STATE CLEARINGHOUSE NO. 2024120924

SANDYLAND SHORELINE PROTECTION PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

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Executive Summary

ES-1 Introduction

The County of Santa Barbara (County) is proposing the Sandyland Shoreline Protection Project (Project) to repair an existing 3,700-foot-long rock revetment and restore its shoreline protection function to current coastal engineering standards. The County Public Works Department, Transportation Division (Transportation Division), as lead agency under the California Environmental Quality Act (CEQA), has prepared this Environmental Impact Report (EIR) in accordance with CEQA, Public Resources Code (PRC) Sections 21000 et seq., the CEQA Guidelines, California Code of Regulations (CCR), Title 14, Sections 15000 et seq., and the County *Guidelines for the Implementation of CEQA*.

This EIR is an informational document that may be used by the public and governmental agencies to review and consider the environmental effects of the proposed Project as part of its decision-making process. The reader should not rely exclusively on the Executive Summary as the sole basis for judgment of the proposed Project and its alternatives. The complete EIR should be consulted for specific information about the environmental effects and the implementation of required mitigation measures, consistent with CEQA.

ES-2 Project Overview

The Sandyland Shoreline Protection Device is a 3,700-foot-long rock revetment located approximately 1.1 miles west of the City of Carpinteria and 500 feet south of Carpinteria Marsh in unincorporated Santa Barbara County. It is located between the single-family residences along Sand Point Drive and the coastline, approximately 1,900 feet south of U.S. Highway 101 (Hwy 101). The revetment was originally constructed in 1964 by the County after the County Board of Supervisors established the Sandyland Seawall Assessment District No. 1 (Assessment District) and the Sandyland Seawall Maintenance District No. 1 (Maintenance District) for the purpose of collecting the funds necessary to construct the revetment. The 1964 design comprised a 3,700-foot-long, steep seaward slope of approximately 1:1 (horizontal;vertical), with a single layer of 2-ton armor stone and a crest elevation of 13.4 feet (relative to the NAVD88 vertical datum). The original revetment was approximately 20 feet wide on average and had a footprint of approximately 1.70 acres along the beach. The Maintenance District is administered by Santa Barbara County with expenses for maintaining the revetment assessed upon the real property lying within the Maintenance District. Each lot is a member of the Maintenance District. The Sandyland Protective Association is the Homeowners Association (HOA) that includes almost all of the District's Members. At the time of the original construction, the homeowners granted the County easements for construction and maintenance of the revetment.

Severe winter storms that occurred during the 1982-1983 El Niño caused damage to the original (1964) revetment from the extreme water levels and large waves. In response to these storms, the County Board of Supervisors declared an emergency and the revetment was repaired and improved to comply with more current coastal engineering standard practices. The emergency repairs, which involved the addition of approximately 40,000 tons of rock over (landward and seaward of) the

existing rock revetment, included raising the crest elevation to 16.4 feet, widening the crest to 10 feet, increasing the armor rock size, and extending the armor seaward to a more hydraulically stable 2:1 slope. The emergency repairs also included constructing a landward splash wall and swale between the revetment crest and residences. These improvements resulted in a 65-foot-wide revetment, with a total area of approximately 5.52 acres. Minor repair work was completed in 1994 and 1998 to replace low, or weak, areas of the revetment with large armor stone to maintain its integrity of the wall was performed in 1994 and 1998. These minor repairs did not affect the average width or overall area of the revetment, but over time, continued exposure to periodic storm events has resulted in damage to the existing revetment. Substantial repairs are now necessary to restore the hydraulic stability and shore protection of the revetment.

The proposed Project would involve the repair and restoration of the 1983 design condition along the entirety of the revetment's 3,700-foot length. The crest elevation and width of the revetment would be restored to 16.4 feet (relative to NAVD88 vertical datum) and 10 feet, respectively, along the length of the revetment. The seaward slope of the revetment would also be restored to a slope of 2:1 (horizontal:vertical). Repair work would also involve minor re-working of the revetment (e.g., shifting of armor rock), using new (imported) armor rock to fill voids in the revetment, correct low-points and reduced width in the revetment crest, and address areas where existing armor rock has been dislodged. The proposed Project is designed to allow for future sea level rise adaptation measures. Future maintenance activities of the revetment would include refilling voids within the revetment that would require import of new armor rock approximately every 10 years or on an emergency as-needed basis in the event of severe storms and damage to the revetment.

In addition to the repair activities, the Project includes improvements to existing coastal dune habitat through the removal of non-native vegetation (e.g., ice plant [*Carpobrotus edulis*]) and planting of native dune vegetation. The Project would also include improvements to coastal access to the beach and across the repaired revetment by constructing new shore-perpendicular accessways across the revetment to the beach, providing public access connection between the beach and Sand Point Road. Of the existing 23 private stairways constructed across the revetment, 11 would be rebuilt to provide residential access. Each of these rebuilt stairways would include handrails and would either remain in their current locations or be slightly relocated or adjusted to avoid sensitive habitats and species to the maximum extent feasible. The remaining 12 private stairways would be removed, and the rock revetment would be restored in those locations.

ES-3 Summary of Project Objectives

The CEQA Guidelines require that the EIR provide a statement of objectives sought by the proposed Project. The purpose of the proposed Project is to repair the existing rock revetment and restore the level of shoreline protection (to current engineering standards) for existing residences, accessory structures, and associated infrastructure along Sand Point Road. The proposed Project must be sustainable for more than 20 years, taking into account long-term fluctuations in coastal processes and future sea level rise (SLR). Specific objectives include:

1. Protection of Residences, Accessory Structures, and Other Infrastructure – Provide a permitted, stable, robust, and durable shoreline protection device, necessary to protect existing single-family residences, accessory structures, and associated infrastructure along Sand Point Road.

2. Protection of the Carpinteria Salt Marsh – Provide a shoreline protection device that continues to provide appropriate stabilization for the Carpinteria Salt Marsh tidal inlet and sustains the marsh over the long-term.
3. Consistency with Existing and Future Coastal Processes – Provide a shoreline protection device that takes into account long-term fluctuations in coastal processes and future SLR, consistent with, and without disruption to, existing ongoing and future natural coastal processes, while also minimizing the need for long-term maintenance activities.
4. Coastal Dune Habitat – Minimize impacts to and improve coastal dune habitat.
5. Coastal Access – Provide adequate vertical and lateral pedestrian access to/from the beach for all current and future users.

ES-4 Scope of the Environmental Impact Report

This EIR assesses the potential environmental impacts that could occur with the implementation of the proposed Project. The EIR evaluates potentially significant environmental impacts including issues raised in public comments received in response to the Notice of Preparation (NOP) and Environmental Scoping Document and at public workshops/hearings (see Appendix A). This scoping process determined that the EIR should analyze the following issues (see Section 3.0.3, *Environmental Resource Areas Analyzed in the EIR*):

- Aesthetics and Visual Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Greenhouse Gases and Climate Change
- Hazards and Hazardous Materials
- Hydrology, Water Quality, and Coastal Processes
- Land Use and Planning
- Noise
- Recreation
- Transportation

This EIR addresses the issues referenced above and identifies potential environmental impacts associated with the proposed Project, pursuant to the provisions of the CEQA Guidelines. The EIR recommends feasible mitigation measures where necessary that would reduce or eliminate adverse environmental effects. Chapter 5, *Other CEQA Considerations,* identifies other environmental resource areas and provides a brief discussion of why the resource areas were not primarily analyzed within this EIR, due to their reduced potential for significant impacts from the proposed Project.

This EIR examines potential direct, indirect, secondary, and cumulative impacts of the proposed Project. These impacts were determined through a rigorous process mandated by CEQA in which existing conditions are compared and contrasted with conditions that would exist once the proposed Project is implemented. The significance of each identified impact was determined using local thresholds of significance informed by the CEQA Guidelines. While the criteria for determining significant impacts are unique to each issue area, the analysis applies a uniform classification of the impacts based on the following definitions:

- *Significant and Unavoidable Impacts*: Potentially significant impacts that cannot be feasibly mitigated or avoided. No measures could be taken to avoid or reduce these adverse effects to insignificant levels. Even after application of feasible mitigation measures, the residual impact

would be significant. If the proposed Project is approved with significant and unavoidable impacts, decision-makers must adopt a Statement of Overriding Considerations (SOC) pursuant to CEQA Guidelines Section 15093 explaining why benefits of the proposed Project outweigh the potential damage caused by these significant unavoidable impacts.

- *Significant but Mitigable Impacts*: Potentially significant adverse impacts that can be feasibly mitigated or avoided. If the proposed Project is approved with significant but mitigable impacts, decision-makers are required to make findings pursuant to CEQA Guidelines Section 15091, stating that impacts have been mitigated to the maximum extent feasible and the residual impact would not be significant.
- *Insignificant Impacts*: These adverse but insignificant impacts do not require mitigation, and they do not require findings to be made. Mitigation measures may still be recommended to improve consistency with policies in the County Comprehensive Plan.
- *No Impacts*: No adverse changes in the environment would result from implementation of the proposed Project.
- *Beneficial Impacts*: Implementation of the proposed Project would result in impacts that would be beneficial to the environment.
- "Cumulative Impacts" (CEQA Guidelines Section 15130) describes impacts that could occur from the combined effect of other past, present, and reasonably foreseeable future projects. For each significant adverse impact identified, mitigation measures are presented where feasible to reduce the impacts to acceptable levels (see Section 3.0.6, *Cumulative Impacts Analysis*).
- "Residual Impacts" identify impact categories after mitigation is applied (see Section 3.0.5, *Mitigation and Monitoring*); in those instances where mitigation measures cannot reduce adverse impacts to less-than-significant levels, impacts are categorized as significant and unavoidable impacts.

Consistent with CEQA Guidelines Section 15126.6(d), the EIR also assesses a reasonable range of alternatives to the proposed Project, including alternatives that could feasibly attain most of the basic objectives while avoiding or substantially lessening one or more of the significant effects of the proposed Project. These alternatives include the No Project Alternative, Alternative 1 – Repair and Improve Existing Revetment with the 1983 Design Footprint, and Alternative 2 – Pull-Back Revetment.

ES-5 Notice of Preparation

The Transportation Division provided the public with the opportunity to comment on the scope of the EIR for the proposed Project through the issuance of a NOP and an Environmental Scoping Document, both of which were made available to Federal, State, and local agencies and interested members of the public. The NOP and Environmental Scoping Document were advertised to the general public and made available electronically on the County's website. The NOP comment period ran for a period of 30 days, from January 2, 2025, to February 3, 2025. During this time, the Transportation Division also hosted a virtual environmental scoping meeting using Zoom on Thursday, January 16, 2025 at 5:30 pm. The complete PowerPoint presentation and a complete audio/visual recording of the presentation can be found on the Project website at: https://www.countyofsb.org/4402/Sandyland-Shoreline-Protection-Project. Comments made during this initial NOP comment period were

primarily focused on the scope and details for design and implementation of the Project, as well as potential for impacts to biological resources, cultural and tribal cultural resources, hydrology and water quality, coastal processes, and effects on public coastal access.

ES-6 Notice of Completion / Notice of Availability

The County prepared and distributed a Notice of Completion (NOC) / Notice of Availability (NOA) for the Draft EIR to relevant agencies and interested parties on July 2, 2026. The NOA provides notice of a minimum 45-day public review and comment period for the Draft EIR, from July 2 to August 17, 2026, and the Draft EIR was made available on the County's website: https://www.countyofsb.org/4402/Sandyland-Shoreline-Protection-Project and at the County of Santa Barbara Public Works Department office located at 105 E. Anapamu Street, Santa Barbara, CA 93101.

ES-7 Summary of Project Impacts

Table ES-1 presents a summary of the impacts, mitigation measures, and residual impacts from implementation of the proposed Project. In summary, the proposed Project would result in significant and unavoidable impacts to noise. Impacts related to biological resources as well as cultural and tribal cultural resources would be potentially significant but mitigatable. Impacts to aesthetics and visual resources, air quality, greenhouse gas (GHG) emissions and climate change, hazards and hazardous materials, hydrology, water quality, and coastal processes, land use and planning, recreation, and transportation would be insignificant.

ES-8 Environmentally Superior Alternative

In addition to the proposed Project, the following alternatives were selected for analysis:

- No Project Alternative
- Alternative 1 – Repair and Improve Existing Revetment with the 1983 Design Footprint
- Alternative 2 – Pull-Back Revetment

Of the alternatives considered, the No Project Alternative eliminates the potentially significant impacts identified for the proposed Project; therefore, it is environmentally superior to any project that would lead to a change in existing conditions. However, the No Project Alternative would not achieve any of the Project Objectives. Without repairing and improving the existing revetment, existing residences, accessory structures, and other infrastructure would be subject to increasing risk of damage or destruction from coastal storms and flooding, particularly when faced with future sea level rise. Further, public coastal access to the shoreline fronting the Project site would remain lacking. CEQA Guidelines Section 15126.6 also states that if the Environmentally Superior Alternative is the No Project Alternative, the EIR shall also identify an Environmentally Superior Alternative from among the other alternatives.

Of the alternatives considered, the No Project Alternative eliminates the short-term, temporary, construction-related impacts identified for the proposed Project; therefore, it is environmentally

superior to any project that would lead to a change in existing conditions. However, the No Project Alternative would not achieve any of the Project Objectives. The revetment would remain in need of substantial repairs and would not be restored to current coastal engineering standards. As such, the No Project Alternative would not meet the primary intent of the proposed Project to ensure continued protection of surrounding residential properties and adapt to SLR hazards. Further, CEQA Guidelines Section 15126.6 also states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

Other than the No Project Alternative, none of the alternatives would result in less adverse impacts when compared to the proposed Project. Significant and unavoidable construction-related noise impacts would continue to occur under Alternative 1 and Alternative 2, and would in fact be more adverse when compared to the proposed Project. Thus, the proposed Project is considered the Environmentally Superior Alternative because it would achieve all of the Project Objectives and would result in a lesser degree of impacts when compared to Alternative 1 and Alternative 2.

Table ES-1. Summary of Impacts, Mitigation, and Residual Impacts

Impact	Mitigation Measure	Residual Significance
Aesthetics and Visual Resources		
Impact AV-1. The proposed Project could potentially result in adverse effects on scenic vistas, the visual character, and/or quality of public views in the area.	No mitigation required	Insignificant
Impact AV-2. The proposed Project could result in new light or glare sources during construction.	No mitigation required	Insignificant
Cumulative Impacts	No mitigation required	Insignificant
Air Quality		
Impact AQ-1. The proposed Project could potentially be inconsistent with applicable air quality plans, including the 2022 Ozone Plan and County Comprehensive Plan, Land Use Element – Air Quality Supplement.	No mitigation required	Insignificant
Impact AQ-2. The proposed Project could result in cumulatively considerable net increases of criteria air pollutants for which the region is in nonattainment under an applicable Federal or State ambient air quality standard.	No mitigation required	Insignificant
Impact AQ-3. The proposed Project could expose sensitive receptors to substantial pollutant concentrations or toxic or hazardous air pollutants.	No mitigation required	Insignificant
Impact AQ-4. The proposed Project could generate odors or other nuisance problems impacting a considerable number of people.	No mitigation required	Insignificant
Cumulative Impacts	No mitigation required	Insignificant

Table ES-1. Summary of Impacts, Mitigation, and Residual Impacts (Continued)

Impact	Mitigation Measure	Residual Significance
Biological Resources		
Impact BIO-1. The proposed Project will result in direct impacts to Environmentally Sensitive Habitat (ESH) (i.e., coastal dune habitat, native vegetation, sandy beach).	MM BIO-4. Worker Environmental Orientation MM BIO-5. Biological Monitor MM BIO-6. Avoidance of Native Dune Mat Vegetation MM BIO-7. Regulatory Permits	Significant but mitigable
Impact BIO-2. The proposed Project will result in direct impacts to a rare plant species (i.e., red sand verbena).	MM BIO-1. Pre-Construction Special-status Plant Surveys MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-3. The proposed Project would potentially result in direct take or disturbance to special-status wildlife species.	MM BIO-3a. Pre-Construction Special-status Wildlife Surveys MM BIO-3b. California Legless Lizard MM BIO-3c. Invertebrates MM BIO-3d. California grunion MM BIO-3e. Burrowing Owls MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-4. Noise levels caused by heavy equipment use in the Project area, including staging areas, access pathways, and construction zones could potentially impact nesting birds in the vicinity.	MM BIO-2 MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-5. Removal of invasive ice plant mats and restoration/enhancement of the dune habitat could potentially disturb native dune mat vegetation and special-status wildlife species; however, impacts would be less than significant and beneficial to the dune ecosystem in the long-term.	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable

Table ES-1. Summary of Impacts, Mitigation, and Residual Impacts (Continued)

Impact	Mitigation Measure	Residual Significance
Impact BIO-6. The proposed Project would potentially result in indirect impacts (e.g., noise, dust, lighting, sediment deposition) to the Carpinteria Salt Marsh Preserve and associated special-status species.	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Cumulative Impacts	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Cultural and Tribal Cultural Resources		
Impact CTCR-1. The proposed Project could occur in or near previously unevaluated historic properties and could cause physical demolition, destruction, relocation, or alteration of historical resources.	No mitigation required	No impact
Impact CTCR-2. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant archaeological resources.	MM CTCR-1. Stop Work at Encounter.	Significant but mitigable
Impact CTCR-3. The proposed Project could disrupt human remains, including those interred outside of dedicated cemeteries.	MM CTCR-1 MM CTCR-2. Encountering Human Remains	Significant but mitigable
Impact CTCR-4. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant tribal cultural resources.	MM CTCR-1	Significant but mitigable
Cumulative Impacts	MM CTCR-1 MM CTCR-2	Significant but mitigable
Greenhouse Gas Emissions		
Impact GHG-1. The proposed Project would result in short-term construction GHG emissions that would not have a significant impact on the environment or result in an inconsistency with the 2030 CAP or other plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.	No mitigation required	Insignificant
Cumulative Impacts	No mitigation required	Insignificant

Table ES-1. Summary of Impacts, Mitigation, and Residual Impacts (Continued)

Impact	Mitigation Measure	Residual Significance
Hazards and Hazardous Materials		
Impact HM-1. The proposed Project could result in a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials.	No mitigation required	Insignificant
Impact HM-2. The proposed Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	No mitigation required	Insignificant
Impact HM-3. The proposed Project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No mitigation required	Insignificant
Cumulative Impacts	No mitigation required	Insignificant
Hydrology and Water Quality Impacts		
Impact HYD-1. Construction activities may temporarily increase turbidity in the Pacific Ocean.	No mitigation required	Insignificant
Impact HYD-2. The proposed Project would potentially contribute to erosion downcoast of the Project site that substantially exceeds the known existing rate or trend.	No mitigation required	Insignificant
Impact HYD-3. The Project would potentially result in substantially increased or decreased rates of erosion on the beach in front of the revetment at the Project site.	No mitigation required	Insignificant
Impact HYD-4. The Project would reduce the exposure of existing development, such as coastal-dependent or coastal-related uses, to substantial risk of loss, damage or destruction from coastal processes	No mitigation required	Insignificant
Cumulative Impacts	No mitigation required	Insignificant
Land Use and Planning Impacts		
Impact LU-1. The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	No mitigation required	Insignificant

Table ES-1. Summary of Impacts, Mitigation, and Residual Impacts (Continued)

Impact	Mitigation Measure	Residual Significance
Impact BIO-6. The proposed Project would potentially result in indirect impacts (e.g., noise, dust, lighting, sediment deposition) to the Carpinteria Salt Marsh Preserve and associated special-status species.	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Cumulative Impacts	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Cultural and Tribal Cultural Resources		
Impact CTCR-1. The proposed Project could occur in or near previously unevaluated historic properties and could cause physical demolition, destruction, relocation, or alteration of historical resources.	No mitigation required	No impact
Impact CTCR-2. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant archaeological resources.	MM CTCR-1. Stop Work at Encounter.	Significant but mitigable
Impact CTCR-3. The proposed Project could disrupt human remains, including those interred outside of dedicated cemeteries.	MM CTCR-1 MM CTCR-2. Encountering Human Remains	Significant but mitigable
Impact CTCR-4. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant tribal cultural resources.	MM CTCR-1	Significant but mitigable
Cumulative Impacts	MM CTCR-1 MM CTCR-2	Significant but mitigable
Greenhouse Gas Emissions		
Impact GHG-1. The proposed Project would result in short-term construction GHG emissions that would not have a significant impact on the environment or result in an inconsistency with the 2030 CAP or other plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.	No mitigation required	Insignificant
Cumulative Impacts	No mitigation required	Insignificant

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List of Acronyms and Abbreviations

Acronym / Abbreviation	Meaning / Usage
°C	degrees Celsius
°F	degrees Fahrenheit
A.D.	Anno Domini
A.M.	ante meridiem
AADT	annual average daily traffic
AAQS	ambient air quality standards
AB	Assembly Bill
ADT	average daily trips
ADU	accessory dwelling unit
APCD	Air Pollution Control District
APN	Assessor Parcel Number
AQAP	Air Quality Attainment Plan
ASBS	Areas of Special Biological Significance
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
Assessment District	Sandyland Seawall Assessment District No. 1
B.P.	Before Present
BEACON	Beach Erosion Authority for Clean Oceans and Nourishment
bgs	below ground surface
BMP	best management practice
Board	Santa Barbara County Board of Supervisors
CA	California
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal-Adapt	California climate adaptation planning website
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBOC	California Burrowing Owl Consortium
CCAA	California Clean Air Act
CCBER	Cheadle Center for Biodiversity and Ecological Restoration
CCC	California Coastal Commission
CCIC	Central Coast Information Center
CCR	California Code of Regulations

Acronym / Abbreviation	Meaning / Usage
CCRWQCB	Central Coast Regional Water Quality Control Board
CCT	California Coastal Trail
CCUS	carbon capture, utilization, and storage
CCVA	Climate Change Vulnerability Assessment
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDIP	Coastal Data Information Program
CDP	Coastal Development Permit
CDPH	California Department of Public Health
CDR	carbon dioxide removal
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERS	California Environmental Reporting System
CESA	California Endangered Species Act
CFC	California Fisheries Coalition
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
cfs/ft	cubic feet per second per foot
CH_4	methane
CHL	California Historic Landmark
CHRIS	California Historical Resources Information System
CLUP	Coastal Land Use Plan
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CoSMoS	Coastal Storm Modeling System
County	County of Santa Barbara
COVID-19	coronavirus disease 2019
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSLC	California State Lands Commission
CTCR	Cultural and Tribal Cultural Resources
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
cy	cubic yard
CZMA	Coastal Zone Management Act

Acronym / Abbreviation	Meaning / Usage
CZO	Coastal Zoning Ordinance
dB	decibel
dBA	A-Weighted Sound Level
dBC	C-Weighted Sound Level
DEM	digital elevation model
DOT	Department of Transportation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWQ	Division of Water Quality
EDR	Environmental Data Resources, Inc.
EDRN	Existing Developed Rural Neighborhood
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERME	Environmental Resource Management Element
ESA	Endangered Species Act
ESH	Environmentally Sensitive Habitat
FAR	floor area ratio
FE	Federally listed Endangered
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FP	Fully Protected Species
FR	Federal Register
FT	Federally listed Threatened
ft	feet
FTA	Federal Transit Administration
GDP	gross domestic product
GHG	greenhouse gas
GSI	GSI Water Solutions
GSP	Groundwater Sustainability Plan
Gt	gigatons
GWP	Global Warming Potential
H_2S	hydrogen sulfide
HAPC	Habitats of Particular Concern
HAPs	hazardous air pollutants
HFCs	hydrofluorocarbons
HLAC	Historic Landmark Advisory Commission
HOA	Homeowners Association
HOV	high-occupancy vehicle

Acronym / Abbreviation	Meaning / Usage
HQTC	High Quality Transit Corridor
HRA	health risk assessment
HUD	U.S. Department of Housing and Urban Development
HVAC	heating, ventilation, and air conditioning
HWTS	Hazardous Waste Tracking System
Hwy 101	U.S. Highway 101
Hz	Hertz
IMS	Industrial Monitoring Station
in/sec	inches per second
IP	Implementation Plan
IPCC	Intergovernmental Panel on Climate Change
IRWMP	Integrated Regional Water Management Plan
ITP	incidental take permit
IWG	Interagency Working Group on the Social Cost of Greenhouse Gases
kHz	kilohertz
KVL	Key Viewing Location
L_{AF}	sound level with A-frequency weighting and fast-time weighting
lbs/day	pounds per day
LCP	Local Coastal Program
L_{dn}	Day-Night Noise Level
L_{eq}	Equivalent Noise Level
L_{max}	Maximum Noise Level
L_{min}	Minimum Noise Level
LOS	Level of Service
LUDC	Land Use and Development Code
LUP	Land Use Plan
LUST	leaking underground storage tank
Maintenance District	Sandyland Seawall Maintenance District No. 1
MBTA	Migratory Bird Treaty Act
$\mu g/m^3$	micrograms per cubic meter
mg/m3	milligram per cubic meter
MHHW	mean higher high water
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MLUDC	Montecito Land Use Development Code
mm	millimeter
MMPA	Marine Mammal Protection Act
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MND	Mitigated Negative Declaration
mpg	miles per gallon
mph	miles per hour
MS4	municipal separate storm sewer system
MT	metric ton
MT CO_2e	metric tons of carbon dioxide equivalent

Acronym / Abbreviation	Meaning / Usage
MTBA	Migratory Bird Treaty Act
MTD	Metropolitan Transit District
MWMP	Municipal Waterways Management Plan
N_2	nitrogen
N_2O	nitrous oxide
Na	sodium
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAVD88	North American Vertical Datum of 1988
NCP	National Contingency Plan
ND	Negative Declaration
NDBC	National Data Buoy Center
NFIP	National Flood Insurance Program
NGVD	National Geodetic Vertical Datum
NHD	National Hydrography Dataset
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Completion
NOD	Notice of Determination
NOE	Notice of Exemption
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O_3	ozone
OAL	Office of Administrative Law
OHP	Office of Historic Preservation
OHWM	ordinary high water mark
OMB	Office of Management and Budget
OPC	Ocean Protection Council
OPR	Governor's Office of Planning and Research
P&D	County of Santa Barbara Planning & Development Department
P.M.	post meridiem
Pb	lead

Acronym / Abbreviation	Meaning / Usage
PEIR	Program Environmental Impact Report
PFCs	perfluorocarbons
pH	potential of hydrogen
PHI	Point of Historical Interest
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
Project	Sandyland Shoreline Protection Project
RCRA	Resource Conservation and Recovery Act
RMS	root mean square
ROC	reactive organic compound
ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RV	Recreational vehicle
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SAIC	Science Applications International Corporation
SANDAG	San Diego Association of Governments
SB	Senate Bill
SBCAG	Santa Barbara County Association of Governments
SBCAPCD	Santa Barbara County Air Pollution Control District
SBMNH	Santa Barbara Museum of Natural History
SC	State Candidate Species
SCAQMD	South Coast Air Quality Management District
SCCAB	South Central Coast Air Basin
SCS	Sustainable Communities Strategy
SE	State listed Endangered
SES	Storrer Environmental Services, LLC
sf	square foot
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Office
SIP	state implementation plan
SLAMS	State and Local Air Monitoring Stations
SLF	Sacred Lands File
SLR	Sea level rise
SO_2	sulfur dioxide
SOC	Statement of Overriding Considerations
SPCC	spill prevention, control, and countermeasure

Acronym / Abbreviation	Meaning / Usage
SR	State Route
SS & SE	Seismic Safety & Safety Element
SSC	Species of Special Concern
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAW	Technical Advisory Committee for Water Retaining Structures
TDM	Transportation Demand Management
TDS	Total Dissolved Solids
THC	total hydrocarbons
TMDL	Total Maximum Daily Load
Transportation Division	County of Santa Barbara Public Works Department, Transportation Division
TRS	total reduced sulfur
U.S.	United States
U.S.C.	U.S. Code
UCNRS CSM	University of California Natural Reserve System Carpinteria Salt Marsh Reserve
UCSB	University of California, Santa Barbara
UNAS	U.S. National Academy of Sciences
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineering
USAF	United States Air Force
USEPA	U.S. Environmental Protection Agency
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
UV-B	ultraviolet rays (harmful)
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
VRP	visibility reducing particles
WDR	Waste Discharge Requirements
WHO	World Health Organization
WIS	Wave Information Study
WMO	World Meteorological Organization
WRCC	Western Regional Climate Center
WSP	WSP USA Inc.
ZEV	zero-emission vehicle

Chapter 1
Introduction

1.1 Project Overview

This Draft Environmental Impact Report (EIR) evaluates the proposed Sandyland Shoreline Protection Project (Project), located outside the City of Caprinteria in unincoroporated Santa Barbara County along the shoreline south/west of Sand Point Road. The proposed Project would repair the existing Sandyland Shoreline Protection Device, a 3,700-foot-long rock revetment, and restore its shoreline protection function to current coastal engineering standards. The proposed repair work would involve the import of new armor rock material and the re-use of dislodged rock material to achieve the 1983 design of the existing revetment, provide dune vegetation enhancement along the landward splash wall, and provide modifications to public and private access to the beach across the revetment. The proposed Project would also include future maintenance and adaptive management activities, as needed, to address damage following major storm events and to address future sea level rise (SLR).

1.2 Project Objectives

The purpose of the proposed Project is to repair the existing rock revetment and restore the level of shoreline protection (to current engineering standards) for existing residences, accessory structures, and associated infrastructure along Sand Point Road. Specific objectives include:

1. Protection of Residences, Accessory Structures, and Other Infrastructure – Provide a permitted, stable, robust, and durable shoreline protection device, necessary to protect existing single-family residences, accessory structures, and associated infrastructure along Sand Point Road.
2. Protection of the Carpinteria Salt Marsh – Provide a shoreline protection device that continues to provide appropriate stabilization for the Carpinteria Salt Marsh tidal inlet and sustains the marsh over the long-term.
3. Consistency with Existing and Future Coastal Processes – Provide a shoreline protection device that takes into account long-term fluctuations in coastal processes and future SLR, consistent with, and without disruption to, existing ongoing and future natural coastal processes, while also minimizing the need for long-term maintenance activities.
4. Coastal Dune Habitat – Minimize impacts to and improve coastal dune habitat.
5. Coastal Access – Provide adequate vertical and lateral pedestrian access to/from the beach for all current and future users.

1.3 Description of the Sandyland Shoreline Protection Device

The Sandyland Shoreline Protection Device is a 3,700-foot-long rock revetment located approximately 1.1 miles northwest of the City of Carpinteria and 500 feet southwest of Carpinteria Marsh in unincorporated Santa Barbara County. The revetment is located between the single-family

residences along Sand Point Road and the coastline, approximately 1,900 feet southwest of U.S. Highway 101 (Hwy 101).



The Sandyland Shoreline Protection Device is a 3,700-foot-long rock revetment that protects 25 single-family residences, ancillary structures, and associated infrastructure along Sand Point Road.

The Sandyland Shoreline Protection Device was originally constructed in 1964 by the County of Santa Barbara after the County Board of Supervisors established the Sandyland Seawall Assessment District No. 1 (Assessment District) and the Sandyland Seawall Maintenance District No. 1 (Maintenance District) for the purpose of collecting the funds necessary to construct the revetment. The 1964 design comprised a 3,700-foot-long, steep seaward slope of approximately 1:1 (horizontal;vertical), with a single layer of 2-ton armor stone and a crest elevation of 13.4 feet (relative to the NAVD88 vertical datum). This original 1964 revetment was approximately 20 feet wide on average and had a footprint of approximately 1.70 acres along the beach. The Maintenance District is administered by Santa Barbara County with expenses for maintaining the revetment assessed upon the real property lying within the Maintenance District. Each lot is a member of the Maintenance District. The Sandyland Protective Association is the Homeowners Association (HOA) that includes almost all of the District's Members. At the time of the original construction, the homeowners granted the County easements for construction and maintenance of the revetment.

Severe winter storms that occurred during the 1982-1983 El Niño caused damage to the original (1964) revetment from the extreme water levels and large waves. In response to these storms, the County Board of Supervisors declared an emergency and the revetment was repaired and improved to comply with more current coastal engineering standard practices. The emergency repairs, which involved the addition of approximately 40,000 tons of rock over (landward and seaward of) the existing (1964) rock revetment, included raising the crest elevation to 16.4 feet (relative to the NAVD88 vertical datum) and widening the revetment crest, with a less steep, 2:1 slope. The emergency repairs included a new 25-foot-wide splash protection buffer between the revetment crest and residences. These improvements resulted in a 65-foot-wide revetment, with a total footprint of

approximately 5.52 acres. Minor repair work was completed in 1994 and 1998 to fill voids and low areas of the revetment with armor stone to maintain its integrity. These minor repairs did not affect the width or overall area of the revetment.

Over time, continued exposure to periodic storm events has resulted in damage to the existing revetment. Substantial repairs are now necessary to restore the hydraulic stability and shore protection functions of the revetment.

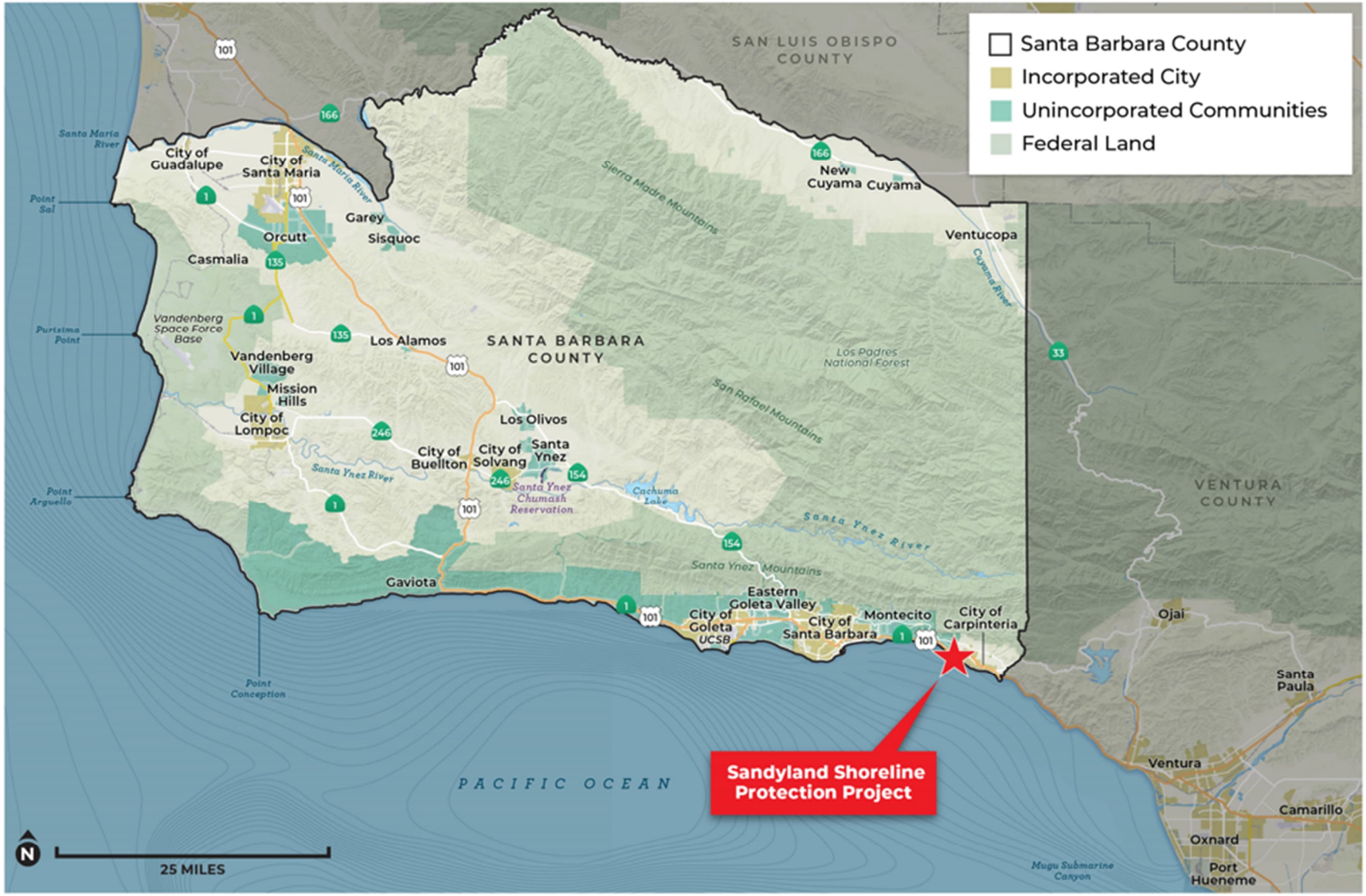
1.4 Purpose of the EIR and Legal Authority

The California Environmental Quality Act (CEQA) was enacted in 1970 by the State legislature to disclose to decision-makers and the public the significant environmental effects of proposed activities, including ways to avoid or reduce those effects by requiring the implementation of feasible alternatives or mitigation measures. CEQA applies to all California government agencies, including local agencies when making certain legislative acts and processing discretionary permits or other discretionary approvals for projects proposed by private applicants. As such, the County is required to undertake the CEQA process before deciding on a project. Pursuant to Public Resources Code (PRC) Section 21067, CEQA Guidelines Section 15367, and CEQA Guidelines Sections 15050 through 15053, the County is the Lead Agency with authority and primary responsibility to perform an environmental review, including certification of an EIR.

Guidance for the process and contents for the preparation of an EIR are codified in PRC Section 21000 et seq. and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). The County's revised *Guidelines for the Implementation of the California Environmental Quality Act of 1970* provide definitions, procedures, and forms to be used in the implementation of CEQA and as a supplement to the CEQA Guidelines for specific operations of the County (County of Santa Barbara 2021). The purpose of these local guidelines is to help the County accomplish the following basic objectives of CEQA:

- To enhance and provide long-term protection of the environment;
- To provide information to government decision-makers and the public regarding the potentially significant environmental effects of a proposed project;
- To identify ways that environmental damage can be avoided or significantly reduced;
- To prevent significant avoidable environmental damage through the utilization of feasible project alternatives or mitigation measures; and
- To disclose and demonstrate to the public the reasons why a governmental agency approved a project in the manner chosen.

The County's *Environmental Thresholds and Guidelines Manual* is intended to assist the public, applicants, environmental consulting firms, and County decision-makers in understanding the use and application of various environmental impact thresholds as they relate to project proposals (County of Santa Barbara 2021). The thresholds of significance in the manual are intended to supplement provisions in the CEQA Guidelines for the determination of significant environmental effects, including CEQA Guidelines Sections 15064, 15065, 15382, and Appendix G. This EIR applies the County's thresholds of significance where applicable, which are described in each environmental resource analysis subsection provided in Chapter 3, *Environmental Impact Analysis*.



Santa Barbara County Regional Setting

FIGURE 1-1

This EIR sets forth the analysis of the potential environmental impacts associated with the proposed Project, informs agencies and the public of related potentially significant environmental effects, evaluates reasonable alternatives, and sets forth mitigation measures and best management practices that would avoid or reduce any potentially significant impacts. While CEQA Guidelines Section 15021(a) requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including social and economic goals, in determining whether and in what manner a project should be approved.

This EIR is based on the existing environmental conditions and regulatory setting for the proposed Project, accounting for data collected from stakeholder and public agency correspondence, field surveys, coastline management plans, past designs and studies of the Sandyland Shoreline Protection Device, as well as case studies for revetments and other shoreline protection devices.

1.5 Scope of EIR Analysis

This EIR assesses the potential environmental impacts that could occur with the implementation of the proposed Project. The EIR evaluates potentially significant environmental impacts including issues raised in public comments received in response to the Notice of Preparation (NOP) and Environmental Scoping Document and at public workshops/hearings (see Appendix A). This scoping process determined that the EIR should analyze the following issues (see Section 3.0.3, *Environmental resource Areas Analyzed in the EIR*):

- Aesthetics and Visual Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Greenhouse Gases and Climate Change
- Hazards and Hazardous Materials
- Hydrology, Water Quality, and Coastal Processes
- Land Use and Planning
- Noise
- Recreation
- Transportation

This EIR addresses the issues referenced above and identifies potential environmental impacts associated with the proposed Project, pursuant to the provisions of the CEQA Guidelines. The EIR recommends feasible mitigation measures where necessary that would reduce or eliminate adverse environmental effects. Chapter 5, *Other CEQA Considerations,* identifies other environmental resource areas and provides a brief discussion of why the resource areas were not primarily analyzed within this EIR, due to their reduced potential for significant impacts from the proposed Project.

Consistent with CEQA Guidelines Section 15126.6(d), this EIR assesses a reasonable range of alternatives to the proposed Project, including alternatives that could feasibly attain most of the basic objectives while avoiding or substantially reducing one or more of the significant effects of the proposed Program. (Chapter 4, *Alternatives* provides detailed descriptions of the alternatives and associated impact analyses.)

1.6 Agencies and Roles

The EIR process for the proposed Project involves the following interested agencies, as specified in the CEQA Guidelines:

Table 1-1. Agencies and Roles

Role	Description
Lead Agency	The County of Santa Barbara Public Works Department, Transportation Division (Transportation Division) is the Lead Agency with principal responsibility for approving or carrying out the proposed Project (CEQA Guidelines Section 15367).
Responsible Agencies	Additional agencies with approval authority over aspects of the proposed Project include the California Coastal Commission (CCC) and the Central Coast Water Quality Control Board (CEQA Guidelines Section 15381).
Trustee Agencies	State agencies with general management authority over specified natural resources of the State when the resources may occur within the County include the California Department of Fish and Wildlife (CDFW) and the California State Lands Commission (CSLC) (CEQA Guidelines Section 15386).
Other Interested Agencies	Additional agencies that may be interested in the proposed Project and its impacts, though would have no authority over approval or adoption of the proposed Project, may include the City of Carpinteria, University of California Reserve System, Santa Barbara County Air Pollution Control District (SBCAPCD), Santa Barbara County Fire Department, Public Health Department, Flood Control and Water Conservation District, and the Native American Heritage Commission (NAHC).

1.7 Environmental Review Process

The EIR process for the proposed Project has involved and will consist of the following steps, as specified in the CEQA Guidelines:

Table 1-2. Environmental Review Process

Step	Description
Notice of Preparation (NOP) / Public Scoping Hearing	The County issued an NOP and Environmental Scoping Document on January 2, 2025, to request comments on the scope of the EIR. The NOP and Environmental Scoping Document were published online at: https://www.countyofsb.org/4402/Sandyland-Shoreline-Protection-Project and circulated to relevant agencies, community organizations, and interested individuals in the County. The NOP was also posted in the Santa Barbara County Clerk's office for 30 days and sent to the State Clearinghouse at the Governor's Office of Planning and Research to solicit State-wide agency participation in determining the scope of the EIR. The Transportation Division also held a virtual environmental scoping meeting using Zoom on January 16, 2025, at 5:30 P.M. A 30-day public comment period closed on February 2, 2025. Appendix A contains the NOPs and Environmental Scoping Documents as well as the input received during the review period which was considered in preparing the scope of this EIR (CEQA Guidelines Section 15082).

Table 1-2. Environmental Review Process (Continued)

Step	Description
Draft EIR and Public Review Period	The County prepared and distributed a Notice of Availability (NOA) for the Draft EIR to relevant agencies and interested parties within the County on July 2, 2026. The NOA provides notice of a minimum 45-day public review and comment period for the Draft EIR, from July 2, 2026, to August 17, 2026, and the Draft EIR is made available on the County's website: https://www.countyofsb.org/4402/Sandyland-Shoreline-Protection-Project and at the County Public Works Department office South Coast location (CEQA Guidelines Section 15087).
Final EIR	The County prepares a Final EIR, which includes the Draft EIR with any necessary revisions, public comments received on the Draft EIR, a list of persons and entities who commented, and written responses to public comments submitted during the Draft EIR public review period. The Final EIR will be available to public agencies at least 10 days before the public hearing when Board of Supervisors considers certifying the Final EIR. The Final EIR will be made available for public review on the County's website: https://www.countyofsb.org/4402/Sandyland-Shoreline-Protection-Project and at the County Public Works Department office South Coast location (CEQA Guidelines Section 15089).
EIR Certification, Project Decision, Findings, and Statement of Overriding Considerations	The County certifies that the Final EIR is completed in compliance with CEQA. Pursuant to PRC Section 21081, when the EIR identifies significant environmental impacts that may result from a project, the lead agency's decision-making body must make specific findings before approving the project and adopting a Statement of Overriding Considerations (SOC). The SOC must provide specific reasons in writing why the decision-makers have determined that the benefits of the proposed project make its unavoidable adverse environmental impacts acceptable (CEQA Guidelines Section 15091 through 15093).
Mitigation Monitoring and Reporting Program (MMRP)	The County adopts a MMRP for mitigation measures that are part of Project approval (CEQA Guidelines Section 15097).
Notice of Determination (NOD)	The County files a NOD with the State Clearinghouse within 5 working days of the action to approve the Project (CEQA Guidelines Section 15094).

1.8 Areas of Known Public Controversy

CEQA requires that an EIR identify areas of controversy known to the Lead Agency, including issues that the Lead Agency and/or the public raise (CEQA Guidelines Section 15123). Based on the NOP scoping meetings, as well as public letters received on the NOP and Environmental Scoping Document (see Appendix A), known concerns include, but are not limited to the following:

- Sediment deposition, erosion, and transport;
- Sea level rise adaptation strategies;
- Protections of Carpinteria Marsh as well as other sensitive habitat and biological resources;
- Short- and long-term beach access and beach-goer safety; and
- Protections for cultural resources and tribal cultural resources.

As previously described, County considered each of the scoping comments provided in Appendix A during the preparation of this EIR.

1.9 EIR Contents and Document Organization

The content and organization of this EIR are designed to meet the current requirements of CEQA and the CEQA Guidelines. The required EIR sections are referenced along with the contents below to demonstrate compliance with CEQA.

Executive Summary (CEQA Guidelines Section 15123) presents a summary of the proposed Project and alternatives, potential impacts and mitigation measures, and impact conclusions regarding growth inducement and cumulative impacts.

Table of Contents (CEQA Guidelines Section 15122) provides a list of the contents included within the EIR.

Chapter 1, Introduction, provides an overview of the EIR process, describes the purpose and scope of this EIR, and outlines required EIR contents and the organization of the EIR.

Chapter 2, Project Description (CEQA Guidelines Section 15124), describes the regional context (e.g., existing agricultural operations within the county) and the objectives for the proposed Project. Importantly, this chapter also provides a description of the proposed uses and permitting requirements that inform the impact analysis provided in the EIR.

Chapter 3, Environmental Impact Analysis (CEQA Guidelines Sections 15125, 15126.2, 15126.4, 15128, and 15130), describes the existing environmental conditions and regulatory framework for each environmental resource area, methods and assumptions used in the environmental impact analysis, criteria for determining significance, impacts that would result from the proposed Project, and feasible mitigation measures that would eliminate or reduce significant impacts. “Cumulative Impacts” (CEQA Guidelines Section 15130) are also discussed, which describe impacts that could occur from the combined effect of other past, present, and reasonably foreseeable future projects. For each significant adverse impact identified, mitigation measures are presented where feasible to reduce the impacts. “Residual Impacts” identify impact categories after mitigation is applied; in those instances, where mitigation measures cannot reduce adverse impacts to insignificant levels, impacts are categorized as significant and unavoidable.

Chapter 4, Alternatives Analysis (CEQA Guidelines Section 15126.6), evaluates the environmental effects of the alternatives to the proposed Project, including the No Project Alternative. It also identifies the environmentally superior alternative.

Chapter 5, Other CEQA (CEQA Guidelines Section 15126.2), identifies insignificant issues areas, as well as secondary impacts, potential growth-inducement, and significant and unavoidable effects.

Chapter 6, List of Preparers (CEQA Guidelines Section 15129), identifies the individuals and/or organizations involved in preparing this EIR and identifies the documents (printed and website references) and individuals (personal communications) consulted during the preparation of this EIR. This chapter includes the agencies and people consulted to ascertain information for the analysis of impacts and support for the conclusions made from the analysis.

Chapter 7, References (CEQA Guidelines Section 15129), provides documents and interviews used as a basis of information for preparing the EIR.

Chapter 8, Mitigation Monitoring and Reporting Program (MMRP) (CEQA Guidelines Section 15091), provides a program for reporting on or monitoring the changes and measures that are either required as part of the program's adoption or made as conditions of approval to avoid or substantially reduce significant environmental effects.

Technical Appendices provide information and technical studies that support the environmental analysis set forth in this EIR, and include the NOP and Environmental Scoping Document, responses to the NOP, and supporting technical studies.

Chapter 2
Project Description

2.1 Introduction and Overview

The County of Santa Barbara (County) Public Works Department, Transportation Division (Transportation Division) is proposing to implement the Sandyland Shoreline Protection Project (Project), which would repair the existing Sandyland Shoreline Protection Device, a 3,700-foot-long rock revetment located on an unnamed beach in unincorporated Santa Barbara County, and obtain necessary permit approvals to authorize the existing revetment and future repair and maintenance activities. The revetment is located seaward of Sand Point Road and provides shoreline protection to 25 single family residences, accessory structures, and associated infrastructure. Past storm events and ongoing coastal erosion have reduced the functionality of the revetment. Several areas of the revetment are in need of substantial repairs to ensure continued protection of surrounding properties. The proposed Project would repair and improve the existing revetment to restore the level of shoreline function to current coastal engineering standards with the ability to adapt to sea level rise (SLR) hazards and obtain the necessary permit approvals to authorize the existing revetment and future repair and maintenance activities.



The proposed Project would repair and improve the existing Sandyland Shoreline Protection Device, a 3,700-foot-long rock revetment, which has provided shore protection to the adjacent residences since its construction in 1964. Coastal processes and ongoing erosion have damaged the seawall, resulting in a need for repairs to restore the shoreline function to coastal engineering standards.

2.2 Existing Setting

2.2.1 Project Location and Ownership

The Project site is located on the coastline of southeast unincorporated Santa Barbara County, approximately 1.1 miles northwest of the City of Carpinteria (see Figure 2-1). The Project site includes a 3,700-foot-long rock revetment stretching across an unnamed beach between Santa Clause Lane Beach and the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. The existing revetment is approximately 65 feet wide on average, covering a total of approximately 5.52 acres across its entire length. Regional access to the Project site is provided by U.S. Highway 101 (Hwy 101) to the north of the Project site. Local access is provided via Santa Claus Lane from Hwy 101 and Sand Point Road, which is a gated private roadway.



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Project Site Setting

FIGURE 2-1

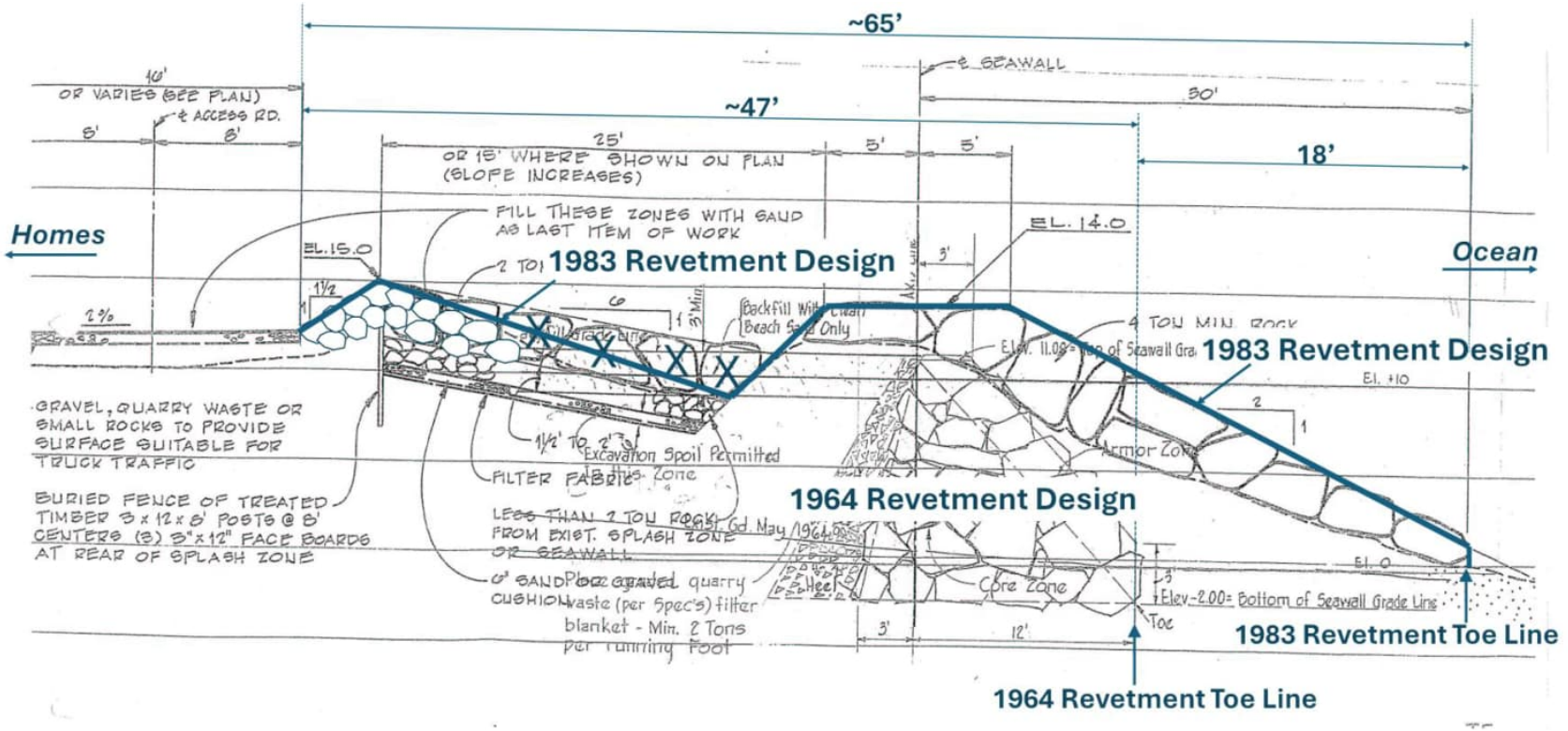
The Project site has a land use designation of Single Family; 3.3 units per acre (Res-3.3) and a zoning designation of single-family (10-R-1). Surrounding land uses include single-family residential to the northwest, open space (Carpinteria Salt Marsh) to the north and east, and the Pacific Ocean to the south and southwest.

At the time of the revetment's initial construction in 1964, the Santa Barbara County Board of Supervisors (Board) established the Sandyland Seawall Assessment District No.1 (Assessment District) and the Sandyland Seawall Maintenance District No.1 (Maintenance District) pursuant to provisions of the Improvement Act of 1911, Division 7 of the Streets and Highways Code of the State of California. The purpose of the Assessment District was to collect adequate funds necessary to construct the revetment. The Maintenance District was formed for the purpose of collecting adequate funds to maintain the revetment. The Maintenance District is administered by the County with expenses for maintaining and operating the revetment assessed upon the real property lying within the Maintenance District. Each of the 25 residences are a member of the Maintenance District. The Sandyland Protective Association is the Homeowners Association (HOA) that includes almost all of the Maintenance District's members. At the time of the original construction, the homeowners granted the County easements for construction and maintenance of the revetment.

2.2.2 Project Background and Existing Conditions

As described in Section 1.3, *Description of the Sandyland Shoreline Protection Device*, the revetment was originally constructed in 1964. Its design included a 3,700-foot-long steep seaward slope of approximately 1:1 (horizontal:vertical), 2-ton armor stone, and a crest elevation of 13.4 feet (relative to the NAVD88 vertical datum). The original revetment was approximately 20 feet wide on average and had a footprint of approximately 1.70 acres along the beach. In response to the severe winter storms during the 1982-1983 El Niño, which damaged the structure and residential properties, the Board declared an emergency, and the revetment was improved to comply with more current coastal engineering standard practices for that time. The emergency repairs, which involved the addition of approximately 40,000 tons of rock over (landward and seaward of) the existing (1964) rock revetment, included raising the crest elevation from 13.4 feet to 16.4 feet (relative to the NAVD88 vertical datum), widening the crest to 10 feet, increasing the armor rock size, extending the armor seaward to a more hydraulically stable 2:1 slope, and constructing a landward splash wall and swale. These improvements resulted in a 65-foot-wide revetment, with a total area of approximately 5.52 acres. Minor repair work was completed in 1994 and 1998 to fill voids and low areas of the revetment with armor stone to maintain its integrity. These minor repairs did not affect the width or overall area of the revetment.

As described further in Appendix C, the crest elevation of the existing revetment ranges between 14 and 19 feet NAVD88, compared to its original design height of 16.4 feet NAVD88. The revetment remains approximately 65 feet wide, covering a total of approximately 5.52 acres, but the seaward slope of the existing revetment is steeper than its 1983 design and the crest width is narrower in most areas than the 10-foot design crest width. Additionally, large void spaces are present between the individual rocks. The "splash wall" provides flood protection for wave overtopping of the primary rock revetment and is comprised of a buried fence of treated timbers (likely now no longer present) and smaller rock. The existing swale (between the revetment and splash wall) is filled with sand and approximately 0.2 acres of native dune matt vegetation and approximately 1.5 acres of non-native species (e.g., ice plant [*Carpobrotus edulis*]).



The Sandyland Shoreline Protection Device was originally constructed in 1964 to provide shoreline protection to landward residences. In 1983 the rock revetment was improved by increasing the crest elevation and width, building a more stable seaward slope, and providing a landward feature for wave overtopping mitigation.



A number of the Sandyland homeowners have constructed private access stairways across the revetment.

The Sandyland community is a private neighborhood with restricted private access for residents and guests via a security guard and security gate. No existing public access is provided to the revetment or the unnamed beach fronting the residential properties along Sand Point Road. The unnamed beach is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. A total of 23 shore-perpendicular stairways have been constructed across the revetment to provide access for residences along Sand Point Road to/from the beach. The stairways vary in material and design and the majority do not include handrails. The stairways were not constructed as part of the 1964 or 1983 designs and were likely added independently by individual property owners over the years.

2.2.3 Permitting History

The original revetment was approved by the County and constructed in 1964 in an area of shoreline leased to the County by the California State Lands Commission (CSLC). The 1964 actions were implemented before the California Environmental Quality Act (CEQA) or the California Coastal Act were enacted in 1970 and 1976, respectively, and thus were not subject to the provisions of these regulations. Repair and maintenance work on the revetment and revetment access road occurred in 1980-1981 and 1981-1982, respectively, which pre-dated County adoption of the Coastal Zoning Ordinance (CZO).

Following enactment of the California Coastal Act, in 1981 the California Coastal Commission (CCC) certified most of the County's Coastal Land Use Plan (CLUP), and as part of the preparation of its Local Coastal Program, the County adopted its Coastal Zoning Ordinance (CZO; Article II – CZO of the County's Land Use and Development Code [LUDC]) in 1982.

In 1983, the County prepared plans to repair and enhance the 1964 revetment in response to the severe 1983 winter storms (refer to above). Exceptions included in the County's CZO at the time – which were applicable to repair and maintenance activities and development on tidelands, submerged lands, or public trust lands – exempted the proposed 1983 improvements from issuance of a Coastal Development Permit (CDP). The plans were approved by the County and the repairs and improvements were implemented in 1984. As part of these repairs, the County reinforced the seawall approximately 18 feet seaward, into the CSLC lease area. Repair work also resulted in revetment enhancement work that extended southward onto private property/State fee-owned sovereign lands below the ordinary high water mark at 501 Sand Point Road to the original and previously conveyed seawall easements.

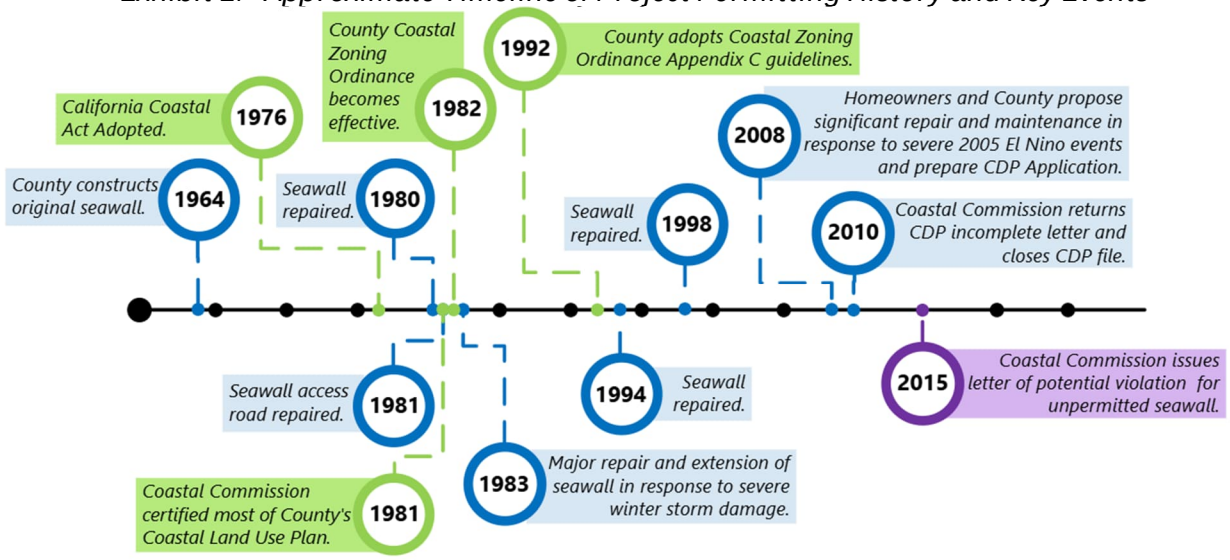
In 1992, the County adopted Ordinance No. 3312 which established the County Guidelines on Repair and Maintenance and Utility Connection to Permitted Development (Appendix C of the CZO). These guidelines established new requirements for the issuance of CDP and compliance with the permitting requirements of the CZO for any method of repair and maintenance of a seawall revetment (Section III – Repair and Maintenance Activities Requiring a Permit, Appendix C of the CZO).

Further, repairs to the seawall took place in 1994 and 1998. The plans for the repair and maintenance activities were approved by the County, but CDPs pursuant to the requirements of the County's CZO were not issued for these actions.

While initial construction of the 1964 revetment and implementation of the 1983 improvements either pre-dated the California Coastal Act and County CLUP or were exempt from issuance of a CDP under the CZO at the time, more recent repair and maintenance activities have occurred without CDPs.

Permitting issues surrounding past actions were raised by CCC staff, and in 2008 the County submitted a CDP application seeking after-the-fact authorization from the CCC for the revetment. The application was returned in 2010 as incomplete and the file was closed by the CCC. Then, in 2015, the CCC issued a letter of potential violation for an unpermitted seawall. For the past decade, the County and Sandyland homeowners have sought to obtain the necessary permit approvals and grant of easements to cover areas of the seawall covered under previous easements, as well as the lands covered by the expanded facilities. However, these issues remain unresolved.

Exhibit 1. Approximate Timeline of Project Permitting History and Key Events



2.2.4 State Tidelands

The location and extent of the State's fee-owned sovereign lands are generally defined by reference to the ordinary high water mark of tide and submerged lands, as measured by the mean high tide line. The boundary remains ambulatory except where there has been fill or artificial accretion or the boundary has been fixed by agreement or court decision.

The CSLC and the Sandyland homeowners have conflicting claims as to ownership of the real property located under portions of the rock revetment. CSLC staff contends that the legal boundary between the privately-owned uplands and the sovereign state tidelands is generally along the mean high tide

line surveyed in 1964 in certain areas and the 1983 interpolated mean high tide line in other areas. The 1983 mean high tide line is interpolated from contours depicted on County of Santa Barbara Project No. F88009 & F88010 seawall improvement plans titled "Construction Plans for Seawall Improvements" dated June 24, 1983.

CSLC staff and the Sandyland homeowners have been involved in extended discussions over many years, including mediation in 2016. To avoid potential costly, protracted litigation with uncertain results, the parties agreed to a lease between the CSLC and the County with no prejudice as to the determination of jurisdiction, ownership or boundaries. Under the lease agreement, prior to the expiration or sooner termination of the lease, the County must remove the existing rock revetment from the lease area or the County would need to apply for a new lease if the County intends to retain the revetment after the current lease expires on December 10, 2028. The area subject to the lease agreement between the CLSC and the County extends from the northwestern-most property line of 845 Sand Point Road (Assessor Parcel Number [APN] 005-460-040) to the southeastern-most property line of 539 Sand Point Road (APN 004-098-010). The lease area does not extend onto portions of 501 Sand Point Road (APN 004-098-011).

The presence of the rock revetment, which provides primarily a private benefit to the upland homeowners, may represent an impediment to public access and enjoyment of the adjacent beach; however, the lease expressly requires that the lessee shall support and facilitate public access and not prohibit, interfere, or otherwise restrict the publics access, use, and enjoyment of any areas of state-owned lands within or adjacent to the lease premises. Additionally, the proposed lease requires the County to maintain the revetment in good order and repair and indemnify the State for any liability incurred as a result of repairing, operating, and maintaining the revetment.

2.3 Proposed Project

2.3.1 Project Overview



Due to past storm events and ongoing coastal processes, the existing revetment is smaller and steeper than its 1983 design. The revetment also contains multiple large voids within the rock armor. This degradation has reduced the functionality of shoreline protection.

The existing revetment provides shoreline protection to 25 adjacent residences, accessory structures, and associated infrastructure. Past storm events and ongoing coastal processes have reduced the functionality of the revetment. The proposed Project would repair and restore the 1983 design of the existing 3,700-foot-long revetment by placing new armor rock, raising the crest elevation of the revetment, adjusting the seaward slope of the revetment, and widening the crest. These repairs and improvements would improve the revetment's ability to protect properties from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to SLR hazards. Further, the

proposed Project would serve to fully permit the revetment and remediate past violations associated with unpermitted shoreline development and repair and maintenance activities.

2.3.2 Project Description

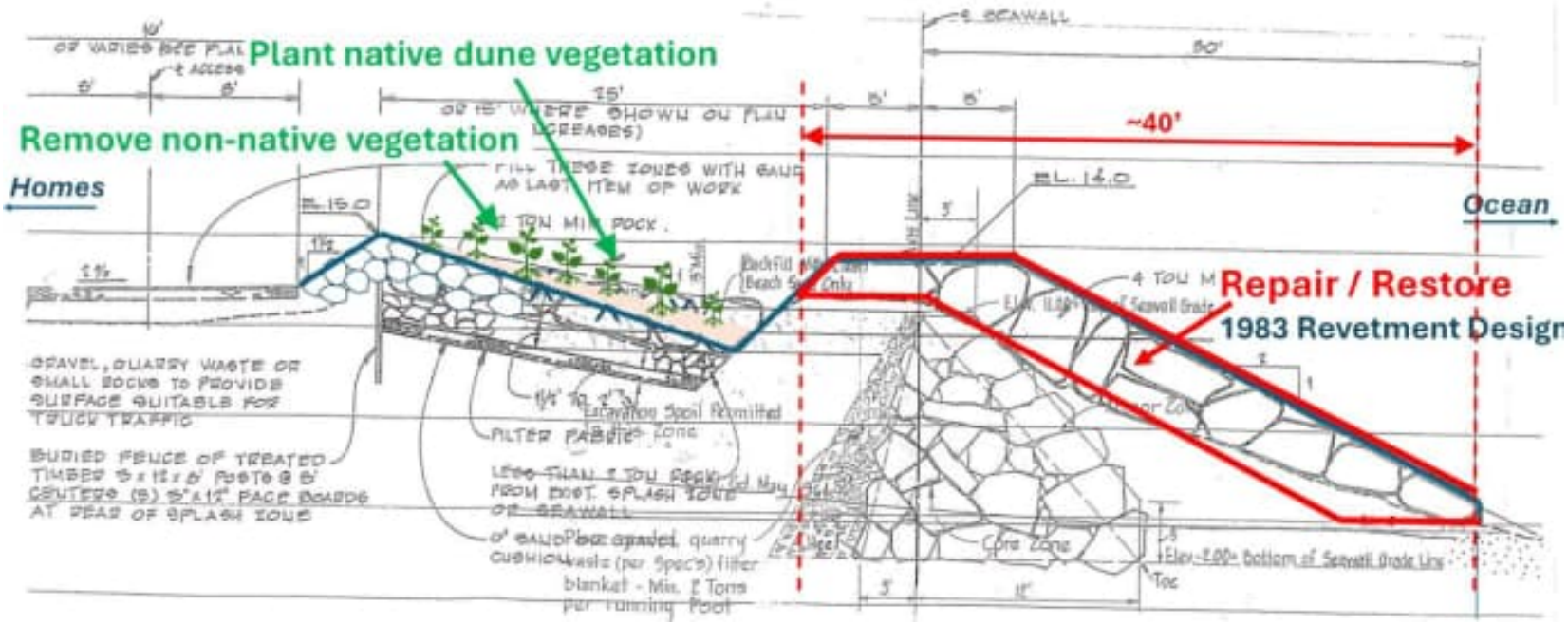
Repair of Existing Revetment

The proposed Project would involve the repair and restoration of the 1983 design condition along the entirety of the revetment's 3,700-foot length. The crest elevation and width of the revetment would be restored to 16.4 feet (relative to NAVD88 vertical datum) and 10 feet, respectively, along the length of the revetment. The seaward slope of the revetment would be restored to a slope of 2:1 (horizontal:vertical). Repair work would also involve minor re-working of the revetment (e.g., shifting of armor rock), using new (imported) armor rock to fill voids in the revetment, correct low-points and reduced width in the revetment crest, and address areas where existing armor rock has been dislodged. Up to 15,000 tons of new 3- to 5-ton armor rock would be imported from a local quarry to repair the revetment. Existing displaced armor rock would be salvaged and re-used to fill revetment voids to the extent practicable. No repairs would be made to the landward "splash wall" section of the revetment, and the footprint of the revetment would remain unchanged.

Future maintenance activities of the revetment would include refilling voids within the revetment that would likely require import of new armor rock approximately every 10 years or on an emergency as-needed basis in the event of severe storms and damage to the revetment.

The proposed Project is also designed to allow for future SLR adaptation measures. Based on an assessment of coastal hazards prepared for the proposed Project (see Section 3.7, *Water Quality, Hydrology, and Coastal Processes*; see also Appendix I), the Project site and rock revetment are susceptible to future SLR hazards, including more frequent events of wave runup and overtopping, and flooding. Depending on the extent of future SLR, the proposed Project is designed to allow for the import and placement of up to 41,000 tons of additional rock to raise the crest elevation to up to 22 feet (relative to NAVD88 vertical datum) to accommodate SLR of up to 2.8 feet.[1] Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessway, and dune habitat occurring more than once per year.

[1] The armored rock would be placed within the swale between the revetment and the splash wall and would not increase the footprint of the revetment.



The proposed Project would repair and restore the existing 1983 revetment design. The crest elevation and width of the revetment would be restored to 16.4 feet (relative to NAVD88 vertical datum) and 10 feet, respectively, along the length of the revetment. The seaward slope of the revetment would also be restored to a slope of 2:1 (horizontal:vertical).

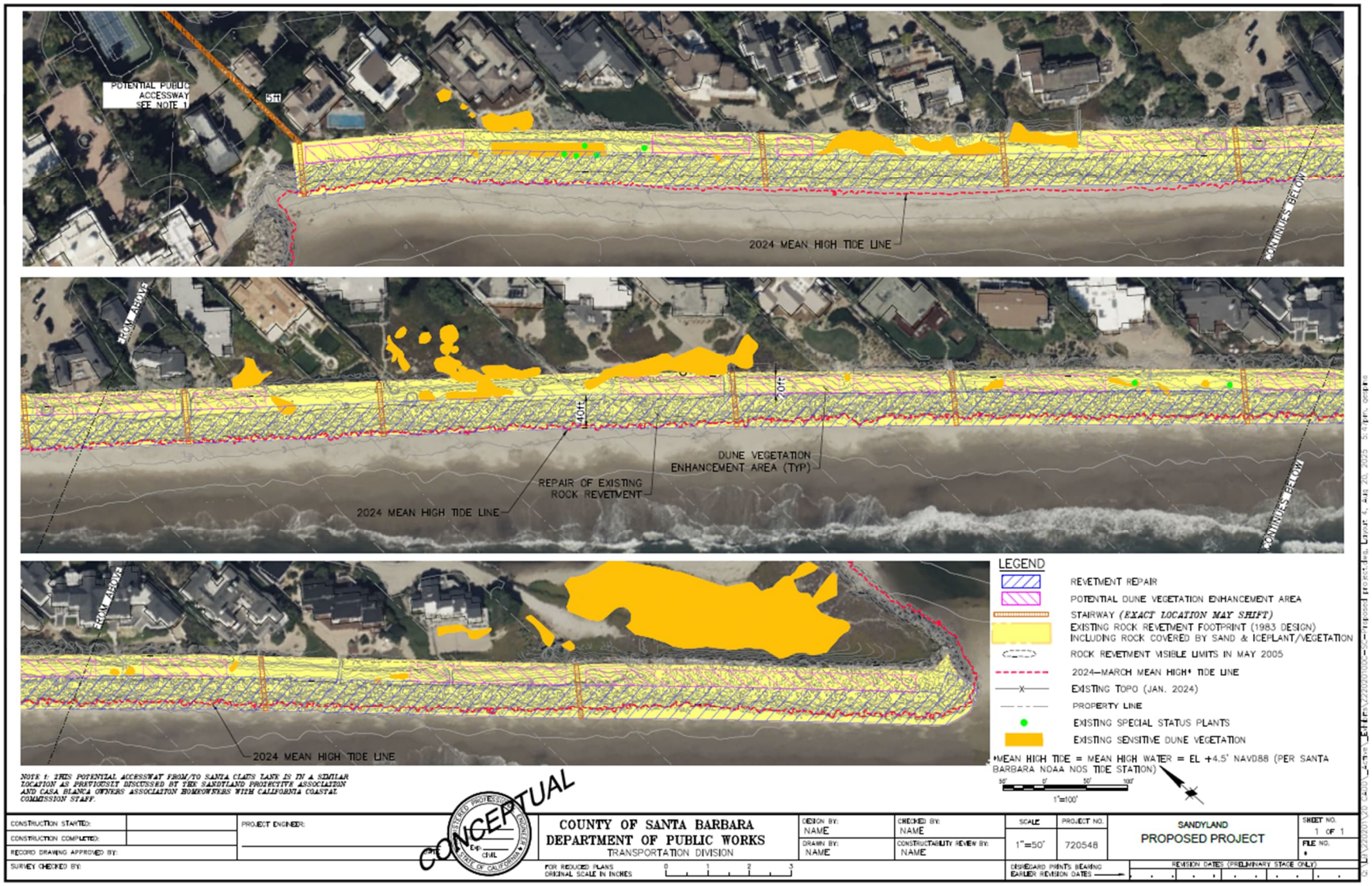


Figure 2-2. Proposed Project Plan View

Dune Vegetation Enhancement

In addition to the repair activities, the proposed Project includes improvements to existing coastal dune habitat. The proposed Project would involve the removal of approximately 1.5 acres of existing non-native vegetation (e.g., ice plant), and the planting of native dune vegetation in selective areas along the length of the splash wall. To support new dune vegetation and establish dune habitat, up to 3,000 cubic yards (cy) of sand would be imported and placed in the areas to be planted with native dune vegetation. However, given the existing swale currently provides an area to retain and percolate wave overtopping seawater, the addition of imported sand would be kept to a minimum and strategically placed in locations which do not affect water overtopping capacity. Further, no sand would be placed where native dune vegetation currently exists. The proposed dune vegetation would provide approximately 1 acre of habitat enhancement, as well as aesthetic appeal and functional support of the splash wall.

Coastal Access Improvements

The proposed Project would also include improvement to coastal access to/from the beach and across the repaired revetment. Under the Project, 11 of the 23 existing private stairways would be reconstructed to provide residential access over the revetment. Each of these rebuilt stairways would include handrails and would either remain in their current locations or be slightly relocated or adjusted to avoid sensitive habitats and species to the maximum extent feasible. The remaining 12 private stairways would be removed, and the rock revetment would be restored in those locations. The reconstructed stairways would span the entire width of the revetment, providing continuous access between the landward and seaward sides. Each stairway would be anchored to armor stone along the splash wall and seawall and would include a free-span bridge crossing over the swale.

The proposed Project would also construct a new stairway facility to accommodate potential future public access to the beach west of the residence at 845 Sand Point Road. If public access easements were to be dedicated by both homeowners' associations, this facility could enable a public pathway connecting the beach to either the private roadway owned by the Casa Blanca Beach Estates Owners Association or the common property identified as APN 005-600-018. This connection could facilitate a continuous horizontal public access route linking the beach areas at Santa Claus Lane and Sandyland Beach. Establishing such a public accessway would require installation of appropriate signage and barriers to prevent trespass onto private property, as well as minor surface grading to construct a natural-surface trail.

Under the proposed Project, 11 of the other existing 23 private stairways would be rebuilt to provide residential access across the revetment. Handrails would be installed on each of the 11 rebuilt stairways. These 11 stairways would be reconstructed within their existing location, or would otherwise be slightly relocated or adjusted so as to avoid sensitive habitats and species to the maximum extent feasible. The remaining 12 existing private stairways would be demolished, and the rock revetment would be restored in these locations. Each of the 11 new stairways would be designed to provide access over the entire revetment, connecting the landward and seaward sides of the revetment. Each stairway would be constructed atop and anchored to armor rock on the splash wall and seawall, with a free span bridge across the swale.

The proposed Project would also dedicate a new 5-foot-wide trail/public accessway providing a publicly accessible connection from Santa Claus Lane to the beach at Sand Point Road. From the

intersection of Santa Claus Lane and Sand Point Road, the accessway would follow the road shoulder of Sand Point Road across the Union Pacific Railroad tracks. The accessway would then cross to the west across a vacant area of APN 005-460-038 to connect to private roadway belonging to the Casa Blanca Beach Estates Owners Association on APN 005-600-018. If public access easements were to be dedicated by both HOAs, the County could partner with the homeowners associations to develop a safe, California Public Utilities Commission (CPUC) compliant at-grade pedestrian rail crossing modeled after the Santa Claus Lane Pedestrian At-Grade Rail Crossing Plan Project (see Section 3.0.6, *Cumulative Impacts Analyses*).

Dedication of the new public accessway would require the installation of new signage and barriers to keep the public from trespassing onto private property, as well as minor surficial grading work to construct the trail natural surface.

2.3.3 Project Construction

Construction Schedule

Project construction and repair of the existing revetment is anticipated to occur no earlier than 2028 over a period of approximately 6 to 7 months. Construction would involve mobilization/demobilization of equipment, demolition of some of the existing coastal stairways, removal of non-native vegetation, the import of rock and sand material to the site, the placement and reworking of rock material, dune vegetation planting, and the construction of new public and private stairways. An estimated schedule for construction of each of these activities is provided in Table 2-1. It is not known when future maintenance activities or improvements to the revetment in response to SLR would occur, but it is anticipated that when such activities do take place, the duration of construction and repair work would be shorter in duration than initial repair of the existing revetment.

Construction work would primarily occur between the hours of 7:00 A.M. and 7:00 P.M.; however, work outside of these hours may be necessary based on tidal conditions. Construction activity on the sandy beach area would occur during lower tide hours, to the extent possible, and no equipment or material staging would occur on the beach during non-work hours. No work would occur during storm wave conditions. An average of 10 construction workers would be on-site during construction.

Table 2-1. Estimated Construction Durations for Repair of Existing Revetment

Activity	Duration	Start Date	End Date
Mobilization	20 working days (1 month)	Q2 2028	Q2 2028
Remove Non-Native Vegetation and Haul Off-site	5 working days (0.25 months)	Q2 2028	Q2 2028
Import/Haul Rock	70 working days (3.5 months)	Q2 2028	Q3 2028
Place/Rework Imported and Existing Rock			
Construct Private and Public Access Stairways	40 working days (2 months)	Q3 2028	Q3 2028
Dune Vegetation Enhancement (Import/Haul and Place Sand and Planting)	20 working days (1 month)	Q4 2028	Q4 2028

Activity	Duration	Start Date	End Date
Demobilization	15 working days (1 month)	Q4 2028	Q4 2028

Note: Estimated construction dates are for the initial 15,000-ton repair; future improvements for future SLR would have similar import/place rock activity durations.

Construction Staging Area and Equipment

Equipment and material staging for the proposed Project, including future maintenance activities, would occur on two existing vacant lots located at 865 Sand Point Road and 501 Sand Point Road at the northwestern and southeastern extents of the Project site, respectively. Hazardous materials would only be stored in the defined staging areas. Construction access would be provided along County easements perpendicular to the shoreline along properties located at 755 and 501 Sand Point Road. Construction best management practices (BMPs) would be installed at the staging areas for erosion control, soil stabilization, soil tracking control, and waste management (see discussion of *Construction BMPs* below). Additionally, a water truck would be used for dust suppression.

Project construction would likely entail the use of two track-mounted long-reach excavators, two front-end loaders, and numerous haul trucks for the import of armor rock and sand and concrete trucks for construction of the stairs. It is assumed that construction activities, which would occur along the unnamed beach fronting the revetment, would generally be limited to heavy construction equipment moving the 3- to 5-ton armor rock and imported sand.

Rock work would likely occur in limited (approximately 30 linear feet segments) each working day. In order to access the buried toe section of the revetment, it would likely be necessary to excavate sand in order to place rock. The excavated trench would be backfilled each day with sand before the tide comes in.

Seeding and planting of the native dune vegetation would be implemented using hand tools (e.g., shovels) and no heavy construction equipment would be required.

Material Import / Truck Hauling

As previously described, repair of the revetment and installation of dune vegetation would require the import of an estimated 15,000 tons of armor rock and 3,000 cy of sand, respectively. Armor rock material is assumed to be imported from either the Bee Rock Quarry, located in Santa Barbara approximately 35 miles to the northwest of the Project site, or from Pacific Rock Inc. Quarry, located in Camarillo approximately 40 miles to the southeast of the Project site. Assuming 10 tons per truck, the import of 15,000 tons of rock material would require an estimated 1,500 roundtrip haul truck trips. The approximately 3,000 cy of sand would similarly be imported from a local quarry (i.e., Bee Rock Quarry or Pacific Rock Inc. Quarry) or other opportunistic sand sources with beach quality sand. Assuming 14-16 cy haul truck size, import of sand material necessary for the Project would require an additional estimated 200 roundtrip haul truck trips. Approximately 30 additional haul truck trips would be required for hauling of non-native ice plant vegetation for disposal offsite, as part of the dune vegetation enhancement activities. Additionally, approximately 10 haul truck trips would be required for hauling the construction debris from the demolition of existing stairways and approximately 11 concrete truck trips would be required for construction of the new stairways. In total, construction activities would require an estimated 2,752 roundtrip truck trips (see Table 2-2).

Table 2-2. Estimated Haul Truck Trips Required during Construction Activities

Activity	Materials	Haul Truck Trips
Repair of the revetment	15,000 tons of armor rock	1,500 roundtrip haul truck trips
Installation of dune vegetation	3,000 cy of sand	200 roundtrip haul truck trips
Hauling non-native ice plant vegetation for disposal offsite	--	30 roundtrip haul truck trips
Removal of demolition debris (existing stairways)	--	10 roundtrip haul truck trips
Construction of the new stairways	--	11 concrete truck trips
	Total	2,752 truck trips

Haul trucks headed southbound along Hwy 101 (e.g., to Pacific Rock Inc. Quarry) would travel along Sand Point Road before crossing the railroad tracks and a pedestrian crosswalk and entering a roundabout on Santa Claus Lane and existing onto Hwy 101. Haul trucks headed north bound on Hwy 101 (e.g., Bee Rock Quarry) would continue through the traffic circle exiting onto Santa Claus Lane, turning right onto the underpass along Padaro Lane and turning left onto the onramp. Smaller 10-ton heavy haul trucks would be used in order to avoid the need for off-site transportation network improvements (e.g., demolition and reconstruction of the traffic circle) to accommodate larger 20-ton heavy haul trucks. Traffic control personnel would also be stationed at the west and south entrances to the traffic circle during all materials delivery to and removal of debris from the Project site.

Construction Best Management Practices

The following construction BMPs are proposed as a part of the proposed construction and maintenance activities to minimize or avoid possible impacts to biological resources, hazards, hydrology, water quality, and coastal processes, and transportation. These measures would be printed on all construction plans and/or specifications and discussed during the pre-construction meeting(s).

1. The contractor and/or construction crew would monitor the tides closely. Construction work below the mean high water line would be minimized to the maximum extent feasible and, as possible, would be limited to times when tidal waters have receded from the work area.
2. Construction work would not occur during storm wave conditions with the potential to impact construction operations.
3. Construction equipment and/or construction material not essential for construction work would not be allowed in the intertidal zone at any time.
4. Imported rock would be free of debris and contamination.
5. Existing debris within the revetment section would be removed and disposed of off-site.
6. Service and refueling of equipment would occur in the defined staging areas and would not occur on or within 100 feet of the beach or Carpinteria Salt Marsh. All motorized equipment used would be maintained in proper working condition and would be free of drips and leaks of coolant, hydraulic fluids, and petroleum products. No equipment would be used for the proposed Project unless such equipment is free of leaks and drips. Any equipment or vehicles driven and/or operated for the proposed Project would be checked and maintained daily to prevent leaks of

materials. Any leaks would be captured in containers until the equipment is moved to a repair location.

7. Any hazardous materials would be stored only within the defined staging areas. Containment and cleanup plans would be prepared and implemented for the immediate cleanup of fluid or hazardous materials spills. A spill prevention and clean-up kit (including socks, absorbent pads, kitty litter, broom, dustpan, shovel, and container for dirty absorbent material) would be available on-site for immediate use in case of an accidental spill.
8. Equipment storage and parking of vehicles would not be allowed on the beach.
9. Construction equipment would be stored overnight in the pre-determined staging area at least 100 feet from the beach and Carpinteria Salt Marsh. Construction material (with the exception of rock) would be stockpiled/staged in the pre-determined staging area. Rock may be stored on the beach, in limited quantities, as needed to support daily construction activities.
10. Erosion and sediment controls would be developed and implemented, with daily inspections to assess and maintain the integrity and effectiveness of erosion control measures. Corrective actions and repairs would be carried out immediately for ineffective BMPs. Only non-monofilament (e.g., burlap) straw wattles would be employed onsite to protect wildlife from being ensnared.
11. The footprint of construction activities would be minimized to the extent feasible, to minimize impacts on the environment. Use of construction equipment would be limited to designated accessways and identified work/staging areas.
12. All trash and food within the work area would be placed in land-side containers with secure lids before the end of each workday. All trash/litter and construction debris would be disposed of off-site in accordance with State and local regulations. All trash would be removed from the Project site on a daily basis.
13. During construction, trenches would likely be excavated along the base (toe) of the revetment. These trenches would be excavated during low tide hours and backfilled before the tide comes back in.
14. Dust generated by the construction activities would be kept to a minimum with a goal of reducing impacts to adjacent habitat and nearby residences. A water truck would be used, as necessary, to prevent excessive dust.
15. Wet concrete would not be discharged to, or allowed to contact surface waters. Forms for any concrete structure would be constructed to prevent leaching of wet concrete. Concrete process water would not be allowed to enter the water. Any process water/contact water would be routed to a contained area for treatment and would be disposed of at an upland location. All demolished concrete would be removed from the Project site and disposed of at an appropriate facility.
16. The contractor and/or construction crew would be responsible for the preparation of a spill prevention, control, and countermeasure (SPCC) plan to be used for the duration of the proposed Project to safeguard against an unintentional release of fuel, lubricants, or hydraulic fluid from construction equipment. The contractor would be required to maintain oil-absorbent materials at the Project site for use in the event of a spill or if any oil product is observed in the water.

a. The SPCC plan would outline BMPs, responsive actions in the event of a spill or release, and notification and reporting procedures. The SPCC plan would also outline contractor management elements such as personnel responsibilities, Project site security, site inspections, and training.

b. The SPCC plan would outline what measures would be taken by the contractor and/or construction crew to prevent the release or spread of hazardous materials, either found on site and encountered during construction but not identified in contract documents, or any hazardous materials that the contractor stores, uses, or generates on the Project site during construction activities. These items include, but are not limited to, gasoline, oils, and chemicals.

c. The contractor would maintain, at the job site, the applicable spill response equipment and material designated in the SPCC plan.

d. The contractor would regularly check fuel hoses, oil drums, oil or fuel transfer valves, and fittings for leaks, and would maintain and store materials properly to prevent spills.

e. No petroleum products, fresh cement, lime, concrete, chemicals, or other toxic or deleterious materials would be allowed to enter surface waters.

f. There would be no discharge of oil, fuels, cleaning solvents or chemicals to surface waters, or onto land where there is a potential for entry into ground or surface waters.

17. Excavations would be monitored by the contractor for the possible presence of contamination. Contaminated soil and groundwater (if encountered) would be handled, stored, transported, and disposed of in accordance with all Federal, State, and local regulations, including those for worker safety.

18. The contractor and/or construction crew would be responsible for implementation of BMPs to prevent the spread of contaminated soil and groundwater (if encountered) to other properties (e.g., trucks would be loaded in a manner that prevents the spilling or tracking of contaminated soil. Loose material falling onto the exterior of the truck would be removed before the truck leaves the loading area. Trucks would be decontaminated prior to leaving contaminated areas.).

19. The County would develop and implement a Traffic Control Plan that is reviewed and approved by the County Resident Engineer prior to starting construction activities to alleviate potential traffic congestion. The Traffic Control Plan must include:

a. Limit of four trucks on Sand Point Road at any given time.

b. Traffic flaggers to guide traffic at the Santa Claus Lane and Spindrift Lane/Sand Point Road intersection to minimize congestion and avoid safety hazards to pedestrians and bicyclists.

c. Speed limit of 15 miles per hour (mph) on Sand Point Road during construction.

d. Specified areas for trucks to wait for their turn to enter the Project site along Sand Point Road that avoid driveways and access points to the Casa Blanca Beach Estates.

e. Detailed instructions for trucks to use the County access roads, staging areas, or driveways (if permitted) to allow access for emergency vehicles or avoid impediments to local evacuation in the event of an emergency.

Project Maintenance and Future Sea Level Rise Adaptation

The proposed Project also includes near-term and long-term maintenance of the revetment based on similar types of repairs. Maintenance activities would be anticipated to occur every 10 years or on an emergency as-needed basis in the event of severe storms and damage to the revetment. Typical long-term maintenance activities occurring every 10 years are estimated to require import of up to an additional 5,000 tons of armor rock.

The proposed Project also includes allowance for future SLR adaptation measures (e.g., additional rock import of up to 41,000 tons to raise the crest elevation to accommodate SLR of up to 2.8 feet).

Construction activities and staging during these maintenance and adaptation activities would be similar to the rock-related activities described or the initial repair, but requiring shorter construction durations. Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessway, and dune habitat occurring more than once per year.

2.4 Required Actions and Approvals

The County's Transportation Division is the Lead Agency for the proposed Project, consistent with CEQA Guidelines Section 15065(b). The County will use this Environmental Impact Report (EIR) to both evaluate the potential environmental impacts that could result from implementation of the proposed Project and develop changes to the proposed Project and/or adopt mitigation measures that would address those impacts. The Board will consider adoption of the proposed Project after certification of the Final EIR. Pursuant to CEQA Guidelines Section 15093, the decision-makers must

> *"...balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposal project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'"*

If the County approves the proposed Project with significant and unavoidable impacts, a Statement of Overriding Considerations (SOC) must be written, which shall state the specific reasons to support its action based on the Final EIR and/or other information in the record.

In addition to the required CEQA actions (e.g., certification of the Final EIR by the Board, adoption of findings and SOC), implementation of the proposed Project would require the following regulatory and/or legislative actions:

1. Board adoption of environmental findings, certification of the Final EIR, and, if needed, adoption of a SOC for any unavoidable, significant environmental impact that would result from the proposed Project.
2. County issuance of a CDP to address the proposed improvements and seeking after-the-fact authorization from the CCC for past repair and maintenance activities.
3. Issuance of Clean Water Act (CWA) permits by the U.S. Army Corps of Engineering (USACE) and the Central Coast Regional Water Quality Control Board (RWQCB).

4. Issuance or renewal of a General Lease – Public Agency Use by the California State Lands Commission to the County for long-term repair, operation, and maintenance of the rock revetment.

Chapter 3
Environmental Impact Analysis

3.0 Introduction and Approach to Analysis

This chapter of the Environmental Impact Report (EIR) addresses the potential environmental impacts of the proposed Sandyland Shoreline Protection Project (Project), which would repair the existing Sandyland Shoreline Protection Device along its 3,700-foot length. The proposed Project would repair the existing rock revetment after years of storm events and erosion and restore the revetment to current coastal engineering standards. This chapter discusses the environmental impact analysis approach, methodology, and cumulative scenario for analysis of the proposed Project.

3.0.1 Impact Assessment Guidelines

The California Environmental Quality Act (CEQA) requires an EIR analysis to "…identify and focus on the significant environmental effects of a proposed project" (Public Resources Code [PRC] Section 21000[a] and CEQA Guidelines Section 15126.2[a]). The emphasis of the EIR should be placed on the potential "physical" adverse effects of a proposed project. CEQA Guidelines Section 15360 define "environment" as the physical conditions that exist within the area that would be affected by a proposed project including, but not limited to, land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The CEQA Guidelines further define the "area involved" as the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions.

CEQA Guidelines Section 15382 clarifies the definition of "significant effect on the environment" as a substantial, or potential substantial, adverse change in any of the *physical* conditions within the area affected by the project. An economic or social change by itself shall not be considered a significant effect on the environment. However, that economic or social change that may have a *physical* impact (e.g., urban decay) should be considered in an EIR (*Bakersfield Citizens for Local Control v. City of Bakersfield [2004] 124 Cal.App.4th 1184*). The proposed Project does not propose any policies or programs that could result in big box or large regional-serving commercial uses leading to urban decay. Therefore, economic effects are not analyzed any further in this EIR pursuant to CEQA.

For each environmental issue area, thresholds for determining impact significance are identified based on the CEQA Guidelines and County-adopted thresholds, along with descriptions of the methodologies used for conducting the impact analysis. For some resource areas such as air quality, greenhouse gas (GHG) emissions, and transportation, the analyses of impacts are more quantitative in nature and involve the comparison of effects against adopted numerical thresholds. For other topics, such as aesthetics and visual resources as well as land use and planning, the analyses of impacts are inherently more qualitative, involving on the consideration of a variety of factors such as adopted County policies. Where the analysis of impacts warrants a more qualitative assessment, detailed discussion of the specific approach to methodology for assessing impacts is presented in each resource section.

3.0.2 Impact Assessment Methodology

The CEQA Guidelines identify key principles that allow for complete understanding of the environmental context, impacts analysis methods, and conclusions presented in this EIR. These principles are intended to inform the reader and facilitate objective and sound interpretation of the analyses and conclusions presented in the EIR by decision makers. Pursuant to CEQA Guidelines Section 15021, it is the duty of public agencies to avoid or minimize environmental damage where feasible but recognizes that a public agency also has an obligation to balance a variety of public objectives including economic, environmental, and social factors. In determining the significance of potential environmental effects, CEQA Guidelines Section 15064 requires findings of significance of each adverse effect and indicates that findings shall be based on scientific and factual data and in consideration of substantial evidence in the whole record before a lead agency. CEQA Guidelines Section 15144 notes that drafting an EIR necessarily involves some degree of forecasting, and while foreseeing the unforeseeable is not possible, an agency must use its best efforts to discover and disclose all that it reasonably using a general "rule of reason." CEQA Guidelines Section 15145 notes that if, after thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact. This section deals with a difficulty in forecasting where a thorough investigation is unable to resolve an issue and the answer remains purely speculative.

3.0.3 Environmental Resource Areas Analyzed in the EIR

The scope of this EIR is based on the Project Description outlined in Chapter 2, *Project Description*, as well as the proposed scope of analysis contained within the Notice of Preparation (NOP) and the Environmental Scoping Document (see Appendix A), focusing on review of environmental resources that could result in potentially significant impacts. This chapter evaluates the potential for environmental impacts on the following resource areas:

- Section 3.1, *Aesthetics and Visual Resources*
- Section 3.2, *Air Quality*
- Section 3.3, *Biological Resources*
- Section 3.4, *Cultural and Tribal Cultural Resources*
- Section 3.5, *Greenhouse Gases and Climate Change*
- Section 3.6, *Hazards and Hazardous Materials*
- Section 3.7, *Hydrology, Water Quality, and Coastal Processes*
- Section 3.8, *Land Use and Planning*
- Section 3.9, *Noise*
- Section 3.10*, Recreation*
- Section 3.11, *Transportation*

Sections 3.1 through 3.11 provide a detailed discussion of the environmental setting, impacts associated with the proposed Project, and mitigation measures designed to reduce potentially significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measures and cumulative impacts also are discussed. Additionally, Chapter 5, *Other CEQA Considerations,* identifies other environmental resource areas and provides a brief discussion of why the resource areas were not primarily analyzed within this EIR, due to their reduced potential for significant impacts from the proposed Project. Chapter 5, *Other CEQA Considerations,* also addresses growth inducing effects of the proposed Project.

3.0.4 Organization of Environmental Impact Analysis

Each section (Sections 3.1 through 3.11) addresses an environmental element and sets forth the following information for each component of the proposed Project:

- Introduction. Introduces the issue area and provides a general approach to the assessment.
- Existing Setting. Describes the baseline conditions characterizing the existing revetment and surrounding site as they relate to the environmental resource area in question. According to the CEQA Guidelines, the existing setting normally constitutes the physical baseline conditions by which the lead agency determines whether an impact is significant. The existing environmental setting includes all developed and undeveloped agricultural zone districts that may be affected by the proposed Project.
- Regulatory Setting. Summarizes the regulations, plans, and standards that apply to the proposed Project and relate to the specific issue area in question.
- Environmental Impact Analysis. Discusses the significance criteria, the environmental impact analysis, and mitigation measures that may be necessary to reduce environmental impacts and the residual impacts following the implementation of recommended mitigation measures.
    - Thresholds of Significance. Identifies the significance criteria or, where applicable, the thresholds of significance that will be used to evaluate impacts. The criterion or threshold for a given environmental effect is the level at which the County finds the effect to be significant. The significance criteria can be a quantitative or qualitative standard, or set of criteria, pursuant to which the significance of a given environmental effect may be determined (CEQA Guidelines Section 15064.7).
    - Impact Assessment Methodology. Outlines the general approach taken in evaluating the individual environmental resource area, if applicable. The methodology is laid out to provide a context for the analysis of impacts.
    - Impacts of the Proposed Project. The environmental analysis considers the potential impacts resulting from short-term construction and long-term operational activities associated with the proposed Project. While the criteria for determining significant impacts are unique to each issue area, the analysis applies a uniform classification of the impacts based on the following definitions:
        - *Significant and Unavoidable Impacts*: Potentially significant impacts that cannot be feasibly mitigated or avoided. No measures could be taken to avoid or reduce these adverse effects to insignificant levels. Even after application of feasible mitigation measures, the residual impact would be significant. If the proposed Project is approved with significant and unavoidable impacts, decision-makers must adopt a Statement of Overriding Considerations (SOC) pursuant to CEQA Guidelines Section 15093 explaining why benefits of the Project outweigh the potential damage caused by these significant unavoidable impacts.
        - *Significant but Mitigable Impacts*: Potentially significant adverse impacts that can be feasibly mitigated or avoided. If the proposed Project is approved with significant but mitigable impacts, decision-makers are required to make findings pursuant to CEQA Guidelines Section 15091, stating that impacts have been mitigated to the maximum extent feasible and the residual impact would not be significant.

- *Insignificant Impacts*: These adverse but insignificant impacts do not require mitigation, and they do not require findings to be made. Mitigation measures may still be recommended to improve consistency with policies in the County Comprehensive Plan.
- *No Impacts*: No adverse changes in the environment would result from implementation of the proposed Project.
- *Beneficial Impacts*: Implementation of the proposed Project would result in impacts that would be beneficial to the environment.
- "Cumulative Impacts" (CEQA Guidelines Section 15130) describes impacts that could occur from the combined effect of other past, present, and reasonably foreseeable future projects. For each significant adverse impact identified, mitigation measures are presented where feasible to reduce the impacts to acceptable levels (see Section 3.0.6, *Cumulative Impacts Analysis*).
- "Residual Impacts" identify impact categories after mitigation is applied (see Section 3.0.5, *Mitigation and Monitoring*); in those instances where mitigation measures cannot reduce adverse impacts to less-than-significant levels, impacts are categorized as significant and unavoidable impacts.

Based on the criteria above, the environmental impact analysis assesses each issue area to determine the significance level.

3.0.5 Mitigation Measures and Monitoring

Pursuant to CEQA Guidelines Section 15126.4, where potentially significant environmental impacts have been identified in the EIR, feasible mitigation measures that could avoid or minimize the severity of those impacts are also identified. The mitigation measures are identified as part of the analysis of each impact topic in Sections 3.1 through 3.11 of this EIR.

Feasible means "…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (CEQA Guidelines Section 15364). A Lead Agency must impose mitigation measures unless findings can be made that the mitigation measures are found to be infeasible or within the jurisdiction of another agency (*City of Marina v. Board of Trustees of the California State University [2006] 39 Cal.4th 341*). Mitigation measures must be fully enforceable and may involve various means of implementation, such as:

- Measures incorporated directly into the adopted Sandyland Seawall Project as new or revised permitting requirements or development standards.
- Measures incorporated as standard conditions of approval for individual projects.
- Measures implemented in multi-year County programs or development impact fee programs.

CEQA requires that implementation of adopted mitigation measures or any revisions made to the proposed Project by the Lead Agency to mitigate or avoid significant environmental effects be monitored for compliance. Accordingly, CEQA Guidelines Section 15097 require that a public agency adopt a Mitigation Monitoring or Reporting Program (MMRP) for those adopted mitigation measures and project revisions. That is, the monitoring plan may consist of policies included in plan-level documents (CEQA Guidelines Section 15097[b]). The MMRP will be provided as Chapter 8, *Mitigation Monitoring and Reporting Program* following public review and preparation of the Final EIR.

3.0.6 Cumulative Impacts Analyses

CEQA Guidelines Section 15130 require that cumulative impacts be analyzed in an EIR when the resulting impacts are cumulatively considerable and, therefore, potentially significant. Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. The discussion of cumulative impacts must reflect the severity of the impacts as well as the likelihood of their occurrence. However, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Further, the discussion should remain practical and reasonable in considering other projects and related cumulatively considerable impacts. According to 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 several 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."*

Further, according to CEQA Guidelines Section 15130(a)(1)

> *"...a 'cumulative impact' consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR."*

In addition, as stated in the CEQA Guidelines Section 15064(i)(5), "[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable."

Therefore, the cumulative impact discussion focuses on whether the impacts of the proposed Project are cumulatively considerable within the context of combined impacts caused by other past, present, or future projects. The main determinant for purposes of inclusion and evaluation in the cumulative impact analysis is whether an individual project, program, policy initiative, or conceptual future project would contribute to an impact to an environmental resource or issue area to which the proposed Project also would have an impact. Generally, projects that are located within geographical proximity to each other (e.g., two or more projects located within the same watershed, or utilizing the same roadways) have the potential to contribute to cumulative impacts to an environmental resource or issue area. However, given the geographical distribution and extent of the environmental resource or issue area, projects do not necessarily need to be located within close proximity to one another to be included in the cumulative impacts analysis.

Consistent with the CEQA Guidelines methodology for cumulative impact analysis, the County's 2020 revised *Guidelines for the Implementation of the California Environmental Quality Act of 1970* provide that various methods can be utilized for assessing a project's contribution to cumulative impacts, dependent upon the nature of the impact and its areal extent. The County of Santa Barbara Planning & Development Department (P&D) generally employs or recommends that the cumulative impact evaluation be based on a specific cumulative project list (i.e., List Method). The list should be extensive enough to contain all projects that could have a substantial effect on the resource to be significantly

impacted by the project. The County guidelines state that the cumulative project list should include the following:

1. Projects that are partially occupied or under construction;
2. Projects approved by decision-makers;
3. Projects deemed "complete" for processing and are currently undergoing review by lead agencies;
4. Projects that have submitted a pre-application assessment with a lead department and contain a high degree of specificity and probable time frame; and
5. Public projects that are partially occupied, under construction, approved, under review, or proposed, including projects which are included in a capital improvement program, or are reasonably expected to be funded and scheduled.

To develop the cumulative projects list, the County reviewed current work plans to consider program and policy initiatives, and discretionary and ministerial projects throughout the county to identify projects that may have a cumulative effect on the environment. Consistent with the County's 2020 revised *Guidelines for the Implementation of the California Environmental Quality Act of 1970* and recommendations for assessment of cumulative impacts, programs and policy initiatives excluded from the cumulative impact analysis include:

- County policy initiatives and ordinance amendments that are unfunded and not included in a Board of Supervisors adopted work program.
- County policy initiatives and ordinance amendments which do not cause related impacts to resources evaluated in this EIR.
- County policy initiatives and ordinance amendments that are procedural in nature.
- A County policy initiative or ordinance amendment project description that is unspecified, uncertain, loosely defined, or speculative. This criterion would apply to programs that have not undergone environmental review or been formally initiated by the Board of Supervisors.
- Projects that are located outside of the area of potential effect or projects that would otherwise not affect the environmental resource areas analyzed in this EIR.

The list of plans, policy initiatives, programs, and discretionary projects that are considered in the cumulative analysis of this EIR are listed in Table 3.0-2.

CEQA Guidelines Section 15130(b)(2) further states that an EIR should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used. The geographic scope for the analysis of cumulative impacts in this EIR varies by each environmental impact topic (e.g., jurisdiction, air basin, watershed, service area). For most of the impact topics analyzed in this EIR, the geographic scope was determined to be limited to the vicinity of the Project site given the Project primarily entails physical modification of an existing shoreline protection structure with little to no changes in long-term operational characteristics or effect. For instance, once construction is completed, the revetment would not generate any operational energy demands and the Project is not a vehicle trip-generating use. The cumulative analyses for air quality and GHG emissions include the full extent of the county and beyond. The cumulative analyses for each environmental issue, including a discussion regarding the identification of relevant cumulative projects are provided in their applicable sections in Chapter 3, *Environmental Impact Analysis*.

Table 3.0-1. Geographic Context for Cumulative Analysis

Environmental Resource Area	Geographic Context for Cumulative Analysis
Aesthetics and Visual Resources	Summerland and Carpinteria Valley Planning Areas
Air Quality	South Central Coast Air Basin
Biological Resources	Project Vicinity
Cultural Resources and Tribal Cultural Resources	Project Vicinity
Greenhouse Gas Emissions and Climate Change	Global
Hazards and Hazardous Materials	Project Vicinity
Hydrology, Water Quality, and Coastal Processes	Local Foothill Watersheds and Santa Barbara Littoral Cell
Land Use and Planning	Santa Barbara County and SBCAG Planning Area
Noise	Project Vicinity
Recreation	Summerland and Carpinteria Valley Planning Areas
Transportation	Project Vicinity

Table 3.0-2. Cumulative Projects List

Project Name		Description	Location	CEQA Process	Status	Discussion
1	Sanddew Residence	The proposed project is a request for a Coastal Development Permit to allow construction of a 3,256 net square foot (sf) residence, a 771 gross sf carport, a 338 net sf utility vault, 1,667 gross sf elevated deck area, an elevated pool, raised planter beds, a mechanical access area, and a trash enclosure.	501 Sand Point Road	MND	CEQA Complete	Addresses development of a new single-family residential unit on an existing undeveloped lot at the southern end of Project site.
2	Coleman Demolition Rebuild	The project is for a Coastal Development Permit with hearing to allow demolition of the existing 3,548 gross square foot single family dwelling and 726 gross square foot attached garage. New construction would include a 4,412 gross square foot residence with a 1,382 gross square foot understory garage and 1,579 gross square feet of understory storage, mechanical vault, lower entry stairwell, outdoor furniture and surfboard storage, and a covered outdoor shower. Construction of the new dwelling would also include 1,384 square feet of uncovered decking and stairs, a 52 net square foot outdoor spa, new hardscaping and landscaping.	755 Sand Point Road	MND	CEQA Complete	Addresses redevelopment of a single-family residential unit immediately adjacent to the Project site.
3	Santa Claus Lane Streetscape Improvements Project	Proposed project goals are increased coastal access parking, providing an authorized pedestrian at-grade crossing of Union Pacific Railroad (UPRR) facilities onto Santa Claus Lane Beach and coastal resources, traffic calming measures, landscaping, stormwater control measures, continuous sidewalk along beach-side of Santa Claus Lane, providing a permanent restroom facility, and increased multi-modal transportation through the coastal corridor between the	Santa Claus Lane between Padaro Land and Sand Point Road	MND	Under Construction	Addresses the construction of pedestrian, bicycle, and parking improvements along Santa Claus Lane to improve pedestrian and bicycle mobility and coastal access to beaches in the vicinity of the Project site.

Table 3.0-2. Cumulative Projects List

Project Name		Description	Location	CEQA Process	Status	Discussion
		City of Carpinteria and the Community of Summerland.				
4	Wallace Avenue Coastal Access Improvements Project	The project provides increased parking, traffic calming measures, landscaping, stormwater control measures, sidewalk improvements, and a pedestrian at-grade crossing of UPRR facilities into Lookout Park, in the Community of Summerland.	Wallace Avenue between Evans Avenue and Finney Street in Summerland	NOE	Under Construction	Addresses the construction of pedestrian and parking improvements to improve mobility and coastal access.
5	Caltrans Highway 101: Padaro Widening Project	The project includes new bridges over Toro and Arroyo Parida Creeks. Freeway signs for Arroyo Parida Creek were updated to Arroyo Paredon Creek to comply with community wishes for greater consistency of naming along the creek watershed. At the South Padaro Lane Undercrossing, the bridge and on- and off-ramps have been replaced. At the North Padaro Lane Interchange, new on- and off-ramp improvements are built.	Highway 101 between City of Carpinteria and Summerland	EIR	Under Construction	Addresses mobility and interchange improvements along Highway 101 in the Project vicinity.
6	Carpinteria Dune and Shoreline Management Plan	The project would involve the construction and maintenance of a “living shoreline” of vegetated sand dunes, perform major beach nourishment (i.e., sand importation), and install a sand retention structure to slow beach erosion and protect the Beach Neighborhood from wave attack and coastal flooding projected to occur with sea level rise. The project would also include targeted dune improvements in Carpinteria State Beach to protect those facilities. The project would be constructed as early as 2025 and maintained in place through 2050 or 2070 through periodic beach nourishment and dune repair until projected sea level rise may render continued maintenance infeasible.	Carpinteria City Beach	EIR	In progress	Addresses construction and maintenance of nature-based shoreline resiliency features downcoast of the Project site, along with long-term beach renourishment and sand retention.

Table 3.0-2. Cumulative Projects List

Project Name		Description	Location	CEQA Process	Status	Discussion
7	Rincon Beach Multi-Use Trail	The project includes a new, shared-use trail extending from the eastern terminus of Carpinteria Avenue to Rincon Beach County Park, 12–feet in width and approximately 4,000 feet in length. The design of the proposed trail analyzed in the 2015 MND would have necessitated approximately 1,000 feet of retaining wall, with a maximum height of 14 feet. Several look-out points, a stormwater cistern, and pathway lighting at sharp horizontal grade changes and within the parking areas for the trail were also proposed.	Rincon Bluffs between Rincon Beach County Park and City of Carpinteria	EIR	CEQA Completed	Addresses development of a new multi-use trail and improvement to California Coastal Trail connections.

Section 3.1
Aesthetics and Visual Resources

3.1.1 Introduction

This section describes the environmental and regulatory setting for aesthetic and visual resources, evaluates the effects on visual resources that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and identifies mitigation measures to reduce identified impacts where possible. The existing setting includes a description of scenic vistas, visual quality, and visual character of Santa Barbara County. The information and analysis in this section is based on information provided in previous long-range planning documents, Environmental Impact Reports (EIRs) and Negative Declarations (NDs) prepared by the County of Santa Barbara (County), the County's Coastal Land Use Plan (CLUP), and the Santa Barbara County Comprehensive Plan. The impact determinations are based on consistency with the California Environmental Quality Act (CEQA) thresholds, the County's Visual Aesthetic Impact Guidelines, and the County's existing policies and regulations related to aesthetics and visual resources.

3.1.2 Environmental Setting

3.1.2.1 Regional and Local Setting

As described in Section 2.2.1, *Project Location and Ownership*, the Project site is located on the coastline of southeast unincorporated Santa Barbara County, approximately 1.1 miles northwest of the City of Carpinteria. The Project site and the surrounding vicinity is characterized by unincorporated lands developed with large, single-family residential homes and accessory structures immediately along the coastline, and backed by the Carpinteria Salt Marsh. The Project site is situated in the rural unincorporated area of the Carpinteria Valley, which is characterized largely by agricultural lands and suburban residential neighborhoods. The Project site is also situated within the County's Coastal Zone, which is further characterized by dunes, sandy beaches, sea cliffs, and views of the surrounding mountains, the northernmost Channel Islands (i.e., Anacapa, Santa Cruz, and Santa Rosa) on clear days, and scenic views of the Pacific Ocean.

3.1.2.2 Santa Barbara County Scenic Values Mapping

Scenic values mapping within the Open Space Element of the County's Comprehensive Plan identifies the visual quality of lands as seen from major roadways and edges of developed areas. Scenic areas are defined by features from the Conservation Element that can generally be regarded as having high levels of scenic quality and visual interest. Such areas include rivers, streams, watersheds, reservoirs, and select vegetative communities. Steep slopes and high elevation are also included for their potential to provide scenic vistas. The Open Space Element describes three general levels of scenic value:

- High: Warrant strong consideration for open space designation and preservation.

- Moderate: Advisability of prescribing special design standards, and subjecting plans to design review by the Planning Commission before development is permitted.
- Low: No standards put forth for protection in the Open Space Element.

The Project site is classified as moderate scenic value under the County's Open Space Element (County of Santa Barbara 2009a).

3.1.2.3 Existing Visual Character of the Project Area

The Project site is located along Sand Point Road, a private roadway which extends along a sand spit on seaward side of the Carpinteria Salt Marsh and provides access to 25 single-family residential properties. Surrounding land uses include single-family residential to the northwest, open space (Carpinteria Salt Marsh) to the north and east, and the Pacific Ocean to the south and southwest.



As discussed in Section 1.3, Description of the Sandyland Shoreline Protection Device, the 3,700-foot-long rock revetment is located on the seaward side of 25 existing single-family residential properties.

Distant views of the Sand Point Road residences are available from U.S. Highway 101 (Hwy 101) and Union Pacific Railroad (UPRR) (both located approximately 0.25 mile to the north) and from public walking paths located on the southeastern edge of Carpinteria Salt Marsh, approximately one mile to the north. Existing homes on Sand Point Road are distantly visible from Hwy 101 and the UPRR, but ocean views and views of the Project site are generally not visible over the Sand Point Road community due to the distance, vegetation, residential development, and topographic changes from Hwy 101 to Sand Point Road. Further, the standard speed of travel along Hwy 101 and the UPRR also significantly limits views of the Sandyland community to travelers from these vantage points (County of Santa Barbara 2022).



Vehicles traveling northbound and southbound along Hwy 101 have temporary views of the Carpinteria Salt Marsh and distant views of the Sandyland community. However, neither the ocean nor the Project site are visible from this public vantage point.

The Project site includes a 3,700-foot-long rock revetment stretching across an unnamed beach settled between Padaro Beach (Santa Claus Beach) and the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. As described in Section 2.2.2, *Project Background and Existing Conditions*, the crest elevation of the existing revetment ranges between 14 and 19 feet NAVD88, compared to its original design height of 16.4 feet NAVD88. The revetment remains approximately 65 feet wide, covering a total of approximately 5.52 acres, The revetment is generally only visible from the Pacific Ocean and from private residences along Sand Point Road. Those engaging in water activities (e.g.,

kayaking, paddleboarding, surfing, swimming, etc.) may be able to see the revetment. There are two construction easements and one potential public access route from Sand Point Road across the revetment to the beach. However, given that Sand Point Road is a gated private road, no public access is currently provided to the revetment. As described further in Section 3.10, *Recreation*, the unnamed beach is generally inaccessible from the north due to existing rock revetments constructed to protect private residences of the Casa Blanca Beach Estate Owners Association located north of the beach, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable.



Views from the Project site include mountains in the far-off distance, beaches, the ocean, and open sky.

The foreground visual character of the Project site is dominated by south-facing, multi-story, single-family residential buildings. The single-family residences are generally not uniform in design. The residences are largely two stories in height. Many of the homes have southward facing views of the beach and the existing revetment. On clear days, the Project site provides expansive scenic views of the Pacific Ocean and distant Anacapa and Santa Cruz islands. Additionally, scenic value is derived from the Carpinteria Salt Marsh to the north of the Project site and the Santa Monica Creek to the south of the Project site.

Background and mid-range views of surrounding developed areas from the Project site are largely blocked by the homes along Sand Point Road. Views of mountain ranges can be seen in the far-off distance from the Project site. Within the vicinity of the Project site, key scenic vistas include beaches, mountains, the Pacific Ocean, and open sky.

3.1.2.4 Existing Visual Resources

Scenic Vistas and Corridors

A public scenic vista or corridor is an area of land that has natural beauty and is visible from a public area, such as a roadway, trail, or park. The ocean, mountains, and open spaces provide high-quality visual resources as viewed from public vistas and scenic corridors. Often, these visual resources stem from other valuable watershed resources, such as hillsides and ridgelines, riparian corridors, Environmentally Sensitive Habitat (ESH), and coastal resources. Collectively, these visible features help define the character of the community, a natural backdrop to the built environment within the County's Urban Area. Undeveloped rural lands, mountains, and coastal resources provide a significant visual backdrop for existing communities, particularly from public gathering spaces in the Urban Area.

The County's Scenic Highway Element in the Comprehensive Plan identifies and protects scenic highways and corridors in the county. According to the Scenic Highway Element, a scenic vista or corridor is an area of land that is visible from, adjacent to, and outside the highway right-of-way and is comprised primarily of scenic and natural features (County of Santa Barbara 2009b). Further, the

County's Open Space Element designates scenic travel routes based on destination routes and traffic capacity, as well as scenic value; major roadways were evaluated and identified for their scenic values and are included in the Open Space Element. The County deems travel corridors of high scenic value to be worthy of prime consideration for scenic highway designation, while moderate travel corridors warrant careful development if development is permitted. An analysis of scenic values in travel corridors was included in the County's Open Space Element and Scenic Highways Element.

The Environmental Resource Management Element (ERME) combines the results of these two analyses and identifies numerous routes or specific segments of routes as having the highest scenic values within the county. The northwestern portion of the Project site is located in an ERME-designated scenic corridor along Hwy 101 between Montecito and Rincon Point. However, as previously described, views of the Project site are not visible over the Sandyland community due to the distance, vegetation, residential development, and topographic changes from Hwy 101 to Sand Point Road.



The northwestern portion of the project site is located within an ERME designated scenic view corridor (U.S. 101: Montecito-Rincon Point). However, the Project site is not visible from Hwy 101 behind the existing residential development.

Scenic Highways

Highway travel gives residents and visitors exposure to the county's visual attributes. At present there are three State Highways in Santa Barbara County which have been officially designated as State Scenic Highways as part of the California Department of Transportation (Caltrans) State Scenic Highway Program (Caltrans 2019). They are:

- State Route (SR) 1 (between the intersection of Hwy 101 and Las Cruces and the City of Lompoc);
- SR 154 (entire length); and
- Hwy 101 (from the City of Goleta's western boundary to SR 1 at Las Cruces).

The nearest State Scenic Highway to the Project site is SR 154, which terminates approximately 12.5 miles northwest of the Project site.

Portions of other highways traversing the county are identified in the State's master plan of highways eligible for a Scenic Highway designation. These eligible highways may become official State Scenic Highways when the County implements a plan of preservation. The nearest eligible highway to the Project site is Hwy 101, which runs just north of the Project site.

Light and Glare

New sources of lighting can be a nuisance to sensitive viewers through light spill or can create an ambient light glow that emanates upward and diminishes views of the clear night sky. If uncontrolled, light spill and ambient light glow can disturb wildlife in natural habitat areas. Glare can cause an unwanted and potentially objectionable sensations as observed by a viewer as they look toward a

surface that creates glare. Glare can be caused by a direct light source (direct glare) or, more commonly, by the reflection of the sun, moon, or artificial light source from a reflective surface (reflective glare).

The Project site is located adjacent to the Pacific Ocean, a large source of water surface glare. However, glare from water is not usually perceived as a negative aesthetic quality and can often be associated with high-quality and memorable visual experiences. Light and glare can be affected by the amount of vegetation in an area because vegetation acts to screen and filter light and soften the intensity of glare. The Carpinteria Salt Marsh to the north is heavily vegetated, minimizing glare from that direction. The primary source of natural glare is anticipated to be from the Pacific Ocean to the south. Other existing sources of light include private residence lighting and car headlights. The proximity of the Project site to the City of Carpinteria creates an opportunity for additional light and glare. Urban areas generally include numerous sources of nighttime lighting, including streetlights, exterior security lighting, interior building illumination, and vehicle lights. However, the Project site is generally free of substantial sources of light and glare due to its private coastal setting.

3.1.3 Regulatory Setting

State and local regulations have been enacted to protect aesthetic and visual resources in Santa Barbara County. The following section summarizes applicable policies and regulations that may relate directly to future development under the Project and its associated impacts. There are no Federal regulations that pertain to this aesthetics and visual resources analysis.

3.1.3.1 State

California Scenic Highway Program

The California Scenic Highway Program was designed to preserve and protect scenic highway corridors. Jurisdictions nominating a Scenic Highway for official designation have in place or adopt ordinances to preserve the scenic quality of the corridor, including policies to preserve scenic resources through land use regulations, site planning, control of outdoor advertising (including a ban on billboards), grading, and measures to direct structural design and appearance (California Streets and Highways Code §260 et seq.). Suitability for designation as a State Scenic Highway is based on three criteria described in Caltrans' Guidelines for Official Designation of Scenic Highways (2008):

- Vividness. The extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements.
- Intactness. The integrity of visual order and the extent to which the natural landscape is free from visual intrusions (e.g., buildings, structures, equipment, grading).
- Unity. The extent to which development is sensitive to and visually harmonious with the natural landscape.

As previously discussed, there are no officially designated "State Scenic Highways" within the vicinity of the Project site. However, the portion of Hwy 101 near the Project site is considered eligible for State Scenic Highway designation.

California Coastal Act

The California Coastal Act (Coastal Act) prioritizes the protection of important scenic resources and views from public areas, such as highways, roads, beaches, and trails. There are several provisions relevant to the proposed Project:

Section 30251: "*The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department 48 of Parks and Recreation and by local government shall be subordinate to the character of its setting.*"

Section 30253: New development shall: *"(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses. The California Coastal Commission has defined special communities as "areas that add to the visual attractiveness of the coast."*

3.1.3.2 Local

County of Santa Barbara Comprehensive Plan

The County Comprehensive Plan's Land Use, Open Space, Environmental Resource Management, and Scenic Highways Elements contain descriptions, policies, and goals that both recognize scenic qualities and provide guidance for their protection. These plans and policies promote the protection of important visual resources and ensure that new development is compatible with the community and the surrounding environment.

Land Use Element

The Land Use Element of the Comprehensive Plan contains policies to protect and enhance visual resources. The land uses proposed within the Land Use Element, and depicted on land use maps, are to be used to guide the public and the decision-makers as to what uses are appropriate if and when development occurs. New development must generally be consistent with the Land Use Element's visual resource policies. The Hillside and Watershed Protection Policies address development on slopes to minimize grading, disruption of natural vegetation, and erosion. Visual resource policies include measures to ensure structures are subordinate to the surrounding natural environment and/or compatibility with the community through structural design review and landscaping requirements, limitations on signs that disrupt public views, and requirements for undergrounding of new utilities.

Visual Resource Policy 2: In areas designated as rural on the land use plan maps, the height, scale, and design of structures shall be compatible with the character of the surrounding natural environment, except where technical requirements dictate otherwise. Structures shall be subordinate in appearance to natural landforms; shall be designed to follow the natural contours of the landscape; and shall be sited so as not to intrude into the skyline as seen from public viewing places.

Visual Resource Policy 3: In areas designated as urban on the land use plan maps and in designated rural neighborhoods, new structures shall be in conformance with the scale and character of the existing community. Clustered development, varied circulation patterns, and diverse housing types shall be encouraged.

Visual Resource Policy 4: Signs shall be of size, location and appearance so as not to detract from scenic areas or views from public roads and other viewing points.

Open Space Element

The Open Space Element identifies the county's scenic beauty as a principal factor in the attraction of visitors and residents, and evaluates the visual quality of natural resources, travel corridors, and parameters of urban and rural areas within the county. The Open Space Element employs a scenic values model to map visual quality, and uses factors of development intensity, siting, natural features, and vegetation as criteria for the protection of visual resources. Significant visual resources as noted in the Open Space Element include:

- Scenic highway corridors
- Parks and recreational areas
- Views of coastal bluffs, streams, lakes, estuaries, rivers, watersheds, mountains, and cultural resource sites
- Scenic areas

Environmental Resources Management Element

The ERME presents the County's policies for air quality, biology, geology, surface and groundwater resources, noise, and visual resources protection based upon the ERME factors maps. The ERME factor maps translate the summarized environmental factors information into a general expression of County policy on environmental resources management. Portions of the Project site are located in the ERME scenic view corridor of Hwy 101 (U.S. 101: Montecito-Rincon Point). However, the Project site is not visible from Hwy 101 landward of the existing residential development.

Scenic Highways Element

The Scenic Highways Element presents the County's policies and procedures for scenic highways and their designation. This element specifically presents the County's scenic highways goals, evaluation standards, preservation measures, and procedures for obtaining official "Scenic Highway" designation for State and County roads in the county. The Scenic Highways Element contains preservation measures for eligible scenic routes (County of Santa Barbara 2009a). Hwy 101, which runs just north of the Project site, is eligible for Scenic Highway designation.

County of Santa Barbara Local Coastal Program

The County of Santa Barbara Local Coastal Program (LCP) is required by the Coastal Act to govern projects in the Coastal Zone. The County's LCP includes the CLUP and Chapter 35, Article II of the County Code, also referred to as the Article II Coastal Zoning Ordinance (CZO), which implements the CLUP.

Coastal Land Use Plan

The purpose of the CLUP is to protect coastal resources and provide greater access and recreational opportunities for the public's enjoyment while allowing for orderly and well-planned urban development and the siting of coastal-dependent and coastal-related industries. The CLUP establishes land uses within the Coastal Zone. The other elements of the County's Comprehensive Plan are applicable within the Coastal Zone; however, where conflicts exist, the LCP takes precedence. The plan includes numerous policies applicable to development projects. Sections 3.4.3 and 3.4.4 of the CLUP provide policies that protect coastal visual resources. These policies are intended to help implement the Coastal Act at the county level.

> Visual Resources Policy 4-3: In areas designated as rural on the land use plan maps, the height, scale, and design of structures shall be compatible with the character of the surrounding natural environment, except where technical requirements dictate otherwise. Structures shall be subordinate in appearance to natural landforms; shall be designed to follow the natural contours of the landscape; and shall be sited so as not to intrude into the skyline as seen from public viewing places.
>
> Visual Resources Policy 4-4: In areas designated as urban on the land use plan maps and in designated rural neighborhoods, new structures shall be in conformance with the scale and character of the existing community.
>
> Visual Resources Policy 4-9: Structures shall be sited and designed to preserve unobstructed broad views of the ocean from Hwy 101 and shall be clustered to the maximum extent feasible.

Coastal Zoning Ordinance

The CZO is applicable to the unincorporated coastal zone; it implements the CLUP by classifying and regulating the uses of land, buildings, and structures in the coastal zone.

Sections 35-98 Design Control Overlay District, 35-102G Critical Viewshed Corridor Overlay District, 35-131 Agricultural Sales, 35-139 Exterior Lighting, and 35-144 Ridgeline and Hillside Development Guidelines state that the intent of the development standards is to ensure compatibility with surrounding land uses in order to protect visual resources.

3.1.4 Environmental Impact Analysis

This section discusses the potential aesthetics and visual resource impacts associated with the proposed Project. The loss, alteration, or obstruction of visually significant features, or the introduction of disparate features that conflict with the existing visual character and quality of the Project site, may be considered significant aesthetic and visual effects.

3.1.4.1 Thresholds of Significance

CEQA Guidelines

Appendix G of the CEQA Guidelines states that a project would be considered to have a significant impact related to aesthetic and visual resources if it would:

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

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic highway.

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

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

County of Santa Barbara Environmental Thresholds and Guidelines

The County Visual Aesthetics Impact Guidelines that are set forth in the County's *Environmental Thresholds and Guidelines Manual* provide guidance in determining the importance of visual resources. The subjective nature of aesthetic impacts is discussed, and questions are presented that guide visual impacts analyses, rather than provide a defined significance threshold. Affirmative answers to the following guiding questions would indicate potentially significant impacts to visual resources.

1a. Does the Project area have significant visual resources by virtue of surface waters, vegetation, elevation, slope, or other natural or man-made features which are publicly visible?

1b. If so, does the proposed Project have the potential to degrade or significantly interfere with the public's enjoyment of the site's existing visual resources?

2a. Does the Project have the potential to impact visual resources of the Coastal Zone or other visually important area (i.e., mountainous area, public parks, urban fringe, or scenic travel corridor)?

2b. If so, does the Project have the potential to conflict with the policies set forth in the CLUP, the Comprehensive Plan, or any applicable community plan to protect the identified views?

3. Does the Project have the potential to create a significant adverse aesthetic impact through obstruction of public views, incompatibility with surrounding uses, structures, or intensity of development, removal of significant amounts of vegetation, loss of important open space, substantial alteration of natural character, lack of adequate landscaping, or extensive grading visible from public areas?

Methodology

Scenic Resources

This section analyzes the potential effects of the proposed Project on aesthetics and visual resources of the Project site and vicinity. The analysis includes fieldwork and visual reconnaissance of the Project site, notes, analysis of the Project site's relationship to the surrounding community, and the County's existing policy framework for protecting visual resources. Field notes and photographs of existing visual resources of the Project site and vicinity are used to support this analysis.

This analysis focuses on changes to public views as compared to existing conditions. The public view assessment depends upon the sensitivity of the resource, as supported by public testimony, viewer

susceptibility, viewing conditions (e.g., angle of view, distance, and primary viewing directions), degree of change and visual contrasts to surroundings. These could include changes to existing features that no longer appears characteristic of the Project site or development that substantially or entirely blocks public scenic views or remove key aesthetic features. Effects on private views are typically not considered under CEQA (Public Resources Code [PRC] Section 21082.2). CEQA case law has established that only public views, not private views, need be analyzed under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah (1991)* 2 Cal. App. 4th 720, the court determined that "*we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal.App.3d 188, '[all] government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general*.'"

To help support the evaluation of potential changes to visual resources, Key Viewing Locations (KVLs) were identified. KVLs were selected to provide representative locations from which the proposed Project would be visible by the public. For each KVL, photosimulations of the proposed Project were prepared to provide a "before and after" representation for analysis. The analysis focuses on changes from existing conditions as they would be experienced by public beachgoers or from offshore (e.g., from a kayak, paddleboard, or boat), given that public views of the Project site are generally not available elsewhere in the surrounding vicinity. The KVL photosimulations are used to determine whether the proposed Project may substantially degrade or conflict with the existing visual character of the Project site and the surrounding vicinity.

Visual Character or Quality of Public Views

As previously described, the Project site is located within the designated rural area of the county. As such, this analysis focuses on the potential for the proposed Project to degrade the existing visual character or quality of public views of the site and its surroundings, rather than the consistency of the proposed Project with applicable zoning and other regulations governing scenic quality. The analysis focuses on the changes caused by implementation of the proposed Project, which includes repairs to an existing rock revetment and construction of new stairways. The photosimulations have been used to determine whether the proposed Project may substantially degrade the existing visual character or quality of public views.

Light and Glare

The analysis of light/glare changes reviews the new light/glare sources that would be introduced under the proposed Project and determines whether light/glare would substantially affect views.



KVL 1: Before (above) and after (below) of the revetment looking southeast.





KVL 2: Before (above) and after (below) of revetment looking northwest.



3.1.4.2 Project Impacts

Table 3.1-1 provides a summary of the proposed Project's impacts related to aesthetics and visual resources. A detailed discussion of each impact follows.

Table 3.1-1. Summary of Aesthetics and Visual Resources Impacts

Aesthetics and Visual Resources Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact AV-1. The proposed Project could potentially result in adverse effects on scenic vistas, the visual character, and/or quality of public views in the area.	Insignificant	No mitigation required	Insignificant
Impact AV-2. The proposed Project could result in new light or glare sources during construction.	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact AV-1. The proposed Project could potentially result in adverse effects on scenic vistas, the visual character, and/or quality of public views in the area.

Effects on Scenic Resources

As previously described, the Project site and the surrounding vicinity provide foreground views of the ocean and distant views of mountain ranges, particularly from public vantage points atop the revetment, along the shoreline fronting the revetment, and from offshore. Construction and maintenance activities would include the temporary use of heavy construction equipment as well as the removal of non-native vegetation and minor topographical changes along the revetment, which could obstruct or otherwise detract from views of the scenic resources occur and degrade the overall beach experience, posing an adverse impact to visual resources.

Construction activities would require temporary closures of various segments of the beach during the 6- to 7-month construction period. In addition to these closures, which would temporarily remove public views along the beach that would otherwise be accessible during low and very low tides, a mix of heavy construction equipment would be visible along the beach. This equipment, including include two track-mounted long-reach excavators, two front-end loaders, and numerous haul trucks for the import of armor rock and sand and concrete trucks for construction of the stairs, would temporarily detract from existing scenic coastal views from the Project site and within the surrounding vicinity. However, as discussed in Section 3.8, *Land Use and Planning*, the proposed Project would comply with necessary local and regional regulations regarding aesthetics. Additionally, the temporary nature of the construction activity, the shielding of construction equipment and material staging areas with fencing, would ensure that impacts are *less than significant with mitigation*.

Over the long term the proposed Project would involve the repair and restoration of the 1983 design condition along the entirety of the revetment's 3,700-foot length. As described further in Appendix B, the crest (top) elevation of the existing revetment ranges between 14 and 19 feet NAVD88, compared to its original design height of 16.4 feet NAVD88. The crest elevation and width of the revetment would be restored to 16.4 feet (relative to NAVD88 vertical datum) and 10 feet, respectively, along the length of the revetment. The seaward slope of the revetment would be restored to a slope of 2:1.

The ocean would remain visible to the south and distant views of the mountains would still remain over the top of the revetment.

Depending on the amount of future sea level rise (SLR), the proposed Project is designed to allow for the import and placement of up to 41,000 tons of additional rock to raise the crest elevation to up to 22 feet (relative to NAVD88 vertical datum) to accommodate SLR of up to 2.8 feet.[1] Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessways, and dune habitat occurring more than once per year. Increasing the height of the revetment may disrupt distant views of the mountains over the top of the revetment from the beach. However, under the extreme 2.8 feet SLR scenario, lateral public access along the beach would no longer be possible, even during very low tides. Therefore, there would be no meaningful impacts on views along the shoreline and potential impacts offshore views (e.g., from a kayak, paddleboard, or boat) would be negligible.

The proposed Project would also include improvements to coastal access. As described in Section 2.3.2, *Project Description*, the proposed Project would include improvements to coastal access to/from the beach and across the repaired revetment. The proposed Project would remove three private stairways and construct three new shore-perpendicular accessways providing public access connection between the beach and Sand Point Road. The new coastal access path and stairways would be constructed within two existing County easements utilized for access from Sand Point Road to the beach and across the revetment, which are located at 755 Sand Point Road (Assessor Parcel Number [APN] 005-460-043) and 501 Sand Point Road (APN 004-098-011), as well as a third accessway at the far north/west end on APN 005-600-018 (no address). The new coastal access points may be visible from private residences along Sand Point Road but would not be seen from public vistas. This aspect of the proposed Project would improve beach access and would not create substantial visual change to the existing character. As shown in the photosimulations generated for this proposed Project, changes to the visual character of the proposed Project would be negligible. The materials used for the proposed staircases would generally blend in with the revetment and would not detract from public views provided along the shoreline or offshore.

In addition to the repair of the revetment, the proposed Project would result in the installation or establishment of new dune vegetation. Implementation of the dune vegetation feature would involve the removal of approximately 1.5 acres of existing non-native vegetation (e.g. ice plant [*Carpobrotus edulis*]) along the splash wall and swale, and planting of native dune vegetation in selective areas along the length of the splash wall. While this may have temporary adverse impacts on scenic vistas, the planting of native dune vegetation would improve visual character over the long-term.

Effects on Scenic Resources Along Scenic Highways

Neither construction activities nor the revetment would be visible from Hwy 101 and views would be blocked by existing vegetation and residential development along Sand Point Road. Therefore, impacts to Hwy 101 would be *insignificant*.

Impact AV-2. The Project could result in new light or glare sources during construction.

New sources of lighting can be a nuisance to sensitive viewers through light spill or can create an ambient light glow that emanates upward and diminishes views of the clear night sky. Construction

[1] The armored rock would be placed within the swale between the revetment and the splash wall and would not increase the footprint of the revetment.

activities under the proposed Project would produce some new temporary lighting sources, such as light and glare from heavy equipment. Construction work would primarily occur between the hours of 7:00 A.M. and 7:00 P.M.; however, work outside of these hours may be necessary based on tidal conditions. Construction activities would comply with necessary local regulations to minimize construction lighting impacts. With the application of the County's requirements and regulatory standards and the temporary nature of potential impacts to a given sensitive receiver, construction-related lighting impacts would be *insignificant*.

3.1.4.3 Cumulative Impacts

As discussed in Impacts AV-1 and AV-2, the proposed Project is expected to result in cumulatively considerable adverse effects on scenic resources due to the temporary nature of construction and the application of relevant State and County regulations and requirements. Therefore, the proposed Project would not contribute to cumulative impacts to aesthetics and visual resources and impacts would be *insignificant*.

3.1.4.4 Proposed Mitigation

No mitigation measures are required.

3.1.4.5 Residual Impacts

Impact AV-1. The proposed Project could result in construction-related impacts on scenic vistas in the Coastal Zone. However, these impacts would be short-term and temporary and *insignificant*, particularly given the lack of public access to the Project site. Over the long-term changes to the height of the revetment would have a negligible effect on scenic vistas in the Coastal Zone and improvements to public access and native dune vegetation would result in beneficial impacts.

Impact AV-2. Construction activities under the proposed Project would produce some new lighting sources, such as light and glare from heavy equipment, which could operate as late as 7:00 P.M. However, with the application of the County's requirements and regulatory standards and the temporary nature of potential impacts to a given sensitive receiver, construction-related lighting impacts would be *insignificant*.

Section 3.2
Air Quality

3.2.1 Introduction

This section describes the environmental and regulatory setting for air quality conditions, evaluates the potential for impacts on air quality that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and identifies mitigation measures to reduce identified impacts where possible. The information and analysis in this section is based on information outlined in Santa Barbara County's Clean Air Plan (CAP), Comprehensive Plan Land Use Element Air Quality Supplement, and information from recent environmental documents prepared for the County. The discussion of air quality in the Project area is broadly derived from the above sources as well as the Santa Barbara County Air Pollution Control District (SBCAPCD) Ambient Air Monitoring Network and Air Quality Reports, the 2022 Ozone Plan, and the Environmental Review Guidelines for SBCAPCD. Issues relating to the generation of greenhouse gas (GHG) emissions and their contribution to climate change impacts are discussed in Section 3.5, *Greenhouse Gas Emissions*.

3.2.2 Environmental Setting

The California Air Resources Board (CARB) has divided California into 15 regional air basins according to topographic drainage features. Each basin is further divided into Air Pollution Control Districts (APCDs), which are responsible for managing and enforcing air quality regulations within their districts.

The proposed Project is located within the South Central Coast Air Basin (SCCAB), which is comprised of three districts: San Luis Obispo County APCD, SBCAPCD, and Ventura County APCD. The Project site and the surrounding vicinity is within the jurisdiction of SBCAPCD.

3.2.2.1 Topography and Meteorology

Air quality in Santa Barbara County is influenced by both local topography and meteorological conditions. Meteorological and topographical influences that may affect air quality at the Project site and the surrounding include the semi-permanent high-pressure cell that lies off the Pacific Coast, which leads to limited rainfall (approximately 16 inches per year), warm dry summers, and relatively cold dry winters. Maximum summer temperatures average approximately 74 degrees Fahrenheit (°F); during winter, average minimum temperatures are approximately 47°F (National Oceanic and Atmospheric Administration [NOAA] 2024).

Temperature inversion conditions are common in the county and can affect the mixing and dispersion of pollutants. Temperature inversions result when cool, stable air lies below warmer air aloft. Inversions also tend to confine horizontal flow through passes and valleys that are below the inversion height. Surface temperature inversions (0 to 500 feet) are most frequent during the winter, and subsidence inversions (1,000 to 2,000 feet) are most frequent during the summer. Inversions are an increase in temperature with height and are directly related to the stability of the atmosphere. Inversions act as a cap to the pollutants that are emitted below or within them, and ozone (O_3)

concentrations are often higher directly below the base of elevated inversions than they are at the Earth's surface. For this reason, elevated monitoring sites will occasionally record higher O_3 concentrations than sites at lower elevations. Generally, the lower the inversion base height and the greater the rate of temperature increases from the base to the top, the more pronounced effect the inversion will have on inhibiting vertical dispersion.

Santa Ana winds are also a frequent occurrence in the county and are an important factor in air quality conditions. Santa Ana winds are northeasterly winds that occur primarily during fall and winter, but occasionally in spring. These are warm, dry winds blown from the high inland desert that descend the slopes of a mountain range. Wind speeds associated with the Santa Ana winds are generally 15 to 20 miles per hour (mph), though wind speeds can sometimes exceed 60 mph. During Santa Ana conditions, air pollutants emitted within the county are moved out to sea. These pollutants can then be moved back onshore into the county in what is called a "post-Santa Ana condition."

Most of the total annual precipitation in the county occurs during migratory storms. Measurements of surface wind speed and direction are made at numerous airports and air quality monitoring stations throughout the county. The air quality monitoring stations that are equipped to measure wind speed and direction are described in Section 3.2.2.5, *Ambient Air Monitoring*. Precipitation occurs primarily in the winter, with 90 percent of the annual precipitation occurring between November and April. Annual precipitation averages are as low as six inches at some inland measuring stations, and as high as 30 inches in some areas of the coast. Summer months are generally quite dry, with thunder showers providing occasional rainfall. Large fluctuations in annual rainfall are common, which is typical for regions that receive small amounts of precipitation. Precipitation inland varies considerably as a function of distance from the coast, elevation, and topography (County of Santa Barbara 2021).

3.2.2.2 Sensitive Receptors

Infants and children, elderly persons, individuals with pre-existing health problems, those who are close to the emissions source, or those who are exposed to air pollutants for longer periods are considered more sensitive to air pollutants than others. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, seniors, and people with some health issues are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential land uses are considered sensitive to poor air quality because people in residential areas are often at home for extended periods and are therefore subject to extended exposure to the type of air quality present at the residence. Recreational land uses offer individuals a location to exercise and are therefore considered moderately sensitive to air pollution. Vigorous exercise places a high demand on the human respiratory function and poor air quality could add potentially detrimental stresses to the respiratory function. Sensitive receptors in the Project area primarily include private residencies, and to a lesser extent, the recreational users along the beachfront, which is utilized by families and individuals.

3.2.2.3 Common Air Pollutants

Air pollution emissions within the county are generated from several stationary, mobile, and natural sources – from large power plants and manufacturing facilities to residential water heaters and consumer products. Stationary sources can be divided into two major subcategories: 1) point sources; and 2) area sources. Point sources occur at an identified location and are usually associated with

manufacturing and industry. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions in a region. Examples of area sources include residential and commercial water heaters, landscaping (e.g., lawnmowers), agricultural operations, landfills, and consumer products such as barbecue lighter fluid, hair spray, etc. Mobile sources are transportation-related emissions, including vehicles, marine vessels, aircraft, trains, and heavy construction equipment. Within the SCCAB, the primary source of emissions may vary depending on the pollutant.

The Federal and State governments have identified criteria pollutants and a host of air toxics that have substantial adverse effects on human health and the environment in concentrations, and established air quality standards to control those concentrations through the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). The criteria pollutants for which Federal and State standards have been promulgated and which are most relevant to air quality planning and regulation in the SCCAB include O_3, carbon monoxide (CO), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), reactive organic compounds (ROCs), volatile organic compounds (VOCs), sulfur dioxide (SO_2), and lead (Pb). In addition, there are additional toxic air contaminants (TACs) that are of concern in the SCCAB (see Section 3.2.2.4, *Toxic Air Contaminants*). The following is a general description of the physical and health effects from the governmentally regulated air pollutants.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (i.e., the "good" O_3) layer extends upward from about 10 to 30 miles and protects life on Earth from the Sun's harmful ultraviolet rays (UV-B). "Bad" O_3 is a photochemical pollutant and is formed from complex chemical reactions involving VOCs, NO_x, and sunlight; therefore, VOCs and NO_x are O_3 precursors. VOCs and NO_x are emitted from various sources throughout the county. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high O_3 levels. O_3 also damages natural ecosystems (e.g., forests and foothill plant communities) and damages agricultural crops and some human-made materials (e.g., rubber, paint, and plastics). Societal costs from O_3 damage include increased healthcare costs, the loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields.

Within the SCCAB, the primary source of O_3 and O_3 precursor emissions comes from marine shipping (42 percent), followed by on-road and other mobile emissions (30 percent), area sources (14 percent), and stationary sources (14 percent) (SBCAPCD 2023b).

Carbon Monoxide (CO). CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere and is produced by both natural processes and human activities. In remote areas far from human habitation, CO occurs in the atmosphere at an average background concentration of 0.04 ppm, primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin. Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Within the SCCAB, the primary source of CO emissions comes from on-road and other mobile emissions (80 percent), area sources (11 percent), stationary sources (5 percent), and marine shipping (4 percent) (SBCAPCD 2023b).

Nitrogen Dioxide (NO_2). NO_x comprises a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3, and react in the atmosphere to form acid rain. NO_2 (often reported as total nitrogen oxides, NO_x) is a reddish-brown gas that can cause breathing difficulties at high levels. It is formed from nitrogen (N_2) and oxygen (O_3) under conditions of high temperature and pressure which are generally present during combustion of fuels (e.g., motor vehicles); nitric oxide (NO) reacts rapidly with the oxygen in air to form NO_2. The two gases, NO and NO_2, are referred to collectively as NO_x. In the presence of sunlight, atmospheric NO_2 reacts and splits to form a NO molecule and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California (fewer or no stoves). In healthy subjects, increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms, and emergency room asthma visits.

Within the SCCAB, the primary source of NO_x emissions comes from marine shipping (66 percent) on-road and other mobile emissions (26 percent), stationary sources (7 percent), and area sources (1 percent) (SBCAPCD 2023b).

Inhalable Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or 10 one-millionths of a meter. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract.

Respirable particles (i.e., particles less than 10 microns in diameter, denoted as PM_{10}) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis, and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM.

Within the SCCAB, the primary source of PM_{10} emissions comes from construction activities (38 percent), fugitive dust from roadways (27 percent), agricultural operations (12 percent), on-road and other mobile emissions (7 percent), residential fuel consumption (6 percent), marine shipping (3 percent), stationary sources (3 percent), and other sources (4 percent) (SBCAPCD 2023b).

Fine Inhalable Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (i.e., particulate matter 2.5 microns in diameter or less), both Federal and State $PM_{2.5}$ standards have been created. Emissions of $PM_{2.5}$ result from fuel combustion (e.g., motor vehicles, power generation and industrial facilities), residential fireplaces and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_x, and VOCs.

Particulate matter primarily affects infants, children, the elderly, and those with pre-existing cardiopulmonary disease. A consistent correlation between elevated ambient fine particulate matter (particles less than 10 microns in diameter, denoted as $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the U.S. and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by $PM_{2.5}$ and increased mortality, reduction in lifespan, and an increased mortality from lung cancer.

Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions, to school and kindergarten absences, to a decrease in respiratory function in normal children and to increased medication use in children and adults with asthma. Studies have also shown lung function growth in children is reduced with long-term exposure to PM. In addition to children, the elderly, and people with pre-existing respiratory and/or cardiovascular disease appear to be more susceptible to the effects of PM_{10} and $PM_{2.5}$.

Within the SCCAB, the primary source of $PM_{2.5}$ emissions comes from residential fuel consumption (21 percent), on-road and other mobile emissions (17 percent), construction activities (14 percent), fugitive dust from roadways (12 percent), marine shipping (9 percent), agricultural operations (7 percent), stationary sources (6 percent), and other sources (14 percent) (SBCAPCD 2023b).

Reactive Organic Compounds (ROCs) and Volatile Organic Compounds (VOCs). ROCs and VOCs are organic gases that are formed solely of hydrogen and carbon. ROCs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation). These gases contribute to the formation of tropospheric O_3 and smog and can cause adverse health effects in high concentrations, particularly indoors. These include eye, nose, and throat irritation, headaches, loss of coordination, nausea, and even severe damage to the liver, kidney, and central nervous system.

Sulfur Dioxide (SO_2). SO_2 is a colorless gas with a sharp odor. It reacts in air to form sulfuric acid, which contributes to acid precipitation, and sulfates, which are components of particulate matter. Main sources of SO_2 include coal and oil used in power plants and industries. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of SO_2. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses, even after exposure to higher concentrations of SO_2.

Within the SCCAB, the primary source of SO_2 emissions comes from marine shipping (74 percent), stationary sources (16 percent), on-road and other mobile emissions (7 percent), and area sources (3 percent) (SBCAPCD 2023b).

Lead (Pb). Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric Pb over the past three decades. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death. There is no evidence to suggest that there are direct effects of Pb on the respiratory system.

3.2.2.4 Toxic Air Contaminants

TACs are defined in Section 39655 of the California Health and Safety Code as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness or may pose a present or potential hazard to human health. In addition, substances that have been listed as Federal hazardous air pollutants (HAPs) pursuant to Section 7412 of Title 42 of the U.S. Code are TACs under the air toxics program pursuant to Section 39657(b) of the California Health and Safety Code. Health impacts include an increased risk of cancer due to continual inhalation of TACs. Most of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (i.e., diesel particulate matter [DPM]). Based on estimated ambient statewide DPM levels in 2012, DPM is believed to be responsible for approximately 70 percent of California's estimated known cancer risk attributable to TACs. According to CARB, DPM exposure contributes to numerous health impacts, including increased hospital admissions for heart disease, respiratory failure, and premature death (CARB 2023b). Studies have also shown that approximately 22 percent of known cancer risk is due to other TACs associated with mobile sources – including benzene, butadiene, and formaldehyde – and approximately 10 percent of the risk is attributed to stationary sources (including industries and other certain businesses, such as dry cleaners and chrome plating operations) (South Coast Air Quality Management District [SCAQMD] 2015).

CARB indicates that one of the highest public health priorities is the reduction of DPM generated by vehicles on California's freeways and highways, as it is one of the primary TACs with the most direct and common implications for respiratory health problems. Per CARB criteria, heavily traveled roadways where annual average daily trips (AADT) exceed 100,000 can be sources of particulate emissions, particularly from diesel-fueled engines such as those associated with heavy haul trucks and other heavy construction equipment. CARB's Air Quality and Land Use Handbook: A Community Health Perspective (2005) makes specific recommendations to consider existing sensitive uses when locating new TAC-emitting facilities or consider TAC-emitting sources when siting sensitive receptors. CARB recommends the following buffer distances be observed when locating these types of TAC emitters or sensitive land uses:

- Freeways or major roadways – 500 feet
- Dry cleaners – 500 feet
- Auto body repair services – 500 feet

- Gasoline dispensing stations with an annual throughput of less than 3.6 million gallons – 50 feet; gasoline dispensing stations with an annual throughput at or above 3.6 million gallons – 300 feet; and
- Gasoline dispensing stations with an annual throughput at or above 3.6 million gallons – 300 feet.

In Santa Barbara County, U.S. Highway 101 (Hwy 101) is the only roadway considered a "high-volume roadway," defined as a roadway that has average daily traffic above 100,000 vehicles in an urban area or 50,000 vehicles in a rural area (SBCAPCD 2017a). In 2023, based on the California Department of Transportation (Caltrans) Traffic Census Program data, Hwy 101 in unincorporated areas carried more than 120,000 AADT at its intersection with State Route (SR-) 154 and El Sueno Road in the Eastern Goleta Valley on the South Coast (Caltrans 2025).

3.2.2.5 Ambient Air Monitoring

The SBCAPCD is responsible for monitoring air quality in Santa Barbara County's portion of the SCCAB in order to determine whether pollutant concentrations meet Federal and State air quality standards. The SBCAPCD has 12 air monitoring stations across the county. Monitoring stations measure a number of different variables including wind direction, wind speed, ambient temperature, solar radiation total hydrocarbons, O_3, nitrogen oxides (NO_x), CO, SO_2, hydrogen sulfide (H_2S), $PM_{2.5}$, and PM_{10}. The stations are categorized as Industrial Monitoring Stations (IMS) and State and Local Air Monitoring Stations (SLAMS): IMS stations are used to determine baseline air quality and the impacts of specific operations (such as oil and gas facilities) and SLAMS measure urban and regional air quality. Table 3.2-1 identifies and describes the monitoring stations found in the county. Figure 3.3-1 shows the locations of air quality monitoring stations throughout the county (SBCAPCD 2024a).

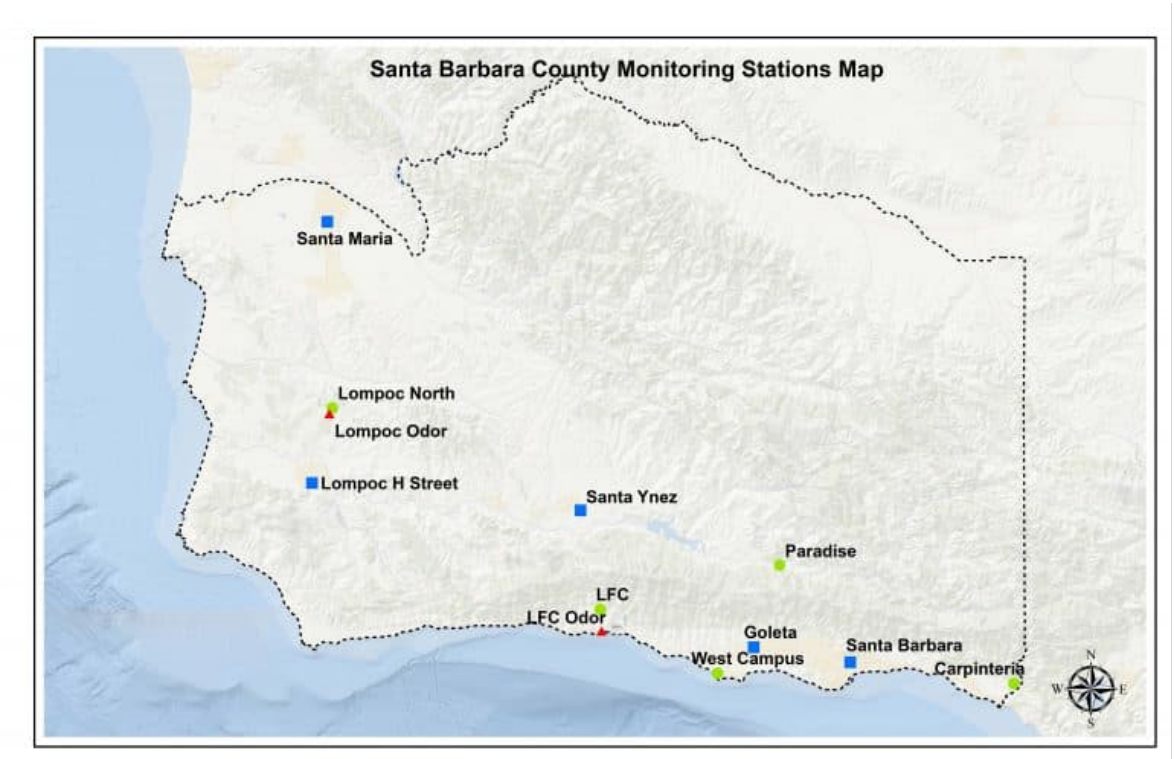


Figure 3.2-1. Air Quality Monitoring Station Locations

Table 3.2-1. Santa Barbara County Air Quality Monitoring Stations

	Station Names	Type	Monitoring
1	Carpinteria	Industrial/ SLAMS[1]	O_3, NO_2, Wind Speed, Wind Direction, Ambient Temperature
2	Goleta	SLAMS	O_3, PM_{10}, $PM_{2.5}$, Wind Speed, Wind Direction, Ambient Temperature
3	Las Flores Canyon	Industrial/ SLAMS[1]	O_3, NO_2, SO_2, CO, Total Hydrocarbons, PM_{10}, Wind Speed, Wind Direction, Ambient Temperature
4	Las Flores Canyon Odor	Industrial	H_2S, Wind Speed, Wind Direction, Ambient Temperature
5	Lompoc – H Street	SLAMS	O_3, NO_2, SO_2, CO, PM_{10}, $PM_{2.5}$, Wind Speed, Wind Direction, Ambient Temperature
6	Lompoc North	Industrial	O_3, NO_2, SO_2, Total Hydrocarbons, Wind Speed, Wind Direction, Ambient Temperature
7	Lompoc Odor	Industrial	H_2S, Total Reduced Sulfur, Wind Speed, Wind Direction, Ambient Temperature
8	Paradise Road	Industrial/ SLAMS[1]	O_3, NO_2, Wind Speed, Wind Direction, Ambient Temperature
9	Santa Barbara	SLAMS	O_3, PM_{10}, $PM_{2.5}$, Wind Speed, Wind Direction, Ambient Temperature
10	Santa Maria	SLAMS	O_3, NO_2, CO, PM_{10}, $PM_{2.5}$, Wind Speed, Wind Direction, Ambient Temperature
11	Santa Ynez	SLAMS	O_3
12	West Campus (University of California, Santa Barbara)	Industrial	SO_2, THC, H_2S, TRS, Wind Direction, Wind Speed

Notes: [1] Ozone monitors at these locations are SLAMS; other monitors are industrial.
Source: SBCAPCD 2024a.

Table 3.3-2 combines the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for relevant air pollutants and provides a summary of ambient air quality measured within the county for the years 2018 to 2021. Since 2018, exceedances have occurred for the Federal and State O_3 standards, the State 24-hour PM_{10} standard, and the Federal 24-hour $PM_{2.5}$ standard. The Federal and State standards for CO, NO_2, and SO_2, and the Federal standard for PM_{10} were not exceeded from 2018 through 2021 (CARB 2023a; SBCAPCD 2018, 2019, 2020b, 2021).

Table 3.3-2. Ambient Air Quality Standards and Exceedances for Criteria Pollutants in the SCCAB

Pollutant/Standard	Number of Days Threshold Was Exceeded & Maximum Levels During Violations			
	2020	2021	2022	2023
Ozone				
State 1-Hour > 0.09 ppm	4 days	0 days	0 days	0 days
State 8-Hour > 0.07 ppm	6 days	1 days	0 days	0 days
Federal 8-Hour > 0.07 ppm	6 days	1 days	0 days	0 days
Max. 1-Hour Conc. (ppm)	0.105	0.082	0.077	0.071
Max. 8-Hour Conc. (ppm)	0.086	0.071	0.069	0.068
Carbon Monoxide (CO)				
State 1-Hour > 20 ppm	0 days	0 days	0 days	0 days
Federal 1-Hour > 35 ppm	0 days	0 days	0 days	0 days
Max. 1-Hour Conc. (ppm)	2.5	1.7	0.9	1.7
Inhalable Particulates (PM_{10})				
State 24-Hour > 50 $\mu g/m^3$	33 days	13 days	7 days	13 days
Federal 24-Hour > 150 $\mu g/m^3$	0 days	0 days	0 days	0 days
Max. 24-Hour Conc. ($\mu g/m^3$)	113.3	73.1	76.0	115.0
Annual Average ($\mu g/m^3$)	25.9	22.8	21.7	20.0
Fine Inhalable Particulates ($PM_{2.5}$)				
Federal 24-Hour > 35 $\mu g/m^3$	10 days	0 days	0 days	0 days
Max. 24-Hour Conc. ($\mu g/m^3$)	85.6	20.2	21.0	41.0
Annual Average ($\mu g/m^3$)	9.2	6.6	8.0	7.9
Nitrogen Dioxide (NO_2)				
State 1-Hour > 0.18 ppm	0 days	0 days	0 days	0 days
Federal 1-Hour > 0.10 ppm	0 days	0 days	0 days	0 days
Max. 1-Hour Conc. (ppm)	0.036	0.062	0.024	0.034
Sulfur Dioxide (SO_2)				
State 1-Hour > 0.25 ppm	0 days	0 days	0 days	0 days
State 24-Hour > 0.14 ppm	0 days	0 days	0 days	0 days
State 24-Hour > 0.04 ppm	0 days	0 days	0 days	0 days
Max 1-Hour Conc. (ppm)	0.026	0.011	0.005	0.002

Source: SBCAPCD 2021a, 2022a, 2023a, 2024b.

3.2.2.6 Odors

Odors are not regulated under the Federal Clean Air Act or the California Clean Air Act (CCAA) (see Section 3.2.3, *Regulatory Setting*); however, odors are considered nuisances under the California Environmental Quality Act (CEQA). Odors can potentially affect human health in several ways; odorant compounds can irritate the eyes, nose, and throat, which can reduce respiratory volume, while others can have more serious effects on the central nervous system and other organs. Common sources of odors and nuisance emissions include wastewater treatment plants, landfills, composting facilities, petroleum refineries, and chemical manufacturing facilities. Additionally, construction activities can create objectionable odors associated with the operation of gasoline or diesel-powered equipment and emissions of heavy machinery (e.g. cars, trucks).

3.2.3 Regulatory Setting

Federal, State, and local regulations have been enacted to address air quality in Santa Barbara County. The following section summarizes applicable policies and regulations that may relate directly to the proposed Project and its impacts.

3.2.3.1 Federal and State: Ambient Air Quality Standards

Both the Federal and State governments have established ambient air quality standards (AAQS) for several different pollutants, a summary of which is provided in Table 3.2-2 above. For some pollutants, separate standards have been set for different time periods. Most standards have been set to protect public health. However, for other pollutants, standards have been based on some other value (e.g., protection of crops, protection of materials, or avoidance of nuisance conditions).

Santa Barbara County is currently in attainment for all Federal air quality standards. However, as of January 2024 the county is designated nonattainment (transitional) status for the State 1-hour and 8-hour O_3 standard, and nonattainment for the State 24-hour PM_{10} standard. It should be noted that the county recorded 0 days of exceedance of this standard in 2023 (SBCAPCD 2024b). The county is designated as attainment for Federal and State standards for all other pollutants. Table 3.2-3 identifies the attainment and nonattainment pollutant designations for the county.

Table 3.2-3. Santa Barbara County Attainment/Nonattainment Classification Summary

Pollutant	Averaging Time	California Standards		Federal Standards	
		Pollutant Concentration	Attainment Status	Pollutant Concentration	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm	NA-T	*Revoked*	--
	8-hour[1]	0.07 ppm	NA-T	0.07 ppm	A/U
Nitrogen Dioxide (NO_2)[3]	1-hour	0.18 ppm	A	0.10 ppm	A/U
	Annual Arithmetic Mean	0.03 ppm	A	0.053 ppm	A/U
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm	A	0.075 ppm	A/U
	24-hour	0.04 ppm	A	*Revoked*	--
Carbon Monoxide (CO)	1-hour	20 ppm	A	35 ppm	A/U
	8-hour	9.0 ppm	A	9.0 ppm	A/U
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 $\mu g/m^3$	A/U
	Annual Arithmetic Mean[2]	12 $\mu g/m^3$	A	9.0 $\mu g/m^3$	A/U
Particulate Matter (PM_{10})	24-hour	50 $\mu g/m^3$	N	150 $\mu g/m^3$	U
	Annual Arithmetic Mean	20 $\mu g/m^3$	N	*Revoked*	--
Lead	30-day	1.5 $\mu g/m^3$	A	--	--
	Rolling 3-month	--	--	0.15 $\mu g/m^3$	A/U
Sulfates	24-hour	25 $\mu g/m^3$	A	--	--
Hydrogen Sulfide	1-hour	0.03 ppm	A	--	--
Vinyl Chloride (chlorothene)	24-hour	0.01 ppm	--	--	--
Visibility Reducing Particles (VRP)[4]	8-hour	--	U	--	--

Notes:

A=Attainment; N=Nonattainment; NA-T: Nonattainment Transistional; U=Unclassified; A/U=Attainment/Unclassified;

-- = No Standard

mg/m^3=milligrams per cubic meter; ppm=parts per million; $\mu g/m^3$=micrograms per cubic meter

[1] U.S. Environmental Protection Agency (USEPA) strengthened the 8-hour O_3 standard from the 1997 level of 0.08 ppm to 0.075 ppm on May 27, 2008, but delayed implementation of the standard. Designations for the 2008 standard were finalized on April 30, 2012. Later, on October 1, 2015, the national 8-hour O_3 primarily and secondary standards were lowered from 0.075 to 0.070 ppm.

[2] USEPA strengthened the 24-hour fine particle standard from the 1997 level of 65 $\mu g/m^3$ to 35 $\mu g/m^3$ on September 21, 2006. The annual standard was strengthened from 15 to 12.0 $\mu g/m^3$ on January 15, 2013. On May 6, 2024, the NAAQS standard was lowered from 12.0 to 9.0$\mu g/m^3$. Based on prior monitoring data, Santa Barbara County is expected to be in attainment.

[3] The State NO_2 ambient air quality standard was amended on February 22, 2007, to lower the 1-hour standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. On January 22, 2010, the USEPA set a new 1-hour NO_2 standard of 0.10 (ppm). They also retained the annual NO_2 standard of .053 ppm.

[4] Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: SBCAPCD 2025.

3.2.3.2 Federal

Federal Clean Air Act

The Federal CAA was passed in 1963 (amended in 1990) and was the first comprehensive Federal law to regulate air emissions from stationary and mobile sources. Among other things, the law authorizes the U.S. Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards (NAAQS), for pollutants considered harmful to public health and the environment, including the six criteria pollutants: CO, Pb, NO_2, O_3, $PM_{2.5}$, PM_{10}, and SO_2. The NAAQS help to ensure basic health and environmental protection from air pollution. The NAAQS currently in effect for each pollutant, as well as the attainment status of the SCCAB, are shown in Table 3.3-2. The Federal CAA also gives the USEPA the authority to limit emissions of air pollutants coming from sources like chemical plants, utilities, and steel mills.

In 1990, the U.S. Congress adopted the Federal Clean Air Act Amendments (CAAA), which updated the nation's air pollution control program. The Federal CAAA established a number of requirements, including new deadlines for achieving Federal clean air standards.

The USEPA is the Federal agency charged with administering the Federal CAAA and other air quality-related legislation. As a regulatory agency, USEPA's principal functions include setting NAAQS; establishing minimum national emission limits for major sources of pollution; and promulgating regulations.

The Federal CAAA require USEPA to approve state implementation plans (SIPs) to meet and/or maintain the NAAQS. California's SIP is comprised of plans developed at the regional or local level.

3.2.3.3 State

California Clean Air Act

The CCAA was enacted in 1988 (California Health & Safety Code Section 39000 et seq.). California also has ambient air quality standards (i.e., CAAQS), which predate USEPA's formation in 1970 and the original NAAQS for pollutants considered harmful to public health and the environment, including the six criteria pollutants, as well as sulfates, hydrogen sulfide, vinyl chloride (chloroethene), and visibility reducing particles. The CAAQS currently in effect for each pollutant, as well as the attainment status of the SCCAB, are shown in Table 3.3-2. In 1959, California enacted legislation requiring the California Department of Public Health (CDPH) to establish air quality standards and necessary controls for motor vehicle emissions. The CCAA requires all areas of the State to achieve and maintain the CAAQS by the earliest practicable date. California law continues to mandate CAAQS, although attainment of the NAAQS has precedence over attainment of the CAAQS. The CAAQS includes more stringent standards than the NAAQS. CARB ensures the implementation of the CCAA and responds to the Federal CAA. CARB is responsible for the control of vehicle emission sources, while the local air district is responsible for enforcing standards and regulating stationary sources.

California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both Federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets CAAQS, compiles emission inventories,

develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB is responsible for the control of vehicle emission sources, while the local air district is responsible for enforcing standards and regulating stationary sources.

California Air Toxics "Hot Spots" Information and Assessment Act

The Air Toxic "Hot Spots" Information and Assessment Act identifies TAC hot spots where emissions from specific stationary source facilities may expose individuals to an elevated risk of adverse health effects. It requires that a business or other establishment identified as a significant source of toxic emissions provide the affected population with information about the health risks posed by the emissions. Health Risk Assessments (HRAs) would identify the hazard or hazardous material, assess the amount, duration, and pattern of exposure to the hazard or hazardous material, assess the amount it would take to cause negative health effects, and characterize the risk to the general population and sensitive receptors from the hazard or hazardous material. The California Office of Environmental Health Hazard Assessment provides *A Guide to Health Risk Assessment and The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (2015) to aid California projects' compliance with the Air Toxic "Hot Spots" Information and Assessment Act. In Santa Barbara County, SBCAPCD implements and enforces the Air Toxic "Hot Spots" Information and Assessment Act. Over time, SBCAPCD has worked to reduce the number of significant risk facilities and there are two remaining significant risk facilities in the county: Greka Oil & Gas, Inc. – Greka South Cat Canyon Facility, and Greka Oil & Gas, Inc. – Greka Refining Company (SBCAPCD 2025).

California Building Code

California Code of Regulations, Title 24, is known as the CBC, which establishes the regulations for building construction and system design and installation to achieve energy efficiency and preserve outdoor and indoor environmental quality. The CBC includes the following subparts which are most applicable to development under the proposed Project.

California Code of Regulations, Title 24, Part 6 comprises the California Energy Code, which was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. The Title 24 standards were updated in 2021 and became effective on January 1, 2023. The updated standards apply to all buildings for which an applicable building permit is submitted on or after January 1, 2023, and established new standards for electric-ready requirements, expanded solar PV and battery storage, and strengthened ventilation standards for improved air quality. The Title 24 standards also include efficiency improvements to the residential standards for attics, walls, water heating, and lighting; and efficiency improvements to the non-residential standards are in alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 National Standards. Although it was not originally intended to reduce criteria pollutant or TAC emissions, electricity production by fossil fuels results in O_3 precursor emissions and energy-efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased criteria pollutant and TAC emissions from residential and non-residential buildings.

Title 24, California Code of Regulations (CCR) Part 11 comprises CALGreen, which establishes mandatory green building code requirements as well as voluntary measures (Tier 1 and Tier 2) for new buildings in California. The mandatory provisions in CALGreen will reduce the use of VOC-emitting materials, strengthen water efficiency conservation, increase construction waste recycling,

and increase energy efficiency. Tier 1 and Tier 2 are intended to further encourage building practices that minimize the building's impact on the environment and promote a more sustainable design.

3.2.3.4 Local

Santa Barbara County Air Pollution Control District

SBCAPCD monitors air quality and regulates stationary emission sources in the county. As a responsible agency under CEQA, SBCAPCD reviews and approves environmental documents prepared by other lead agencies or jurisdictions to reduce or avoid impacts on air quality and to ensure that the lead agency's environmental document is adequate to fulfill CEQA requirements. As a concerned agency, the SBCAPCD comments on environmental documents and suggests mitigation measures to reduce air quality impacts.

- Rule 303 – Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material in violation of Section 41700 of the Health and Safety Code which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public or which endanger the comfort, repose, health or safety or any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- Rule 345 – Control of Fugitive Dust from Construction and Demolition Activities. This rule applies to any activity associated with the construction or demolition of a structure. Activities subject to this regulation are also subject to Rule 302 (Visible Emissions) and Rule 303 (Nuisance). This rule includes specific requirements and standards applicable to construction or demolition activities to reduce and prevent visible emissions.

The Federal CAAA of 1990 and the CCAA of 1988 mandate the preparation of plans for the attainment of air quality standards that provide an overview of air quality and sources of air pollution, and identify pollution-control measures needed to meet Federal and State air quality standards. The SBCAPCD and the Santa Barbara County Association of Governments (SBCAG) are responsible for formulating and implementing air quality attainment plans for Santa Barbara County.

To comply with these regulations, the County prepared an Air Quality Attainment Plan (AQAP) in 1979. The 1979 AQAP demonstrated that the area could not attain the Federal O_3 standard by the required attainment date of 1982 despite the implementation of all reasonably available control techniques on stationary sources. The Federal CAAA requires that air quality plans include "…such other measures as may be necessary to insure [sic] attainment and maintenance of such primary or secondary standards (for which the area is in a nonattainment status), including, but not limited to transportation controls…" In order to achieve this directive, land use control measures were and have been included in the AQAP to aid in future air quality planning efforts. Subsequent AQAPs have been issued in 1989 and 1991.

In 1994, the SBCAPCD began preparing CAPs, which served as triennial updates to the AQAPs. The CAP provides an overview of the regional air quality and sources of air pollution, and identifies the pollution-control measures needed to meet clean-air standards. The schedule for plan development is outlined by Federal and State requirements, and is influenced by regional air quality. CAPs affect the development of SBCAPCD rules and regulations and other programs. They also influence a range of activities outside the district including transportation planning, allocation of monies designated for air-quality projects, and more (SBCAPCD 2022a).

The SBCAPCD 2022 Ozone Plan is the most recent triennial update to the County AQAP required by the State to show how SBCAPCD plans to meet the State 8-hour O_3 standard. Note that past ozone plan updates addressed both the Federal and State O_3 standards, but this place addresses the State standards only because the SCCAB is designated "attainment" for the Federal 8-hour O_3 standards. The 2022 Ozone Plan builds upon and updates the 2019 Ozone Plan and includes an inventory of O_3 precursor emissions in the county, the most prevalent of which are ROCs and NO_x. The 2022 Ozone Plan focuses on reducing O_3 precursor emissions through predicting vehicle activity trends and applying both stationary source emission control measures and transportation control measures, which reduce mobile-source emissions, the primary source of ROC and NO_x emissions in the county. The 2022 Ozone Plan satisfies both Federal and State planning requirements and was adopted by the SBCAPCD Board in December 2022. On January 1, 2024, Santa Barbara County's designation for the State O_3 standards was changed from "nonattainment" to "nonattainment-transitional" (SBCAPCD 2025).

Santa Barbara County Comprehensive Plan, Land Use Element, Air Quality Supplement

Due to the exceedance of the Federal ambient air quality standard for O_3, the 1977 CAAA requires that air quality plans include "…such other measures as may be necessary to insure [sic] attainment and maintenance of such primary or secondary standards (for which the area is in a nonattainment status), including, but not limited to transportation controls…" Since the success of certain aspects of transportation planning is an integral part of land use planning, and since emission growth from population-related sources contributes to the overall emission growth in the county, land use control measures have been included in the Air Quality Supplement to the Land Use Element in the County's Comprehensive Plan. These land use measures aid in future air quality planning efforts and present a coordinated approach to integrating air quality planning techniques into the County's land use planning program. Such measures include the promotion of alternative transportation, directing new development within established urbanized areas, and restricting the development of auto-dependent facilities (County of Santa Barbara 2009).

Regional Transportation Plan/Sustainable Communities Strategy

The Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) is a report published every decade. The most recent version is the Connected 2050 RTP/SCS. The Connected 2050 RTP/SCS provides a collective vision for the region's future that balances transportation and housing needs with social, economic, and environmental goals. The plan helps guide future planning efforts and policy decisions that affect transportation, including its relationship with housing and land use that will reduce GHG emissions in our region. The Connected 2050 RTP/SCS provides recommendations to help cities and the county make important decisions about transportation, housing, and land-use. Connected 2050 RTP/SCS provides forward-looking recommendations for 2050 because many of our local government decisions will influence the region's long-term growth and development over the next 30 years. Fundamentally, this plan explores the region's land use and travel patterns, accounts for the demographic growth that will force new demands on both, and presents a vision for how they can work together to satisfy the goals important to the region while also meeting the State's GHG reduction targets.

Santa Barbara County Association of Governments 2050 Regional Growth Forecast

The purpose of the Regional Growth Forecast is to provide consistent long-range population, job, and household forecasts for use in long-range regional planning to the year 2050 for the county, its major economic and demographic regions, and its eight incorporated cities. The Regional Growth Forecast is a requirement of the SBCAG RTP/SCS. The forecast is adopted by the SBCAG board and used in a variety of applications such as local General Plans, public service district forecasts, business development, transportation forecasts, and air quality planning. This forecast is based on the land use capacity of local general plans and takes input from all jurisdictions, the public, and the SBCAG board. The forecast is updated periodically as new demographic data, land use policies, and changes in growth assumptions warrant.

3.2.4 Environmental Impact Analysis

This section discusses the potential air quality impacts associated with the proposed Project. Where there are potentially significant impacts, mitigation measures are proposed and the residual impact after mitigation is determined.

3.2.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on air quality if it would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors);

d) Expose sensitive receptors to substantial pollutant concentrations;

e) Create objectionable odors affecting a substantial amount of people.

Santa Barbara County Thresholds and Guidelines

Based on Appendix G of the CEQA Guidelines, the County has developed two criteria for determining if a project will have a potentially significant adverse air quality impact. If the project meets either of the two following criteria, the impacts must be discussed and analyzed in detail and appropriate mitigation measures must be identified. Specifically, the County has determined that a significant adverse impact may occur when a project, individually or cumulatively, triggers any one of the following:

- Interferes with progress towards the attainment of the O_3 standard by releasing emissions which equal or exceed the established long-term quantitative thresholds for NO_x and ROC;
- Equals or exceeds the State or Federal ambient air quality standards for any criteria pollutant (as determined by modeling);

The County also requires that cumulative air quality impacts and consistency with the policies and measures in the Air Quality Supplement of the Comprehensive Plan Land Use Element, other general plans, and the AQAP should be determined for all projects (i.e., whether the project exceeds the AQAP emission projections or growth assumptions). The County requires a discussion of the following issues as applicable to the project:

- Emissions which may affect sensitive receptors (e.g., children, elderly, or acutely ill);
- Toxic or hazardous air pollutants in amounts which may increase cancer risk for the affected population; or
- Odor or another air quality nuisance problem impacting a considerable number of people.

CEQA requires that the significance of a project's direct and indirect emissions be determined for both direct and indirect short-term (construction) and long-term (operational) impacts. To meet these CEQA requirements, the County's *Environmental Thresholds and Guidelines Manual* provides the following applicable thresholds/methodology for determining project impacts:

1. Short-term/Construction Emissions: Short-term air quality impacts generally occur during project construction (e.g., emissions from operation of equipment with internal combustion engines, fugitive dust from grading activities, application of paints). CEQA requires a discussion of the short-term impacts of a project in the environmental document. The reasoning for considering short-term impacts insignificant is provided below.

   No quantitative threshold has been established for short-term, construction-related PM_{10} (which is 50 percent of total dust). However, this impact should be discussed in all environmental documents for projects involving ground disturbance. Dust control measures are required under the County of Santa Barbara's Grading Ordinance for most projects. Some projects have the potential for construction-related dust to cause a nuisance. Also, Santa Barbara County violates the state standard for PM_{10}. Therefore, dust mitigation measures are required for all discretionary construction activities. The standard dust mitigation measures are based on policies in the 1979 AQAP and are listed in a separate implementation document, Air Quality Analysis for EIRs, available from the County Planning and Development Department (P&D).

   The short-term thresholds for NO_x and ROC emissions from construction equipment were not established. Emissions of NO_x from construction equipment in the county are estimated at 1,000 tons per year of NO_x. When compared to the total NO_x emission inventory for the county of approximately 17,000 tons per year, construction emissions comprise approximately 6 percent of the 1990 county-wide emission inventory for NO_x (Santa Barbara County 1993 Rate-of Progress Plan). In general, this amount is considered insignificant.

2. Long-term/Operational Emissions: Long-term air quality impacts occur during project operation and include emissions from any equipment or process used in the project (e.g., residential water heaters, engines, boilers, operations using paints or solvents) and motor vehicle emissions associated with the project. These emissions must be summed to determine the significance of the project's long-term impact on air quality.

a. Ozone Precursors (NO_x and ROCs). A proposed project will not have a significant air quality effect on the environment if the operation of the project will:

- Emit (from all project sources, mobile and stationary), less than the daily trigger for offsets set in the SBCAPCD New Source Review Rule for any pollutant (55 lbs/day for NO_x and ROC, and 80 lbs/day for PM_{10}); and
- Emit less than 25 lbs/day for NO_x or ROC from motor vehicle trips only; and
- Not cause or contribute to a violation of any CAAQS or NAAQS (except O_3); and
- Not exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board; and
- Be consistent with the adopted Federal and State Air Quality Plans.

b. Carbon Monoxide (CO). A project will have a significant air quality impact if it causes, by adding to the existing background CO levels, a carbon monoxide "hot spot" where the California one-hour standard of 20 ppm CO is exceeded. This typically occurs at severely congested intersections.

To determine whether a project would result in CO impacts, the County has established the following project screening criteria:

- If a project contributes fewer than 800 peak-hour trips, then CO modeling is not required.
- Projects contributing more than 800 peak hour trips to an existing congested intersection at a level of service (LOS) D or below, or will cause an intersection to reach LOS D or below, may be required to model for CO impacts. However, projects that will incorporate intersection modifications to ease traffic congestion, are not required to perform modeling to determine potential CO impacts.

3. Cumulative Impacts. Due to the county's non-attainment status for O_3[1] and the regional nature of the pollutant, if a project's total emissions of the O_3precursors, NO_x or ROCs, exceed the long-term threshold, then the project's cumulative impacts will be considered significant. For projects that do not have significant O_3 precursor emissions or localized pollutant impacts, emissions have been taken into account in the AQAP growth projections and therefore, cumulative impacts may be considered to be insignificant.

4. Consistency with the AQAP and Other Planning Documents. Consistency with local and regional plans, such as the AQAP, the Congestion Management Plan (CMP), and the RTP/SCS is required under CEQA. Consistency with the AQAP means that stationary and vehicle emissions associated with the project are accounted for in the AQAP's emissions growth assumptions. The AQAP generally relies on the land use and population projections provided in SBCAG's Regional Growth Forecast. Further, consistency with the Air Quality Supplement of the County's Land Use Element must also be analyzed.

In addition to the County's thresholds described above in this section, the SBCAPCD has prepared the Environmental Review Guidelines for the Santa Barbara County Air Pollution Control District (2015), which also lists screening criteria for determining the significance of long-term operational emissions.

[1] Effective January 1, 2024, Santa Barbara County's designation for State O_3 standard was changed from "nonattainment" to "nonattainment-transitional." An air district is designated nonattainment-transitional if, during a single calendar year, the state standard (0.07 ppm) is not exceeded more than three times at any one monitoring location within the District.

A proposed project would not have a significant air quality effect on the environment if the operation of the project would:

- Emit (from all project sources, mobile and stationary) less than the daily trigger for offsets or Air Quality Impact Analysis set in the SBCAPCD New Source Review Rule, for any pollutant (240 pounds/day for ROCs and NO_x; and 80 pounds/day for PM_{10}. There is no daily operational threshold for CO; it is an attainment pollutant); and
- Emit less than 25 pounds per day of NO_x or ROCs (ROGs or VOCs) from motor vehicle trips only; and
- Not cause or contribute to a violation of any CAAQS or NAAQS (except O_3); and
- Not exceed the SBCAPCD health risk public notification threshold adopted by the SBCAPCD Board; and
- Be consistent with the adopted Federal and State Air Quality Plans.

Similar to the County's thresholds described above for short-term/construction emissions, the SBCAPCD does not currently have quantitative thresholds of significance in place for short-term or construction emissions; however, the SBCAPCD uses 25 tons per year for ROCs (ROGs or VOCs) or NO_x as a guideline for determining the significance of construction impacts. Further, to assist Lead Agencies with determining whether the thresholds for vehicle-related emissions from project operations might be exceeded, SBCAPCD prepared a screening table that lists only the most common types of land uses and estimates the size of a specific project type that is expected to be less than the threshold of significance for NO_x and ROC emissions from vehicles. This screening table is presented in Attachment A of SBCAPCD's *Scope and Content for Air Quality Sections in Environmental Documents* (2022b).

Methodology

This analysis addresses the potential air quality impacts from potential emissions that may result from implementation of the proposed Project. Operational impacts refer to the ongoing activities of a project that contribute to emissions after construction activities conclude; these impacts are not discussed in this analysis as the Project does not involve any post-construction vehicle trips, energy demands, or area-source emissions. The information and analysis in this section are based on information from previous studies and EIRs prepared by the County of other local or regional agencies. These include the 2030 Draft Climate Action Plan and Draft Program EIR, as well as the County's CAP, Comprehensive Plan Land Use Element – Air Quality Supplement, and information from recent environmental documents prepared for the County. The discussion of air quality in the Project area is broadly derived from the above sources, as well as the SBCAPCD Ambient Air Monitoring Network and Air Quality Reports, the 2022 Ozone Plan, and the Environmental Review Guidelines for SBCAPCD. This section also utilizes data from the California Energy Commission (CEC) and the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.29. A detailed discussion of the approach to analysis is presented below.

Conflict with Applicable Air Quality Plan

Federal and State ambient air quality standards are designed to prevent the harmful effects of air pollutant emissions. These standards are continually updated based on evolving research, including research which relates air quality impacts with health effects. The 2022 Ozone Plan is the locally

applicable AQAP. At the regional level, the 2022 Ozone Plan works to ensure that the SCCAB reaches and maintains attainment with State standards for O_3. Locally, EIRs evaluate a plan or project's consistency with applicable policies identified in the Ozone Plan intended to protect human health. In addition to review of a project for consistency with the Ozone Plan, the County's *Environmental Thresholds and Guidelines Manual* requires that a project be analyzed for consistency with the Air Quality Supplement of the County Comprehensive Plan Land Use Element. The Air Quality Supplement identifies and provides land use planning measures that serve to reduce emissions generated from sprawling land use development and increases in the reliance of the automobile.

SBCAPCD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the SCCAB is in nonattainment of the NAAQS (e.g., O_3 and PM_{10}). The assessment of consistency with the 2022 Ozone Plan focuses on the potential for future growth facilitated by the proposed project to create or contribute to air quality violations and possibly delay air quality standards attainment. The 2022 Ozone Plan contains a comprehensive list of pollution control strategies directed at reducing O_3 and O_3 precursor emissions and achieving attainment with the NAAQS and CAAQS. These strategies are developed, in part, based on SBCAG's Regional Growth Forecast. Further, the SBCAPCD significance thresholds are health-protective and also serve to achieve attainment with the NAAQS and CAAQS within the SCCAB. Thus, projects, uses, and activities that are consistent with the assumed growth projections and control strategies assumed in the development of the Ozone Plan would not conflict with or obstruct implementation of the Ozone Plan, even if they exceed the SBCAPCD's numeric thresholds for criteria pollutants.

Cumulatively Considerable Net Increase in Criteria Pollutants

CEQA Guidelines Section 15130 requires that an EIR discuss cumulative impacts of a project when the project's incremental effects are cumulatively considerable. A "cumulative impact" is an impact that is created as a result of the combination of the proposed project together with other projects causing related impacts. "Cumulatively considerable" means that the incremental effects of the individual project are significant when viewed in connection with the effects of past projects, current projects, and probable future projects, which in this case includes growth within the county.

This analysis focuses on the air quality impacts that could occur from air pollutant emissions associated with the implementation of the proposed Project. Consistent with County and SBCAPCD guidance, this analysis evaluates the contribution of the proposed Project to cumulative air quality impacts by comparing the estimated emissions against the SBCAPCD's thresholds of significance defined above. As discussed below, the Project would generate short-term emissions from the operation of heavy construction equipment and construction-related vehicle trips during Project construction. Following construction, implementation of the proposed Project would generate only limited operational vehicle-source emissions during infrequent maintenance activities. Consistent with the County and SBCAPCD's recommended methodologies for performing air quality analysis, emissions that would be generated under the implementation of the proposed Project were estimated using the latest version of the CalEEMod (Version 2022.1.1.29). Calculation details are provided in the CalEEMod worksheet results in Appendix E.

Construction and Maintenance Air Quality Impacts

As described in Chapter 2, *Project Description*, the proposed Project involves the repair of an existing rock shoreline protection device located on an unnamed beach seaward of 25 residences in unincorporated Santa Barbara County. The repair would involve minor reworking of armor rock,

importing armor rock to fill existing voids, and correcting low-points and reduced width in the revetment crest. The proposed Project would also involve the removal of non-native vegetation and planting of native dune vegetation; to support the establishment of the new dune habitat, sand would also be imported and distributed along the extent of the swale. Finally, construction activities would also include the replacement of 11 of the 23 pre-existing private stairways that provide coastal access to the residential properties along Sand Point Road. The remaining 12 stairways would be demolished, and the areas would be restored with armor rock. Future construction activities would be limited to maintenance for the revetment; these activities are anticipated to occur every ten years or on an emergency, as-needed basis in response to severe storms or damage to the structure.

Therefore, to provide a reasonable, worst-case analysis of potential construction-related impacts of the proposed Project, an estimate of hypothetical construction-related emissions that could result from the repair of the shoreline protection device was developed (see Appendix E). Site-specific characteristics (i.e., Project area) were input into CalEEMod. The CalEEMod construction emissions estimates assume that the construction procedures associated with the proposed Project would comply with applicable SCAQMD and State rules (e.g., SCAQMD Rule 403 and SCAQMD Rule 1113). A separate model run for estimating future maintenance activities was not prepared, as future maintenance activities would involve a much lesser extent of construction activitiy and rock material import (5,000 tons of armor rock for maintenance vs. 15 tons of armor rock for construction). Construction activities and staging during these maintenance activities would be similar to those described or the initial repair, but are likely to require shorter construction durations.

In the absence of adopted quantified significance thresholds for short-term construction projects, the annual construction emissions are compared against the SBCAPCD's general guidance for determining the significance of construction impacts (25 tons per year for ROCs [ROGs or VOCs] or NO_x).

Health Risks from Criteria Air Pollutants

In December 2018, the California Supreme Court held that the EIR for the Friant Ranch Project – a 942-acre master-planned, mixed use development with over 2,500 senior dwelling units, 250,000 sf of commercial space, and extensive open space/recreational amenities on former agricultural land in north central Fresno County – was deficient in its informational discussion of air quality impacts as they relate to adverse human health effects.

As noted in the *Brief of Amicus Curiae* prepared by the SCAQMD in the Friant Ranch case (April 6, 2015), SCAQMD concluded that currently available regional modeling tools are not well suited to analyze relatively small changes in criteria pollutant concentrations associated with individual projects. Regional modeling tools developed by air districts throughout the state, including SBCAPCD, are generally designed to be used at the Federal, State, regional, and/or local levels and are not well-equipped to analyze whether and to what extent the criteria pollutant emissions of an individual project directly impact human health in a particular area. Even where an HRA can be prepared, however, the resulting maximum health risk value is only a calculation of risk – it does not necessarily mean anyone will contract cancer or non-cancer health risks as a result of the project. Though the *Brief of Amicus Curiae* was prepared by the SCAQMD, the SCAQMD maintains some of the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the state.

For local plans or projects that exceed any identified numerical threshold adopted by local agencies or air districts, EIRs typically identify and disclose generalized health effects of certain air pollutants

but are currently unable to establish a reliable connection between any local plan or an individual project and a particular health effect. In addition, no relevant agency has approved a quantitative method to reliably and meaningfully do so. Several factors contribute to this uncertainty, including the regional scope of air quality monitoring and planning, technological limitations for modeling at a local plan or project level, and the intrinsically complex nature of the relationship between air pollutants and health effects in conjunction with local environmental variables. Therefore, at the time, it is infeasible for this EIR to directly link the proposed Project's significant air quality impacts with a specific health effect. In addition, given that the proposed Project involves only short-term construction-related emissions that would result from reconstruction and maintenance of an existing rock revetment, the proposed Project does not involve the types of uses that generate long-term health risks (diesel particulate matter from large trucks, commercial freight vehicles, during operation). Thus, potential health risks from criteria air pollutants are anticipated to be minimal and impacts are considered insignificant.

Toxic Air Contaminants

SBCAPCD states that some classifications of projects are more likely than others to emit toxic pollutants. These may include commercial or industrial activities such as oil and gas processing, gasoline dispensing, dry cleaning, electronic and parts manufacturing, medical equipment sterilization, freeways, and rail yards that may increase the exposure to air pollution and associated cumulative risk should be considered (SBCAPCD 2022b). For projects that involve the generation of TACs, health risk assessment modeling may be required to determine the significance of impacts on nearby sensitive receptors. The significance threshold for long-term public health risk is set at 10 excess cancer cases in a million for cancer risk. For non-cancer risk, the significance level is set at a Hazard Index of more than one (1.0).

The greatest potential for TAC impacts associated with the proposed Project would be related to the use of diesel-fueled trucks and other vehicles during construction along high-volume freeways located near sensitive land uses. CARB recommended in 2005 to avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Recommendations also include avoiding siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yards and immediately downwind of ports (CARB 2005).

The proposed Project would not involve the development of any operational uses or sensitive land use types. Therefore, the proposed Project is not considered to result in potential for significant long-term health risks associated with TACs and impacts are considered insignificant.

Mobile-source CO Modeling

While the County and SBCAPCD have adopted thresholds for determining impacts from the generation of a CO "hot spot", SBCAPCD has concluded that due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with congested intersections are not expected to exceed the CO health-related air quality standards. Therefore, CO "hot spot" analyses are no longer required (SBCAPCD 2022b). As such, this EIR does not provide a detailed analysis of impacts associated with CO "hot spots", and impacts are considered insignificant.

3.2.4.2 Project Impacts

Table 3.3-4 provides a summary of the proposed Project's impacts related to air quality. A detailed discussion of each impact follows.

Table 3.3-4. Summary of Air Quality Impacts

Air Quality Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact AQ-1. The proposed Project could potentially be inconsistent with applicable air quality plans, including the 2022 Ozone Plan and County Comprehensive Plan, Land Use Element – Air Quality Supplement.	Insignificant	No mitigation required	Insignificant impacts
Impact AQ-2. The proposed Project could result in cumulatively considerable net increases of criteria air pollutants for which the region is in nonattainment under an applicable Federal or State ambient air quality standard.	Insignificant	No mitigation required	Insignificant impacts
Impact AQ-3. The proposed Project could expose sensitive receptors to substantial pollutant concentrations or toxic or hazardous air pollutants.	Insignificant	No mitigation required	Insignificant impacts
Impact AQ-4. The proposed Project could generate odors or other nuisance problems impacting a considerable number of people.	Insignificant	No mitigation required	Insignificant impacts
Cumulative Impacts	Insignificant	No mitigation required	Insignificant impacts

Impact AQ-1. The proposed Project could be inconsistent with applicable air quality plans, including the 2022 Ozone Plan and County Comprehensive Plan, Land Use Element – Air Quality Supplement.

The proposed Project would conflict with air quality plans if it would: release emissions which equal or exceed the established long-term quantitative thresholds for NO_x and ROC; release emissions that equal or exceeds the Federal or State ambient air quality standards for any criteria pollutant; release emissions which may affect sensitive receptors; increases the amount of toxic or hazardous air pollutants; and/or causes odor or other air quality issues that disrupt a considerable amount of people. Specifically, the 2022 Ozone Plan includes stationary-source control measures to be implemented through the SBCAPCD regulations; mobile-source control measures to be implemented through incentive programs and other activities; and transportation control measures to be implemented through transportation programs in cooperation with SBCAG, local governments, transit agencies, and others. The Air Quality Supplement of the County Comprehensive Plan Land Use Element identifies and provides land use planning measures that serve to reduce emissions generated from sprawling land use development and increase the reliance on the automobile. Policies and measures from the Land Use Element Air Quality Supplement generally include directing development to be located in existing urbanized areas, promoting infill and improving the jobs-to-housing balance, and promoting development that reduces auto dependency.

As discussed previously, the proposed Project would involve short-term construction activities to complete the repair and improvement of an existing shoreline protection device. Construction activities associated with the Proposed Action would involve the mobilization and demobilization at the Project site, hauling of imported armor rock, placement and reworking of existing and imported rock, dune vegetation enhancement, and stairway demolition and construction. The proposed Project would require a minimal amount of construction equipment (i.e., track-mounted long-reach

excavators, front-end loaders) and up to 2,752 haul truck and concrete truck trips to complete construction activities. Construction activities would result in only minor criteria pollutant emissions which would not exceed SBCAPCD recommended thresholds (see Impact AQ-2). Further, the proposed Project would not involve any long-term operational activities, outside of highly infrequent maintenance work (with lesser amounts of construction vehicles), which would generate regular criteria pollutant emissions. Thus, the proposed Project would not obstruct or be incompatible with the implementation of the O_3 and O_3 precursor emissions reduction goals and strategies of the Ozone Plan. Moreover, the proposed Project would not involve the construction of any new residential or non-residential development, or result in the change in land use and development assumptions, which would conflict with the underlying growth assumptions which inform the Ozone Plan.

Further, repairs to the revetment would extend its functional life and create more efficient protection for the coastal properties that line the beach, making the Project consistent with the applicable policies, goals, and measures of the Land Use Element-Air Quality Supplement. Therefore, the proposed Project would not conflict with applicable air quality plans and impacts would be *insignificant*.

Impact AQ-2. The proposed Project could result in cumulatively considerable net increase of criteria air pollutants for which the region is in nonattainment under an applicable Federal or State ambient air quality standard.

The proposed Project would require activities that could generate short-term construction related air pollutant emissions. Construction activities would generally involve five components: 1) mobilization and demolition; 2) hauling and importing armor rock to the Project site; 3) placement and reworking of imported and existing armor rock; 4) dune vegetation enhancement; and 5) demolition and construction of stairways. Construction activities would take place over approximately 6 to 7 months and works days would primarily occur between the hours of 7:00 A.M. and 7:00 P.M. Short-term increases in criteria pollutant emissions would result from all phases of construction activities, particularly due to the hauling of rocks and sand to the Project site and the operation of equipment such as track-mounted long-reach excavators, front-end loaders, haul trucks. Emissions from construction activities would include PM_{10} and exhaust emissions (ROCs, NO_x, CO, SO_2, $PM_{2.5}$). Future emissions would be limited to construction activities required for routine maintenance, which would be similar to those described or the initial repair, but are likely to require shorter construction durations and much lesser extent of rock material import and construction activity (i.e. much less construction vehicles).

As described in the *Methodology* discussion under Section 3.2.4.1, *Thresholds of Significance,* modeling of construction emissions was performed using CalEEMod. The estimated maximum annual construction emissions calculated for the Project are presented in Table 3.2-5 and are compared against SBCAPCD's recommended thresholds for characterizing impacts from short-term construction-related air pollutant emissions. As summarized in Table 3.2-5, the maximum annual construction-generated ROG and NO_X emissions for revetment repair activities would fall far below SBCAPCD's recommended thresholds of significance.

Table 3.2-5. Estimated Maximum Project Construction Emissions (tons/year)

	Pollutant					
	ROG (VOCs)	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Emissions (2027)	<0.1	0.2	0.3	<0.1	<0.1	<0.10
Emissions (2028)	<0.1	0.2	0.2	<0.1	<0.1	<0.1
Maximum	<0.1	0.2	0.3	<0.1	<0.1	<0.1
SBCAPCD Recommended Threshold	25	25	--	--	--	--
Exceed Threshold?	No	No	--	--	--	--

Source: Appendix E.

While SBCAPCD and the County do not have adopted thresholds for construction-related PM_{10} emissions (which is 50 percent of total dust), due to the county's designated nonattainment status for PM_{10}, SBCAPCD and the County require that any discretionary project involving ground disturbance discuss the Project's potential to generate PM_{10} emissions that could generate or contribute to a violation of Federal and State air quality standards. In addition, the generation of fugitive dust during construction could have the potential to generate a public nuisance (SBCAPCD Rule 303) and/or result in noncompliance with SBCAPCD's requirements and standards for visible dust (SBCAPCD Rule 345). However, the proposed Project involves only minor ground disturbances within sandy soils resulting from the removal of non-native vegetation and re-working of armor rock which would not result in substantial criteria pollutant or fugutive dust emissions. As such, the proposed Project is considered to result in *insignificant* impacts for short-term emissions from construction and no mitigation would be required.

Impact AQ-3. The proposed Project could expose sensitive receptors to substantial pollutant concentrations.

As discussed in Section 3.2.2.2, *Sensitive Receptors*, sensitive receptors include individuals with pre-existing health problems, those who are close to an emissions source, or those who are exposed to air pollutants for long periods of time, and the establishments that host these individuals. Examples of sensitive receptors include schools, hospitals, and convalescent homes because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Sensitive receptors that could be affected by the proposed Project would be the 25 private residences located along Sand Point Road and persons or families that utilize the beachfront for recreation. However, the proposed Project involves short-term construction on previously developed areas and would not result in any operational (long-term) emissions. As summarized in Impact AQ-2 above, Project construction and maintenance activities would result in negligible short-term criteria pollutant emissions from construction and maintenance. The proposed Project would not generate emissions that would substantially adversely affect local air quality or public health. As such, impacts to sensitive receptors would be considered *insignificant*.

Impact AQ-4. The proposed Project could generate odors or other nuisance problems impacting a considerable number of people.

According to CARB's CEQA Air Quality and Land Use Handbook (1993), objectionable odors are typically associated with industrial uses, some such as agricultural activities (e.g., farms and dairies),

refineries, wastewater treatment facilities, and landfills. The proposed Project would involve the repair of an existing rock revetment requiring short-term construction and maintenance activities which are not the types of uses or activities typically considered to generate nuisance odors perceptible to the general public. Construction that would occur as a result of the proposed Project would be both short-term and create minimal emissions; no operation emissions or long-term stationary activities would result as a part of the proposed Project. Any odors that may be generated would be localized and temporary in nature and would not affect a substantial number of people or result in a nuisance as defined by SBCAPCD Rule 303. Therefore, construction enabled under the proposed Project would not generate odors substantially perceptible by sensitive receptors and impacts associated with generation of objectionable odors would be *insignificant*.

3.2.4.3 Cumulative Impacts

Development of the proposed Project in conjunction with future projects could potentially result in a cumulative increase in construction-related and traffic-related air emissions, as well as onsite stationary sources of air pollution in the county. Based on County thresholds, a project would have a significant cumulative impact if it is inconsistent with the applicable adopted Federal and State air quality plans. As discussed in Impact AQ-1, the proposed Project would not conflict with the 2022 Ozone Plan or the County Comprehensive Plan, Land Use Element – Air Quality Supplement; therefore, it would not be cumulatively considerable under CEQA. Additionally, as discussed in Impact AQ-2, short-term emissions released as a result of construction activities would remain localized and would not exceed any significance thresholds. Therefore, the proposed Project's contribution to cumulative construction emissions impacts would be *insignificant*.

3.2.4.4 Proposed Mitigation

No mitigation measures are required.

3.2.4.5 Residual Impacts

Impact AQ-1. The proposed Project would be consistent with the overall goals and policies of the 2022 Ozone Plan and the County's Land Use Element-Air Quality, and impacts would be *insignificant*.

Impact AQ-2. The proposed Project would only result in short-term construction-related emissions; no operational emissions would occur. Emissions generated by the Project would not exceed any of the County's significant thresholds, and therefore impacts would be considered *insignificant*.

Impact AQ-3. The proposed Project would not generate substantial new emissions affecting sensitive receptors as construction activities would be for a short-duration and would not involve new development. Construction would be located away from most sensitive receptors, and would not generate substantial amounts of pollutants. Residual impacts would *be insignificant*.

Impact AQ-4. Construction occurring as a result of the proposed Project would not generate odors substantially perceptible by sensitive receptors and impacts associated with the generation of objectionable odors would be *insignificant*.

Section 3.3
Biological Resources

3.3.1 Introduction

This section describes the existing biological resources, assesses potential impacts to these resources that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and identifies mitigation measures to avoid and reduce these impacts. The information and analysis in this section is based on a review of previous studies and recent environmental documents prepared by the County of Santa Barbara (County) and past biological surveys conducted at properties along Sand Point Road between 2013 and 2024 (Althouse & Meade 2013, 2018, 2021; Storrer Environmental Services, LLC [SES] 2018, 2025). Information regarding special-status species potentially occurring in the area was obtained through the California Natural Diversity Data Base (CNDDB), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2025a), the Santa Barbara County Breeding Bird Study, and supplemented by previous biological surveys.

3.3.2 Environmental Setting

The approximately 3,700-foot-long rock revetment to be repaired/rebuilt is located seaward of the 25 single-family residential properties on Sand Point Road that are located between the Carpinteria Salt Marsh Preserve and the beach. The Project site extends the entire length of the shoreline protection, including the 1964 rock revetment, swale and splash wall, eastward from 867 San Point Road to the mouth of the Carpinteria Salt Marsh/Santa Monica Creek.

The sandy beach, coastal dunes, and Carpinteria Salt Marsh habitats in and around the Project site support numerous special-status plant and wildlife species (e.g., western snowy plover [*Charadrius nivosus nivosus*], Belding's savannah sparrow [*Passerculus sandwichensis beldingi*], light-footed Ridgeway's rail [*Rallus obsoletus levipes*], California legless lizard [*Anniella pulchra*], red sand verbena [*Abronia maritima*], salt marsh bird's beak [*Chloropyron maritimum* ssp. *maritimum*], Ventura marsh milk-vetch [*Astragalus pycnostachyus* var. *lanosissimus*], Coulter's goldfields [*Lasthenia glabrata* ssp. *coulteri*]) and are considered Environmentally Sensitive Habitat (ESH) by the County and California Coastal Commission (CCC). In addition, the Carpinteria Salt Marsh is U.S. Fish and Wildlife Service (USFWS)-designated critical habitat for Ventura marsh milk vetch, a federally listed and State-listed endangered plant species.

The dune habitat and sandy beach/upper intertidal zone along the Project site is degraded from the rock revetment itself and extensive ice plant (*Carpobrotus edulis*) mats and are regularly impacted by foot traffic and recreational uses from the adjacent residences. In many cases, the swale and seawall are essentially used as a backyard area for kayak/surf board storage, patio furniture, etc. and have a high level of human disturbance.

3.3.2.1 Climate, Topography, & Soils

The Carpinteria region experiences a Mediterranean climate with mild, moist winters and warm, dry summers. A heavy marine layer or fog is often present in late spring and early summer mornings. Temperatures at the Project site are relatively mild, with an average maximum temperature of 75 degrees Fahrenheit (°F) in August and September and an average minimum temperature of 40 °F in December and January (Western Reginal Climate Center [WRCC] 2025). Average annual precipitation is 17.20 inches, with the majority of that falling between October and April.

The terrain is relatively flat, ranging in elevation from 4 to 10 feet above mean sea level. The Carpinteria Salt Marsh is separated from the Project site by Sand Point Road and is approximately 8 feet lower in elevation. The fill material from the construction of Sand Point Road resulted in an 8- to 10-foot berm on the north side of the road and a 3- to 5-foot berm along the south side of the road. The mouth of the Carpinteria Salt Marsh/Santa Monica Creek outlets at the east end of Sand Point Road and the rock revetment. The remainder of the Project site is comprised of coastal strand (dune and sandy beach) and soils are classified as Beaches (BE), 1 to 5 percent slopes, derived from sandy or stony alluvium. The typical profile of this soil type consists of sand from 0 to 6 inches and coarse sand from 6 to 60 inches in depth (Natural Resources Conservation Service [NRCS] 2025). The soils in the adjacent Carpinteria Slough are listed as estuarine deposits comprised of organic-rich clays, silts, and sands (Moffatt & Nichol 2024).

3.3.2.2 Hydrology

The Project site is located within the approximately 140-mile-long Santa Barbara littoral cell that extends from the Santa Maria River (to the north) to roughly Point Mugu (to the south). The dominant direction of sediment transport along this portion of the coastline is from the north/west to the south/east and is considered to be mostly unidirectional (Moffatt & Nichol 2024). The east end of the Project site is located adjacent to the mouth of the Carpinteria Salt Marsh/Santa Monica Creek. There is no other hydrologic connection between the marsh and the beach along Sand Point Road.

The Carpinteria Salt Marsh is fed by three tributaries: Santa Monica Creek, Franklin Creek, and an unnamed tributary that outlet to the Pacific Ocean at the east end of the Project site. The channels in the marsh fill and ebb with the tides and are routinely maintained by the Santa Barbara County Public Works Department, Flood Control and Water Conservation District. Salt marsh wetlands north of Sand Point Road drain via sheet flow toward the tidal channels in the marsh.

The tidal non-wetland waters of the U.S. (i.e., intertidal zone and subtidal channel) surrounding the Project site are jurisdictional under current Federal and State guidelines and are considered to meet the criteria of ESH due to their biological productivity and importance to species survival (County of Santa Barbara 2019). The intertidal zone encompasses portions of the estuary and coastline that occur between high and low tide. This habitat changes constantly due to varying levels of inundation, fluctuating tides, and exposure to physical wave action, leaving the sand essentially devoid of vegetation.

3.3.2.3 Vegetation, Sensitive Habitat, and Land Uses

Vegetation communities and land uses in the Project Site are summarized in Table 3.3-1 and described below. Vegetation communities and land uses were mapped by SES on May 18, 2024 based on field

observations and aerial imagery analysis. The surveyed area supports 1.03 acres of dune mat and 7.60 acres of beach/bare sand vegetation and land use types, both of which are characterized as ESH. The remaining 4.80 acres of the surveyed area supports non-native vegetation in the form of 3.54 acres of ice plant, 1.26 acres of ornamental plants and landscaping around the single-family residences, and 2.7 acres of existing bare rock revetment.

Table 3.3-1. Summary of Vegetation, Sensitive Habitat, and Land Uses

Vegetation Alliance/Habitat/ Land Use Type[1]	Vegetation Association[1]	Listing Status/ Rarity Ranking/ Invasive Species Rank[6]	Acreage in Survey Area
Environmentally Sensitive Habitat (ESH)			
Dune Mat *Abronia latifolia – Ambrosia chamissonis* Herbaceous Alliance	*Ambrosia chamissonis - Abronia maritima - Cakile maritima*	Protected by County & Coastal Commission Policies S3, G3	1.04 acres
Invasive/Non-native Vegetation			
Ice Plant Mats *Mesembryanthemum* spp. – *Carpobrotus* spp. Herbaceous Semi-natural Alliance	*Carpobrotus (edulis)*	SNA, GNA/ Cal-IPC High	3.54 acres
Ornamental Plants/Landscaping[2]	NA	NA	1.92 acres
Other Land Uses			
Sandy Beach/Intertidal[3]	NA	NA	6.52 acres
Bare Sand[4]	NA	NA	0.32 acres
Rock Revetment	NA	NA	2.69 acres
Paved Accessways[5]	NA	NA	0.09-acre
		Total:	16.13 acres

Notes:

[1] Vegetation Alliances and Associations follow *A Manual of California Vegetation Online* (MV-II) (CNPS 2025b), where applicable.

[2] Not a recognized community in MV-II.

[3] The area of sandy beach/intertidal habitat was calculated based on what was present above the mean high tide line at the time of the survey and in aerial imagery. This area is constantly changing due to erosion and accretion of sand with the tides. There is no natural rocky intertidal habitat and there is no vegetation present on the beach.

[4] Represents areas between residences and the rock revetment that are devoid of vegetation.

[5] Includes the beach access ramp at the west end of the Survey Area and the easternmost end of Sand Point Road.

[6] Listing Status/ Rarity Ranking/ Invasive Species Ranking Notes:

Global/State rarity rankings follow the California Department of Fish and Wildlife (CDFW) California Natural Communities List (CDFW 2025a):

G3/S3 – Vulnerable. At moderate risk of extinction due to a restricted range, relatively few populations.

GNA/SNA – Not Applicable.

California Invasive Plant Council (Cal-IPC) Invasive Species Rating (Cal-IPC 2025):

High – Species that have severe ecological impacts.

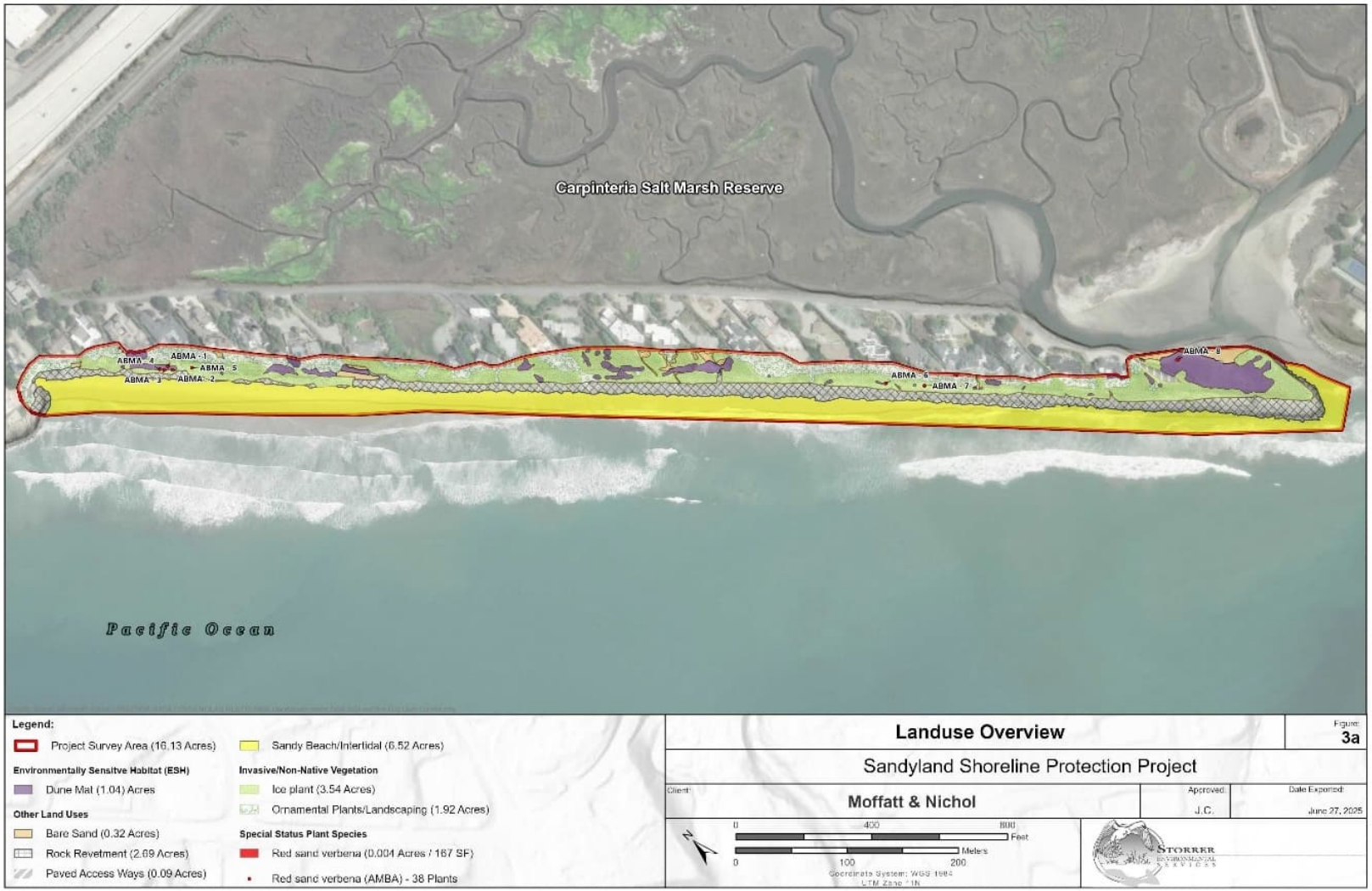


Figure 3.3-1. Vegetation and Land Use Overview

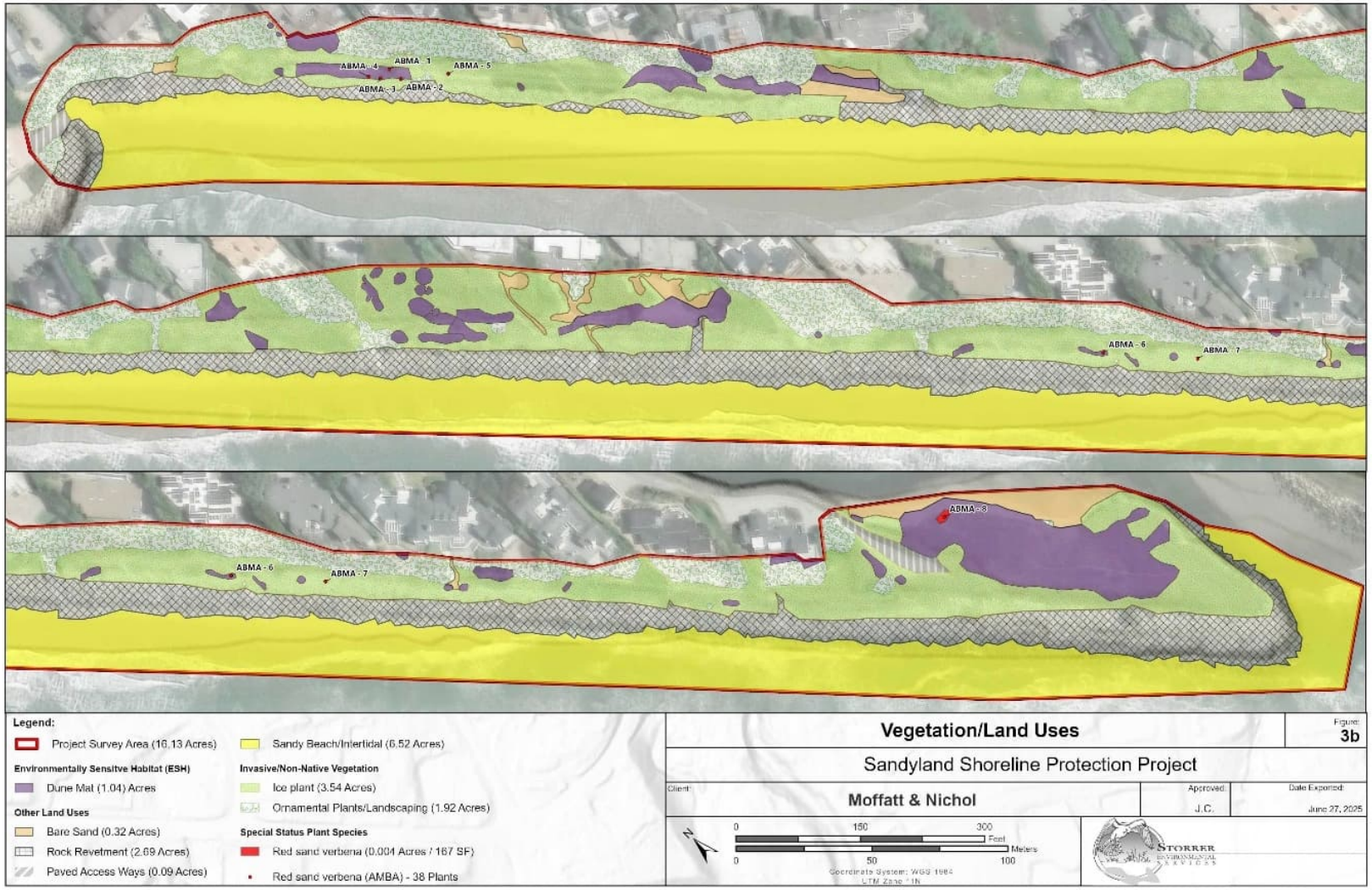


Figure 3.3-2. Vegetation and Land Use Overview

Dune Mat (*Abronia latifolia – Ambrosia chamissonis* Herbaceous Alliance)

There is approximately 1.03 acres of native dune mat vegetation in backyards of the residences along Sand Point Road, on the splash wall/revetment and in the swale between the splash wall and the revetment. Dune mat plant communities are considered ESH by the County/CCC and are protected by County's Coastal Land Use Plan (CLUP) policies.



Invasive ice plant mats (shown above) will be removed and the dune habitat will be restored/enhanced as part of the Project. Photograph courtesy of SES.

Dune mat vegetation is dominated by two native dune species, beach bur sage (*Ambrosia chamissonis*) and beach evening primrose (*Camissoniopsis cheiranthifolia* ssp. *cheiranthifolia*). Other native plant species in this community include alkali heath (*Frankenia salina*), pickleweed (*Salicornia pacifica*), salt heliotrope (*Heliotropium curassavicum*), big saltbush (*Atriplex lentiformis*), coastal bush lupine (*Lupinus arboreus*), sea cliff buckwheat (*Eriogonum parviflorum*), salt grass (*Distichlis spicata*), lemonade berry (*Rhus integrifolia*), coyote brush (*Baccharis pilularis* var. *consanguinea*), coastal goldenbush (*Isocoma menziesii* var. *menziesii*), and telegraph weed (*Heterotheca grandiflora*). One special-status plant species, red sand verbena (*Abronia maritima*), is present throughout the dune mat plant community (refer to Figures 3.3-1 and 3.3-2).

Non-native and invasive plant species scattered in the dune mat vegetation include sea rocket (*Cakile maritima*), sea fig/iceplant (*Carpobrotus chilensis* and *C. edulis*), ripgut brome (*Bromus diandrus*), European beachgrass (*Ammophila arenaria*), bur clover (*Medicago polymorpha*), annual sweet clover (*Melilotus indicus*), Bermuda grass (*Cynodon dactylon*), rabbit's foot grass (*Polypogon monspeliensis*), fountain grass (*Pennisetum setaceum*), and pampas grass (*Cortaderia jubata*).

Ice Plant Mats (*Mesembryanthemum* spp. – *Carpobrotus* spp. Herbaceous Semi-natural Alliance)

The majority of vegetation cover in the surveyed area consists of ice plant mats (3.54 acres), dominated by a mix of ice plant (*Carpobrotus edulis*) and sea fig (*C. chilensis*), both of which are considered to be moderately to highly invasive by the California Invasive Plant Council (California Invasive Plant Council [Cal-IPC] 2025). The ice plant mats in the Project area also contain occurrences of two other invasive ice plant species (*Drosanthemum floribundum* and *Malephora crocea*) as well as of many of the non-native/invasive plant species scattered in the dune mat described above (e.g., sea rocket, European beachgrass, ripgut brome, etc.).

Ornamental Plants/Landscaping

Ornamental plant species and landscaping are present in the backyards of the existing residences, along the revetment, and within the swale. This vegetation type consists of species not native to the

region that have been planted and/or exotic species that typically don't occur in the natural landscape outside of urban areas. Ornamental and landscape species that are frequent in the surveyed area include Ngaio tree (*Myoporum laetum*), crimson bottlebrush (*Callistemon citrinus*), statice (*Limonium sinuatum*), lavender (*Lavandula* sp.), rosemary (*Salvia rosmarinus*), Mexican bush sage (*S. leucantha*), Chinese juniper (*Juniperus chinensis*), creeping juniper (*J. horizontalis*), prostrate cape weed (*Arcotheca prostrata*), garden pelargonium (*Pelargonium* x *hortorum*), red escallonia (*Escallonia rubra*), African daisy (*Dimorphotheca sinuata*), and Mexican feathergrass (*Nasella tenuissima*).

Sandy Beach/Intertidal

The upper intertidal habitat within the Project site consists of sandy beach and the rock revetment. There is no natural rocky intertidal habitat along Sandyland near the Project site and there is no vegetation present on the beach south of the rock revetment.

The sandy beach/intertidal zone is a dynamic environment influenced in part by daily tidal fluctuations (leading to high concentrations of sunlight, and periods of aerial exposure) and wave forces. The area of sandy beach/intertidal habitat in the Project site changes constantly with erosion and accretion of sand with the tides. Organisms residing within the intertidal zone are characterized by hardy species that are capable of withstanding stresses associated with waves and daily tidal fluxes. Due to the seasonal deposition and retreat of sand from the beach, relatively few specialized species live in the dynamic sand habitat within the Project site. Commonly documented species include crustaceans such as sand crab (*Emerita analoga*), arthropods, polychaetes, and mollusks. The sandy beach/intertidal zone along the existing rock revetment is not considered to meet the criteria of ESH because there is no coastal strand/dune mat vegetation present and the beach/intertidal zone is not used as a marine mammal rookery/hauling ground.

Bare Sand and Rock Revetment

The rock revetment and areas devoid of vegetation (i.e., bare sand) between the rock revetment and the residences represent approximately 3 acres of the surveyed area. The open sandy areas at the Project site are regularly disturbed by foot traffic and used for recreational uses (e.g., kayak/surf board storage, patio furniture, etc.) by the adjacent residences.

3.3.2.4 Wildlife Habitat

Field surveys and review of relevant studies along Sand Point Road and in the Carpinteria Salt Marsh enabled a characterization of habitat quality and assessment of potential for occurrence of special-status wildlife species (e.g., western snowy plover, Belding's savannah sparrow, light-footed Ridgway's rail [*Rallus obsoletus levipes*], California legless lizard, sandy beach tiger beetle [*Cicindela hirticollis gravida*], globose dune beetle [*Coelus globosus*], burrowing owl [*Athene cunicularia*], etc.) in the Project area.



Looking west at the sandy beach and existing rock revetment. Photograph courtesy of SES.

The native dune mat and sandy beach habitats available for terrestrial wildlife and sensitive invertebrates in the Project site are degraded due to the introduction of invasive plant species (i.e., ice plant, ornamentals), the presence of the existing rock revetment, and human activity associated with residential backyards and 23 coastal access pathways/stairs. However, coastal strand habitat is important resource for shorebirds, including western snowy plover, which forage extensively within the intertidal and among the wrack for invertebrate fauna. In and around the Project area, shorebirds, marine birds, and to a lesser extent, land birds are especially abundant in fall and winter (County of Santa Barbara2013). Further, though a rare occurrence, burrowing owls are known to overwinter in the region and infrequently use the crevices in the rock revetment at the Project site for overwintering (Appendix F).

Table 3.3-2. Bird Species Documented in the Project Site

Common Name	Scientific Name
American crow	*Corvus brachyrhynchos*
Anna's hummingbird	*Calypte anna*
Black phoebe	*Sayornis nigricans*
Brown pelican	*Pelecanus occidentalis*
Burrowing owl	*Athene cunicularia*
Bushtit	*Psaltriparus minimus*
California towhee	*Pipilo crissalis*
Canada goose	*Branta canadensis*
Caspian tern	*Hydroprogne caspia*
Dark-eyed Junco	*Junco hyemalis*
Double-crested Cormorant	*Nannopterum auritum*
Eurasian collared-dove	*Streptopelia decaocto*
Great blue heron	*Ardea herodias*
Great egret	*Ardea alba*
Green heron	*Butorides virescens*
Heermann's gull	*Larus heermanni*
House finch	*Carpodacus mexicanus*
Long-billed Curlew	*Numenius americanus*
Mallard	*Anas platyrhynchos*
Northern mockingbird	*Mimus polyglottos*
Osprey	*Pandion haliaetus*
Snowy egret	*Egretta thula*
Song sparrow	*Melospiza melodia*
Spotted sandpiper	*Actitis macularius*
Turkey vulture	*Cathartes aura*
Virginia rail	*Rallus limicola*
Western gull	*Larus occidentalis*
Western snowy plover[1]	*Charadrius alexandrinus nivosus*
Whimbrel	*Numenius phaeopus*
Willet	*Tringa semipalmata*

Note: [1]Western snowy plover is designated as federally threatened by USFWS and is considered a Species of Special Concern by the CDFW.

The fauna of sandy beaches are characterized by invertebrate species that live on or in the sand. These include beach hoppers (*Orchestoidea* spp.), sand crabs (*Emerita analoga*), and bloodworms (*Euzonus mucronata*) with other burrowing worms also present. Kelp flies (Diptera) are typically abundant, especially associated with the wrack (County of Santa Barbara 2013). Due to the frequently shifting sands, organisms inhabiting this environment are mobile and well adapted to the changing conditions.

Fish

California grunion (*Leuresthes tenuis*) are small, silvery fish found only along the coast of Southern California and northern Baja California. Unlike other fish, grunion come completely out of the water to lay their eggs in the wet sand of the beach. Grunion make these excursions only on particular nights and with such regularity that the time of their arrival on the beach can be predicted a year in advance (California Department of Fish and Wildlife [CDFW] 2025b). California grunion are protected from coastal development/impacts during their spawning period from March 1 to August 31. The CCC and the U.S. Army Corps of Engineers (USACE) often requires pre-construction grunion surveys and a Grunion Monitoring & Avoidance Plan for coastal development projects.

It is reported that grunion routinely used the beach along Sand Point Road, prior to construction of the rock revetment (T. Robinson pers. comm. 2025). Grunion runs have occurred at Carpinteria State Beach in the last five years, but there is limited suitable intertidal habitat near the Project site for egg laying because of existing shoreline protection.

Marine Mammals

The sandy beach does not provide essential feeding or breeding habitat for any marine mammal species that may be present near the Project site. Pinniped species such as sea lions and harbor seals have the greatest potential to occur in the vicinity of the Project site. These pinniped species have the potential to haul out on the beach near in front of the Project site, but occurrences would be transient.

3.3.2.5 Special-status Plant and Wildlife Species

A list of special-status plant and wildlife species that could potentially occur in the Project site was developed based on review of the CNDDB, CNPS Inventory of Rare and Endangered Plant Species, Santa Barbara County Breeding Bird Study, and previous studies conducted in the vicinity of the Project.

Special-status Plants

Twelve special-status plant species are documented (i.e., tracked by the CNDDB) within the vicinity of the Project site (i.e., surrounding U.S. Geological Survey [USGS] Carpinteria 7.5 minute quadrangle). Species dependent on inland or riparian habitats (e.g., late-flowered mariposa lily [*Calochortus fimbriatus*], Palmer's mariposa lily [*Calochortus palmeri* var. *palmeri*], umbrella larkspur [Delphinium *umbraculorum*], Ojai fritillary [*Fritillaria ojaiensis*], Santa Barbara honeysuckle [*Lonicera subspicata* var. *subspicata*], white-veined monardella [*Monardella hypoleuca* ssp. *Hypoleuca*], Nuttall's scrub oak [*Quercus dumosa*], Sonoran maiden fern [*Pelazoneuron puberulum* var. *sonorense*]) are excluded from consideration due to the lack of suitable habitat in the Project site. Special-status plants that have a reasonable possibility to occur in the Project Site based on habitat suitability were evaluated.

Table 3.3-3. Special-Status Plant Species Occurring in the Vicinity of the Project Site

Common Name *Scientific Name*	Listing Status	Suitable Habitat Present in Project Site?	Likelihood for Occurrence
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1	No	**Not Expected to Occur.** Suitable habitat for Coulter's goldfields is present in the Carpinteria Salt Marsh and this species was historically known to occur in the marsh, but populations are believed to be extirpated (CNDDB 2025). Coulter's goldfields is not expected to occur in the dune/beach habitats where Project impacts will occur.
Coulter's saltbush *Atriplex coulteri*	CRPR 1B.2	Yes	**Not Expected to Occur.** Suitable coastal dune habitat is present in the Survey Area. This species is known to occur in Carpinteria along the coastal bluffs (CNDDB 2025). Coulter's saltbush is a shrub species that would have been blooming during 2024 field survey. This species was not observed and is not expected to occur in the Project Site.
Red sand verbena (*Abronia maritima*)	CRPR 4.2	Yes	**Documented.** Thirty-eight red sand verbena plants are present in the dune mat vegetation along the revetment/swale and were mapped during the May 2024 survey.
Salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*)	CRPR 1B.2	No	**Not Expected to Occur.** Salt marsh bird's beak is known to occur in Carpinteria Salt Marsh, northeast of the Project Site (CNDDB 2025). Salt marsh bird's beak was not observed in the Project Site and is not expected to occur in the dune/beach habitats where Project impacts will occur.
Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*)	FE, SE CRPR 1B.1	No	**Not Expected to Occur.** Carpinteria Salt Marsh is USFWS-designated critical habitat for Ventura marsh milk-vetch. No *Astragalus* spp. plants were observed during the May 2024 survey and this species is not expected to occur in the dune/beach habitats where Project impacts will occur.

Notes:
FE – Federally listed Endangered
SE – State listed Endangered
CRPR Ranking
1B – Rare, threatened, or endangered in CA and elsewhere
4 – Plants of limited distribution
0.1 – Seriously endangered in California
0.2 – Fairly endangered in California

Red sand verbena (*Abronia maritima*) (*CRPR 4.2*). Red sand verbena, also referred to as "sticky sand verbena," is a densely glandular hairy, perennial herb that forms mats along coastal dunes. This species has wine-red flowers and blooms between February and October. Red sand verbena is considered a "watch list" species, uncommon in California and fairly endangered by the CNPS, but can be locally abundant where it occurs. Red sand verbena is primarily found in coastal dunes from San Luis Obispo County south to Baja California. Eight occurrences of red sand verbena plants (38 plants total) were found throughout the dune mat habitat in and around the Project site (refer to Figure 3.3-1 and Figure 3.3-2; see Table 3.3-4).



Red sand verbena in bloom in the Project Site on May 18, 2024. Photograph courtesy of SES.

Table 3.3-4. Special-status Plant Species Observed in the Project Site

Special-status species code-occurrence number	Number of Plants	Latitude	Longitude
Red Sand Verbena (ABMA)			
ABMA-1	1	34.403799	-119.545271
ABMA-2	4	34.403749	-119.545266
ABMA-3	1	34.403798	-119.545322
ABMA-4	1	34.403831	-119.54535
ABMA-5	1	34.403648	-119.545118
ABMA-6	3	34.399553	-119.540487
ABMA-7	2	34.399316	-119.540239
ABMA-8	25	34.398001	-119.538321
Total Plants Observed:	38		

Special-status Wildlife

Nineteen special-status wildlife species are documented (i.e., tracked by the CNDDB or Santa Barbara County Breeding Bird Study) within the vicinity of the Project site (i.e., surrounding USGS Carpinteria 7.5 minute quadrangle). Species dependent on inland or riparian habitats (e.g., least bell's vireo [*Vireo bellii pusillus*], Townsend's big-eared bat [*Corynorhinus townsendii*], and Coast patch-nosed snake [*Salvadora hexalepis virgultea*]) or perennial fresh water sources or vernal pools (e.g., arroyo toad [*Anaxyrus californicus*], foothill yellow-legged frog [*Rana boylii*], California red-legged frog [*Rana draytonii*], and two-striped garter snake [*Thamnophis hammondii*]) are excluded from consideration due to the lack of suitable habitat in the Project site. One federally threatened species, western snowy plover, has been documented at the Project site and several other special-status wildlife species could potentially occur based on available habitat and nearly documented occurrences (see Table 3.3-5).

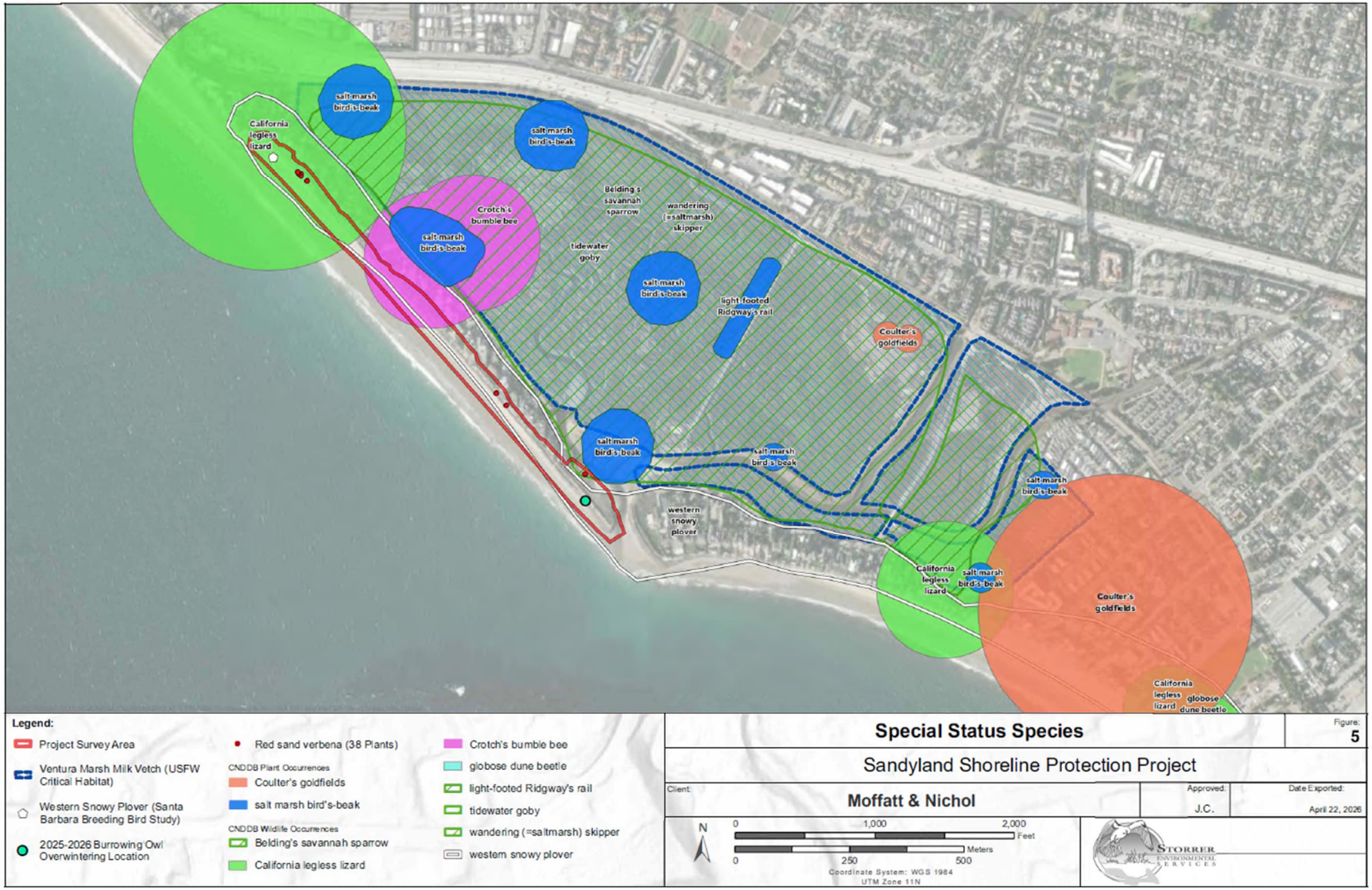


Figure 3.3-3. Special-status Species and Critical Habitat

Table 3.3-5. Special-Status Wildlife Species Occurring in the Vicinity of the Project Site

Common Name ***Scientific Name***	Listing Status	Suitable Habitat Present in the Project Site?	Likelihood for Occurrence within Survey Area
Invertebrates			
Crotch's bumble bee *(Bombus crotchii)*	SC	No	Low. Occurrences of Crotch's bumble bee were documented in the Carpinteria Salt Marsh in 2017 and 2019 (CNDDB 2025). This species may be present in the Project site on a transitory basis or for foraging, but suitable nesting habitat is not present on the dune/beach areas where potential impacts would occur.
Globose dune beetle (*Coelus globosus*)	SA	Yes	Low. One population of globose dune beetle has been documented in Carpinteria, mapped along the beach east of the Survey Area (CNDDB 2025). The dune habitat in the Project Site is marginal due to the existing shoreline protection essentially eliminating the foredune. Human activity along the revetment and in residential backyards also reduces habitat value for this species.
Monarch butterfly (*Danaus Plexippus*) (California overwintering population)	SA	No	Not Expected to Occur. Suitable protected eucalyptus, Monterey pine, or cypress groves that would support Monarch aggregations are not present in the Project site. The nearest known over-wintering site is along Carpinteria Creek, approximately 1 mile southwest of the Project site (CNDDB 2025). This species is not expected to roost in the Project site but may be present on a transitory basis while foraging.
Sandy beach tiger beetle (*Cicindela hirticollis gravida*)	SA	Yes	Low. One historical location of sandy beach tiger beetle is documented in Carpinteria, east of the Survey Area, which is now believed to be extirpated (CNDDB 2025). Sand south of the shoreline protection in the Survey Area is regularly impacted by wave action and there is little to no dry sand in the upper intertidal zone to support this species. The presence of sandy beach tiger beetle in the Project site is considered unlikely due to a lack of suitable microhabitat and impacts from wave/human activity.

Table 3.3-5. Special-Status Wildlife Species Occurring in the Vicinity of the Project Site (Continued)

Common Name ***Scientific Name***	Listing Status	Suitable Habitat Present in the Project Site?	Likelihood for Occurrence within Survey Area
Wandering (= saltmarsh) skipper (*Panoquina errans*)	SA	Yes	Not Expected to Occur. Four female wandering skippers were documented in the Carpinteria Salt Marsh in 2007 (CNDDB 2025). Small patches of salt grass and alkali heath in the Survey Area provide limited resources for wandering skipper larvae; adults of this species are not expected to occur in the habitats that would be impacted by the proposed Project. . Wandering skipper was not detected during invertebrate surveys conducted at 501 Sand Point Road at the east end of the Project site in 2017, 2018, and 2020 (Althouse & Meade 2021). Wandering skipper is not expected to be affected by the Project.
Fish			
Southern California Steelhead DPS (*Oncorhynchus mykiss irideus* pop. 10)	FE SC	No	Not expected to occur. Southern California steelhead historically entered Carpinteria Salt Marsh to spawn in Santa Monica Creek, but stream alterations have impeded access to upstream spawning sites. The proposed Project would not impact the mouth of Santa Monica Creek or the Carpinteria Salt Marsh and steelhead are not expected in the Project site.
Tidewater goby (*Eucyclogobius newberryi*)	FE SSC	No	Not expected to occur. Historically, tidewater goby was documented in the Carpinteria Salt Marsh but was last seen in the marsh in 1984 (CNDDB 2025). Tidewater goby was not observed during 2017, 2018, 2020 surveys (Althouse & Meade 2021) or during May 2024 field surveys. The proposed Project would not impact the mouth of Santa Monica Creek or the Carpinteria Salt Marsh and tidewater goby are not expected in the Project site.
Birds			
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	SE MTBA	No	Not expected to occur. Belding's savannah sparrows are known to breed in the Carpinteria Salt Marsh (CNDDB 2025; Audubon-CCBER 2025). This species could be found foraging in and around revetment or shoreline. But the dune/beach areas around the Project site do not provide suitable nesting habitat for Belding's savannah sparrow. Although nesting occurs nearby, this species would not be expected to nest in the Project site where impacts would occur.

Table 3.3-5. Special-Status Wildlife Species Occurring in the Vicinity of the Project Site (Continued)

Common Name ***Scientific Name***	Listing Status	Suitable Habitat Present in the Project Site?	Likelihood for Occurrence within Survey Area
Light-footed Ridgway's rail (*Rallus obsoletus levipes*)	FE, SE, FP MTBA	No	Not expected to occur. The known population of light-footed Ridgway's rail in Carpinteria Salt Marsh is thought to be extirpated (CNDDB 2025). Suitable marsh habitat for this species is not present in the Project site and nesting would not be expected in the dune/beach areas where Project impacts would occur.
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, SSC MBTA	Yes	Low. Two fledgling western snowy plover chicks were observed on the beach at the west end of the Survey Area on May 21, 2013 (Record No. 6291) (Audubon-CCBER 2025). A historical breeding location was also documented in Carpinteria in 1946 but is believed to be extirpated since 1978. This species may use the shoreline in the Project site for foraging but nesting habitat is marginal.
Burrowing owl (*Athene cunicularia*)	SC, SSC, MBTA	Yes	Observed; Moderate. One adult/juvenile burrowing owl was observed at the eastern end of the rock revetment at the terminus of Sand Point Road on December 7, 2025. The burrowing owl was seen perched on the revetment at dawn and dusk consistently through December, January, and February. It was last observed on February 26, 2026 (CNDDB, Gaede 2026).
Reptiles			
California legless lizard (*Anniella* sp.)	SSC	Yes	Low. Two occurrences of California legless lizard are documented on the east and west side of the Carpinteria Salt Marsh (CNDDB 2025). Suitable beach dune habitat with sparse vegetation is present in the Project site; however, the population of California legless lizard near the revetment is thought to be extirpated (CNDDB 2025). California legless lizard has a low likelihood of occurrence in the dune habitat that would be impacted by the proposed Project.

Notes:
Federal Status:
FE – Federally listed Endangered
FT – Federally listed Threatened
MTBA – Migratory Bird Treaty Act
State Status:
SE – State listed Endangered
SC – State Candidate Species
SA – State Special Animal
FP – CDFW Fully Protected Species
SSC – CDFW Species of Special Concern

No special-status wildlife species were observed in the Project site during the May 2024 field survey or during previous surveys conducted along Sand Point Road from 2013-2021 (Althouse & Meade 2013, 2018, 2021; SES 2018, 2025). One adult/juvenile burrowing owl was observed in the Survey Area at the eastern end of the rock revetment at the terminus of Sand Point Road on December 7, 2025. Burrowing owl is discussed in more detail below.

Special-status wildlife species that have a low potential to occur at the Project site based on presence of suitable habitat and/or documented occurrences in the vicinity include western snowy plover, California legless lizard, sandy beach tiger beetle, and globose dune beetle. Documented occurrences of burrowing owls exist at the Project site and surrounding area, and suitable foraging habitat and burrow sites are also present at the Project site. The narratives below describe each species' habitat preferences, distribution, and key characteristics.

The Project site lacks suitable salt marsh/nesting habitat that would support special-status species known to occur in the nearby Carpinteria Salt Marsh (i.e., Belding's savannah sparrow, light-footed Ridgway's rail, Crotch's bumble bee [*Bombus crotchii*], wandering [saltmarsh] skipper [*Panoquina errans*]).

Western Snowy Plover (*Charadrius alexandrinus nivosus*) (FT, SSC, MBTA)

Western snowy plover is a shorebird species that is designated as federally threatened and is considered a Species of Special Concern by the CDFW. This species nests above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Two fledgling western snowy plover chicks were observed on the beach at the west end of the Project site on May 21, 2013 (Record No. 6291) (Audubon-CCBER 2025). A historical breeding location was also documented in Carpinteria in 1946 but is believed to be extirpated since 1978 (CNDDB 2025). Western snowy plovers may use the shoreline in the Project site for foraging, but nesting habitat is marginal due to the lack of foredune habitat and high levels of human disturbance from the residences landward of the rock revetment.





Western snowy plover (shown above) and California legless lizard (shown below) have a low potential to occur in the Project site. Photographs courtesy of SES.

California legless lizard (*Anniella* spp.) (SSC)

California legless lizard is listed as a Species of Special Concern by CDFW. California legless lizard occurs in friable soils in a variety of habitats including coastal dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks (California Herps 2025). Adapted to subterranean life, legless lizards thrive near native coastal shrubs that produce an abundance of leaf litter and associated invertebrate prey. Leaf litter under trees and bushes in sunny areas and dunes stabilized

with bush lupine and mock heather often indicate suitable habitat. However, a population of legless lizard was discovered in dunes covered with ice plant mats at McGrath's State Beach in Oxnard in 2019 (Althouse & Meade 2021).

Two occurrences of California legless lizard from the 1940s are documented on the east and west side of the Carpinteria Salt Marsh (CNDDB 2025). The population of California legless lizard near Sandyland is thought to be extirpated, but suitable coastal dune habitat with sparse vegetation is present in the Project Site. Due to the historical presence of California legless lizard in Carpinteria and the presence of ice plant mat, the Project Site could support legless lizard. Coverboard surveys for legless lizard were conducted at 501 Sand Point Road at the east end of the Project Site in 2017, 2018, 2019, and 2020 and legless lizards were not detected (Althouse & Meade 2021). California legless lizard has a low likelihood of occurring in the Project site.

Sandy beach tiger beetle (*Cicindela hirticollis gravida*) (SA)

Sandy beach tiger beetle is listed as a State Special Animal by CDFW. This species typically inhabits sand dunes adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Sandy beach tiger beetles prefer clean, dry, light-colored sand in the upper intertidal zone and subterranean larvae prefer to burrow into moist sand not affected by wave action. This species is known to be sensitive to contact with humans (CNDDB 2025) and would likely avoid areas with heavy foot traffic and regular disturbance.

One historical occurrence of sandy beach tiger beetle is documented from 1979 at Carpinteria State Beach, east of the Survey Area, which is now believed to be extirpated (CNDDB 2025). The sandy beach south of the shoreline protection in the Project site is regularly impacted by wave action and there is little to no dry sand in the upper intertidal zone to support this species. The dune habitat in the Project site is along the beach and has sandy soil, yet it has frequent human activity and has been heavily modified. No sandy beach tiger beetles were observed during invertebrate surveys conducted at 501 Sand Point Road at the east end of the Survey Area in 2017, 2018, and 2020 (Althouse & Meade 2021). The presence of sandy beach tiger beetle in the Project site is considered unlikely due to a lack of suitable microhabitat and impacts from wave/human activity.

Globose dune beetle (*Coelus globosus*) (SA)

Globose dune beetle is listed as a State Special Animal and is erratically distributed in coastal sand dune habitat from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Globose dune beetles inhabit foredunes and sand hummocks, burrowing beneath the sand surface and are most commonly found beneath dune vegetation.

A 1934 population of globose dune beetle documented at Carpinteria State Beach, mapped along the beach in foredunes east of the Project site, was believed to be extant as of 2007 (CNDDB 2025). The dune habitat in the Project site is marginal due to the shoreline protection essentially eliminating the foredunes and impacts from human activity along the revetment and in residential backyards. Although conspecific common ciliated dune beetles (*Coelus ciliatus*) were found, no globose dune beetles were observed during invertebrate surveys conducted at 501 Sand Point Road in 2017, 2018, and 2020 (Althouse & Meade 2021). Globose dune beetle is considered to have a low likelihood of occurrence at the Project site.

Burrowing owl (*Athene cunicularia*) (SSC)

Burrowing owl is considered a Species of Special Concern by the CDFW and is candidate species for listing under the California Endangered Species Act (CESA). Burrowing owl is a rare transient and winter visitor to the South Coast (Lehman 2024). One adult/juvenile burrowing owl was first reported at the eastern end of the rock revetment at the terminus of Sand Point Road on December 7, 2025. The burrowing owl was seen perched on the revetment at dawn and dusk consistently through December 2025, January 2026, and February 2026. It was last observed on February 26, 2026 (Latitude 34.39747, Longitude -119.53829) (CNDDB, Gaede 2026). SES conducted a survey of the rock revetment on March 10, 2026 and no burrowing owl was present but surveyors identified owl pellets near the location documented in the CNDDB. The over-wintering location was approximately 300 feet east of the closest residence. No ground squirrels, burrows, or indications of ground squirrel activity were observed in or around the rock revetment. It is presumed that the burrowing owl was taking refuge in openings and crevices in the revetment rather than burrows.

Three (3) other historic records of burrowing owl occurring in or around the Carpinteria Salt March Reserve were verifiable: a fall migrant in October 2006, a single-date wintering record in January 2002, and a fall migrant in October 1976 (pers. comm. P. Gaede). Burrowing owl observations for the Carpinteria Salt Marsh Reserve are summarized in Table 3.3-6.

Table 3.3-6. Carpinteria Salt Marsh reserve Burrowing Owl Records

Date	Location	Status	Citation
December 7, 2025 through February 26, 2026	Rock Revetment at the end of Sand Point Road.	Wintering	CNDDB (*GAE25F0011*), eBird
October 8, 2006	Estero Way Extension (formerly Apple Road)	Fall Migrant	N. Lethaby pers comm, eBird
January 30, 2002	Within the marsh, but location not determined.	Single date winter record	Informal Surveys conducted by Robert Hansen. Survey data housed at UCSB CCBER.
October 24, 1976	Presumably within the census area defined in the document as the northwest portion of the marsh between Sandyland Road and the railroad tracks.	Fall Migrant	Basham, Venita. Avian Census & Habitat Utilization of Three Southern California Coastal Salt Marshes, Humboldt State University (M.S. Thesis, Humboldt State University, Dec. 1982).

3.3.3 Regulatory Setting

Sensitive biological resources including special-status plant and wildlife species, sensitive plant communities, wildlife corridors, nesting birds, and jurisdictional waters and wetlands, may be protected under various Federal, State, and local laws, regulations, and land use policies. The following sections summarize the regulations and policies administered by resource agencies

pertaining to biological resources that are known to occur or have the potential to occur in the in and around the Project site.

3.3.3.1 Federal Regulations

Endangered Species Act (16 U.S. Code § 1531 et seq.)

The Endangered Species Act of 1973 (ESA) provides for the protection of plant and animal species listed by the Federal government as "endangered" or "threatened," and "the ecosystems upon which they depend." The USFWS and National Marine Fisheries Service (NMFS) share responsibility for administration of the Federal ESA. An "endangered" species is one that is "in danger of extinction" throughout all or a significant portion of its range. A "threatened" species is one that is "likely to become endangered" within the foreseeable future. The ESA prohibits "take" of threatened or endangered species except under certain circumstances and only with authorization from the USFWS. "Take" as defined by the ESA, "means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." This can also include the modification of a species' habitat. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on Federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-Federal land in knowing violation of State law (16 U.S. Code [U.S.C.] § 1538(c)).

When non-Federal entities, such as states, counties, local governments, and private landowners, wish to conduct an otherwise lawful activity that might incidentally, but not intentionally, "take" a listed species, an incidental take permit must first be obtained via formal consultation with the USFWS using one of two methods. If a Federal nexus is not available, an incidental take permit (ITP) must be obtained for the project following formal consultation with the USFWS via Section 10 of the ESA (ESA § 10[a][1][B]).

If a federal nexus is available, then an incidental take permit may be obtained by the Federal agency involved in the nexus (e.g., USACE) via Section 7 of the ESA (ESA § 7). Section 7 stipulates that any Federal agency action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat (16 U.S.C. §1536[a][2]). The Biological Opinion issued by the USFWS at the conclusion of the consultation may include authorization for incidental take of a listed species.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) protects all marine mammals, including cetaceans (i.e., whales, dolphins, and porpoises), pinnipeds (i.e., seals and sea lions), sirenians (i.e., manatees and dugongs), sea otters, and polar bears within the waters of the U.S. Specifically, the MMPA prohibits the intentional killing or harassment of these marine mammals; however, incidental harassment, with authorization from the appropriate Federal agency, may be permitted. The National Marine Fisheries Service (NMFS) is responsible for enforcing the MMPA.

Essential Fish Habitat

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act protects Essential Fish Habitat (EFH) which is defined as "…those waters and substrate necessary for fish spawning, breeding, feeding, or growth to maturity." "Waters," as used in this definition, are defined

to include "aquatic areas and their associated physical, chemical, and biological properties that are used by fish." These may include "…areas historically used by fish where appropriate; 'substrate' to include sediment, hard bottom, structures underlying the waters, and associated biological communities." "Necessary" means, "the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem." EFH is described as a subset of all habitats occupied by a species (NOAA 1998).

NMFS identifies four Habitats of Particular Concern (HAPC) within the southern central California area: estuaries, rocky reefs, seagrass beds, and kelp beds. HAPCs are defined as discrete subsets of EFH that provide important ecological functions and/or are especially vulnerable to degradation. The HAPC designation does not necessarily confer additional protection or restrictions upon an area, but it helps prioritize and focus conservation efforts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MTBA) of 1918 (16 U.S.C. §§ 703-711) is also administered by the USFWS. The MTBA provides protection of nearly all species of birds, their nests, and their eggs, including all native bird species. Under the MTBA, it is it is unlawful to purposefully take, kill, collect, possess, buy, sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations (CFR) Part 10, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 CFR Part 21). Certain game bird species are allowed to be hunted for specific periods determined by Federal and State governments. In 2024, the language that made incidental take illegal under the MBTA (M Opinion) was rescinded and the USFWS can no longer permit, prosecute, or require reporting of incidental take (E. Hockman pers. comm. 2025).

Clean Water Act – Section 404

The Clean Water Act (CWA) is comprehensive legislation established to protect the nation's water from pollution by setting water quality standards and by limiting the discharge of effluents in the waters of the U.S. Section 404 of the CWA regulates the discharge of dredged and/or fill material into waters of the U.S., including wetlands. Section 404 of the CWA is jointly administered and enforced by the UUSACE and the U.S. Environmental Protection Agency (USEPA). Activities in waters of the U.S. regulated under Section 404 include dredge or fill for development, water resources projects (i.e., dams and levees), infrastructure development (i.e., highways and airports), and mining projects. With the exception of certain farming and forestry activities that are exempt from Section 404 regulation, a Section 404 permit is required before any dredged or fill material may be discharged into waters of the U.S. The Section 404 program prohibits discharge of dredged or fill material if waters of the U.S. would be significantly degraded or a practical alternative exists that is less damaging to the aquatic environment.

Waters of the U.S.

On January 18, 2023, the USEPA and USACE published the *Revised Definition of "Waters of the United States."* (2023 Rule) in the Federal Register that defines the scope of waters protected under the CWA. The 2023 Rule became effective on March 20, 2023. Subsequently, the USEPA and USACE published the *Revised Definition of "Waters of the United States"; Conforming* (Sackett Rule) in the Federal Register on September 8, 2023, as a result of the Supreme Court ruling on *Sackett v. EPA*. The Sackett Rule reflects the changes in USACE guidance associated with the ruling (i.e., elimination of isolated/adjacent wetlands and the significant nexus standard).

Based on Sackett Rule, ephemeral streams may no longer be considered jurisdictional by the USACE unless the relatively permanent standard can be met. An ephemeral stream is defined as having flowing water only during and for a short duration after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round and groundwater is not a source of water for the stream. Runoff/direct precipitation from rainfall is the primary source is water for stream flow (USACE 2007).

Jurisdictional Waters

Per the Sackett Rule and for purposes of the CWA (33 U.S.C. § 1251 et seq.) and its implementing regulations, the term "waters of the U.S." means waters which are:

(1) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide.

(2) The territorial seas or interstate waters.

(3) Tributaries of waters that are relatively permanent, standing or continuously flowing bodies of water.

(4) Wetlands that have a continuous surface connection to relatively permanent, standing or continuously flowing bodies of water.

(5) Intrastate lakes and ponds that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to waters.

The limit of USACE's jurisdiction in non-tidal waters extends to the ordinary high water mark (OHWM). The term OHWM means that line on the shore/bank established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Per the Sackett Rule, the term "adjacent" means having a continuous surface connection.

Non-Jurisdictional Waters

The following are not "waters of the U.S." even where they otherwise meet the criteria outlined above:

(1) Wastewater treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the CWA.

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities.

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water.

(4) Artificially irrigated areas that would revert to upland should application of irrigation water to that area cease.

(5) Artificial lakes and ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water primarily for aesthetic reasons.

(7) Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the U.S.

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration of flow.

3.3.3.2 State Regulations

California Endangered Species Act (California Fish and Game Code § 2050, et seq.)

Fish and wildlife resources are protected by a number of laws and programs administered by the CDFW, formerly the California Department of Fish and Game. The CESA generally parallels the provisions of the Federal ESA, and states that "all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved."

Under the CESA, "endangered" is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range;" and "threatened" is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts." "Take" is defined as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" an individual of a species, but the definition does not include "harm" or "harass," as the ESA does. As a result, the threshold for a take under the CESA is higher than that under the Federal ESA. Exceptions to the take prohibition are limited to authorization of collection for "necessary scientific research".

Consistent with the CESA, CDFW has established lists of endangered, threatened, and candidate species that may or may not be included on a Federal ESA list. CDFW also maintains a list of Species of Special Concern for those species that have declining populations, limited distribution, diminishing habitat, or unusual scientific, educational, or recreational value. In addition, CDFW manages a "watch list" of species that have been de-listed or are vulnerable. Species of Special concern and watch list species are not afforded the same legal protection as listed species.

Native Plant Protection Act (California Fish and Game Code §§ 1900-1913, § 2062 and § 2067)

The CDFW also manages the California Native Plant Protection Act (NPPA), which designates and protects species eligible for State listing. Eligible species include those identified on CNPS Rare Plant Ranks (CRPRs) 1A, 1B, and 2 meet the definitions of Sections 1901, Chapter 10 (NPPA) or Sections 2062 and 2067 (CESA) of the California Fish and Game Code. CRPR 3 and 4 species, though not meeting the criteria for listing by CDFW, may be considered during project review by the agencies.

Clean Water Act – Section 401

The CWA Section 401 Water Quality Certification (Section 401 Certification) provides states and authorized tribes an opportunity to address the aquatic resource impacts of federally issued permits and licenses, to help protect water quality. Under Section 401 of the CWA, any applicant for a Federal license or permit to conduct any activity that may result in any discharge into waters of the U.S. must obtain a Section 401 Certification from the State Water Resources Control Board (SWRCB) that the proposed activity will comply with State water quality standards. In California, Section 401 Certifications are issued by Regional Water Quality Control Boards (RWQCB) located throughout the State. The Central Coast RWQCB issues Section 401 Certifications for projects in the County. The Federal CWA Section 404 permit is dependent on and subject to the terms of the Section 401 Certification. Therefore, under Section 401, a Federal agency cannot issue a permit or license for an activity that may result in discharge into waters of the U.S. until the RWQCB has granted or waived the Section 401 Certification. Section 401 Certification is limited to federally jurisdictional waters and wetlands.

Waters of the State

California Code of Regulations, Title 23, Section 3831(w) states that "all waters of the United States are also 'waters of the state.'" This regulation has remained in effect despite Federal decisions which added limitations to what could be considered a water of the U.S. Therefore, the regulation reflects the SWRCB's intent to include a broad interpretation of waters of the U.S. into the definition of waters of the State. Waters of the State includes features that have been determined by the USEPA or the USACE to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report certified by the USACE upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic Federal regulation defining "waters of the U.S."

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires an evaluation of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides thresholds and guidelines for use by lead agencies to assess the significance of proposed impacts.

Section 15065 of the act states that a lead agency shall find that a project may have a significant effect on the environment, and thereby require an Environmental Impact Report (EIR) to be prepared for the project, where the project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

CEQA states that a project will normally have a significant effect on the environment if it will:

> *"(a) Conflict with adopted environmental plans and goals of the community where it is located; (b) Substantially affect a rare or endangered species of animal, plant or the habitat of the species; (c) Interfere substantially with the movement of any resident or migratory fish or wildlife species; and (d) Substantially diminish habitat for fish, wildlife or plants"* (County of Santa Barbara 2021).

A project is not subject to CEQA under CEQA Guideline Section 15061(b)(3) "where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment."

California Coastal Act

The CCC was established in 1972 to regulate coastal development and its impact on public access and coastal resources. The CCC was made permanent by the State Legislature through adoption of the California Coastal Act of 1976 (Public Resource Code [PRC] Sections 30000 et seq.). The California Coastal Act (Coastal Act) outlines standards for development within the Coastal Zone, which extends along 1,100 miles of the California coastline and encompasses 1.5 million acres of land. The Coastal Act encourages local governments to create Local Coastal Programs (LCPs) that govern decisions regarding short-term and long-term conservation and use of coastal resources. Development within the Coastal Zone requires a Coastal Development Permit (CDP) issued by the Coastal Commission or by a local government with a Coastal Commission-certified LCP. The County has a certified LCP and has land use jurisdiction over the Project site. Therefore, the County has the authority to issue a CDP for the proposed Project.

Environmentally Sensitive Habitat

An ESH area is defined in the California Coastal Act § 30107.5 as:

> *"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Examples of ESH include: coastal streams and wetlands, native vegetation communities (e.g., native grasslands, coastal sage scrub, maritime chaparral, oak woodlands), rare and endangered native plant populations, dunes, monarch butterfly trees, white-tailed kite habitat, marine rookeries, and rocky points and intertidal areas. ESH and policies intended to protect ESH, are further defined in the County's LCP and CLUP (County of Santa Barbara 2019).

3.3.3.3 Local Land Use Policies

County Coastal Land Use Plan

The County's LCP and associated CLUP regulate development within the County's Coastal Zone. To ensure consistency with the Coastal Act, the County has adopted many of the CCC's regulations and policies regarding protection of coastal resources (e.g., marine mammal rookeries/hauling grounds, dunes, wetlands, streams, native plant communities). The CLUP policies that are applicable to the Project and surrounding habitats are described below.

CLUP Policy 9-1. Prior to the issuance of a development permit, all projects shown on the land use plan and/or resource maps with a Habitat Area overlay designation or within 250 feet of such designation or projects affecting an environmentally sensitive habitat area shall be found to be in conformity with the applicable habitat protection policies of the land use plan. All development plans, grading plans, etc., shall show the precise location of the habitat(s) potentially affected by the proposed project. Projects which could adversely impact an environmentally sensitive habitat area

may be subject to a site inspection by a qualified biologist to be selected jointly by the County and the applicant.

Dunes

CLUP Policy 9-2. Because of their State-wide significance, coastal dune habitats shall be preserved and protected from all but resource dependent, scientific, educational, and light recreational uses. Sand mining and oil well drilling may be permitted if it can be shown that no alternative location is feasible and such development is sited and designed to minimize impacts on dune vegetation and animal species. Disturbance or destruction of any dune vegetation shall be prohibited, unless no feasible alternative exists, and then only if re-vegetation is made a condition of project approval. Such re-vegetation shall be with native California plants propagated from the disturbed sites or from the same species at adjacent sites.

CLUP Policy 9-4. All permitted industrial and recreational uses shall be regulated both during construction and operation to protect critical bird habitats during breeding and nesting seasons. Controls may include restriction of access, noise abatement, restriction of hours of operations of public or private facilities.

CLUP Policy 9-5. For all permitted uses, including recreation, foot traffic on vegetated dunes shall be minimized. Where access through dunes is necessary, well-defined footpaths shall be developed and used.

Wetlands

CLUP Policy 9-6. All diking, dredging, and filling activities shall conform to the provisions of Sections 30233 and 30607.1 of the Coastal Act. Dredging, when consistent with these provisions and where necessary for the maintenance of the tidal flow and continued viability of the wetland habitat or for flood control purposes, shall be subject to the following conditions:

a. Dredging shall be prohibited in breeding and nursery areas and during periods of fish migration and spawning.

b. Dredging shall be limited to the smallest area feasible.

c. Designs for dredging and excavation projects shall include protective measures such as silt curtains, diapers, and weirs to protect water quality in adjacent areas during construction by preventing the discharge of refuse, petroleum spills, and unnecessary dispersal of silt materials. During permitted dredging operations, dredge spoils may only be temporarily stored on existing dikes or on designated spoil storage areas, except in the Atascadero Creek area (including San Jose and San Pedro Creeks) where spoils may be stored on existing storage areas as delineated on the Spoil Storage Map, dated February, 1981. (Projects which result in discharge of water into a wetland require a permit from the RWQCB.)

CLUP Policy 9-7. Dredge spoils shall not be deposited permanently in areas subject to tidal influence or in areas where public access would be significantly adversely affected. When feasible, spoils should be deposited in the littoral drift, except when contaminants would adversely affect water quality or marine habitats, or on the beach.

CLUP Policy 9-9 (in part). A buffer strip, a minimum of 100 feet in width, shall be maintained in natural condition along the periphery of all wetlands. No permanent structures shall be permitted

within the wetland or buffer area except structures of a minor nature, i.e., fences, or structures necessary to support light recreation.

The upland limit of a wetland shall be defined as: 1) the boundary between land with the predominately hydrophytic cover and land with predominantly mesophytic or xerophytic cover; or 2) the boundary between soil that is predominately hydric and soil that is predominately nonhydric; or 3) 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.

CLUP Policy 9-12. Wetland sandbars may be dredged, when permitted pursuant to Policy 9-6 above, and when necessary for maintenance of tidal flow to ensure the continued biological productivity of the wetland.

CLUP Policy 9-14. New development adjacent to or in close proximity to wetlands shall be compatible with the continuance of the habitat area and shall not result in a reduction in the biological productivity or water quality of the wetland due to runoff (carrying additional sediment or contaminants), noise, thermal pollution, or other disturbances.

Marine Mammal Rookeries and Hauling Grounds

CLUP Policy 9-25. Marine mammal rookeries shall not be altered or disturbed by recreational, industrial, or any other uses during the times of the year when such areas are in use for reproductive activities, i.e., mating, pupping, and pup care. Times of year when marine mammals use rookery areas:

a. Harbor seals: February through April
b. Northern Elephant seals: Mid-December through February
c. Sea Lions and fur seals: May through September

Native Plant Communities

CLUP Policy 9-36. When sites are graded or developed, areas with significant amounts of native vegetation shall be preserved. All development shall be sited, designed, and constructed to minimize impacts of grading, paving, construction of roads or structures, runoff, and erosion on native vegetation. In particular, grading and paving shall not adversely affect root zone aeration and stability of native trees.

Streams

CLUP Policy 9-37. The minimum buffer strip for major streams in rural areas, as defined by the land use plan, shall be presumptively 100 feet, and for streams in urban areas, 50 feet. These minimum buffers may be adjusted upward or downward on a case-by-case basis. The buffer shall be established based on an investigation of the following factors and after consultation with the Department of Fish and Game and Regional Water Quality Control Board in order to protect the biological productivity and water quality of streams:

(1) Soil type and stability of stream corridors;

(2) How surface water filters into the ground;

(3) Slope of the land on either side of the stream; and

(4) Location of the 100-year flood plain boundary.

Riparian vegetation shall be protected and shall be included in the buffer. Where riparian vegetation has previously been removed, except for channelization, the buffer shall allow for the reestablishment of riparian vegetation to its prior extent to the greatest degree possible.

CLUP Policy 9-41. All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased runoff, sedimentation, biochemical degradation, or thermal pollution.

3.3.4 Environmental Impact Analysis

The following sections describe the direct, indirect, permanent, and temporary impacts of the proposed Project on biological resources and provides a preliminary judgement on whether impacts are significant.

3.3.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on biological resources if it would:

a) Substantially degrade the quality of the environment,

b) Substantially reduce the habitat of a fish or wildlife species,

c) Cause a fish or wildlife population to drop below self-sustaining levels,

d) Threaten to eliminate a plant or animal community,

e) Reduce the number or restrict the range of a rare or endangered plant or animal, or

f) Eliminate important examples of a major period of California history or prehistory.

Santa Barbara County Thresholds

Consistent with the County's *Environmental Thresholds and Guidelines Manual* and CLUP, the impacts on biological resources are considered significant if a proposed project:

a. Has a substantial adverse effect, either directly or through habitat modifications, on any on any sensitive natural community or plant or wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

b. Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

c. Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

d. Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

e. Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

3.3.4.2 Impact Assessment Methodology

Determination of potential biological resources at the Project site and analysis of the potential impacts on such resources was completed as part of the Biological Resources Assessment prepared for the proposed Project by SES (see Appendix F).

Prior to conducting the field reconnaissance, a literature review was performed to identify any special-status plant and wildlife species and sensitive natural communities that have the potential to occur in the Project site and vicinity. The literature review included an examination of the CNPS Inventory of Rare and Endangered Plants (CNPS 2025a), the CDFW's California Natural Diversity Database (CNDDB 2025), the USFWS Endangered Species Database (USFWS 2025a), and the USFWS critical habitat portal (USFWS 2025b). SES also reviewed the NRCS Web Soil Survey of Santa Barbara County, California, South Coastal Santa Barbara Area (NRCS 2025), the USGS CA 7.5-minute quadrangle maps, the National Hydrography Dataset (NHD) (USGS 2025), National Wetlands Inventory (NWI) (USFWS 2025c), and weather data. The literature review also included an examination of relevant reports from properties along Sand Point Road.

Field surveys were completed on May 21, 2024 by biologists Jessica Peak and Sophia Manning. Additional field surveys to document wildlife use of the Survey Area and adjacent Carpinteria Salt Marsh were conducted on December 10, 2025 by Peter Gaede, and March 10, 2026 by Justine McGrath and John Storrer. The survey effort included vegetation mapping, documentation of rare plant species, and botanical and wildlife inventories. Special-status species that are known to occur or have the potential to occur in the vicinity of the Survey Area (see Figure 3.3-4) were targeted during the field surveys (e.g., red sand verbena, salt marsh bird's beak, light-footed Ridgway's rail, burrowing owl, etc.). Detailed discussion of the survey methodology is provided in Appendix F.

Direct impacts to biological resources were assessed by identifying the locations of proposed construction activities, determining the locations of existing biological resources within the Project site that may be affected, and determining appropriate mitigation measures. The repaired rock revetment, splash wall, and coastal access stairways are considered direct, permanent impacts. Temporary impacts include ground disturbance for construction/repair of the revetment, demolition of 12 private access stairways, construction of 11 new publicly accessible stairways, non-native vegetation removal, dune restoration/enhancement, and related disturbance from these activities (e.g., dust and noise).

Based on the results of the Biological Resources Assessment, the proposed Project (i.e., revetment, public access walkways, staging area) may result in impacts to up to 2.63 acres of dune mat, sandy beach, ice plant mat, and ornamental/landscaping vegetation. The majority of the vegetation within the Project site is comprised of invasive plant species, primarily ice plant, and has limited wildlife value. Ice plant mats and other non-native vegetation within the footprint of the proposed Project would be removed and replaced with native plant species as part of the proposed Project.



Figure 3.3-4. Project Survey Area

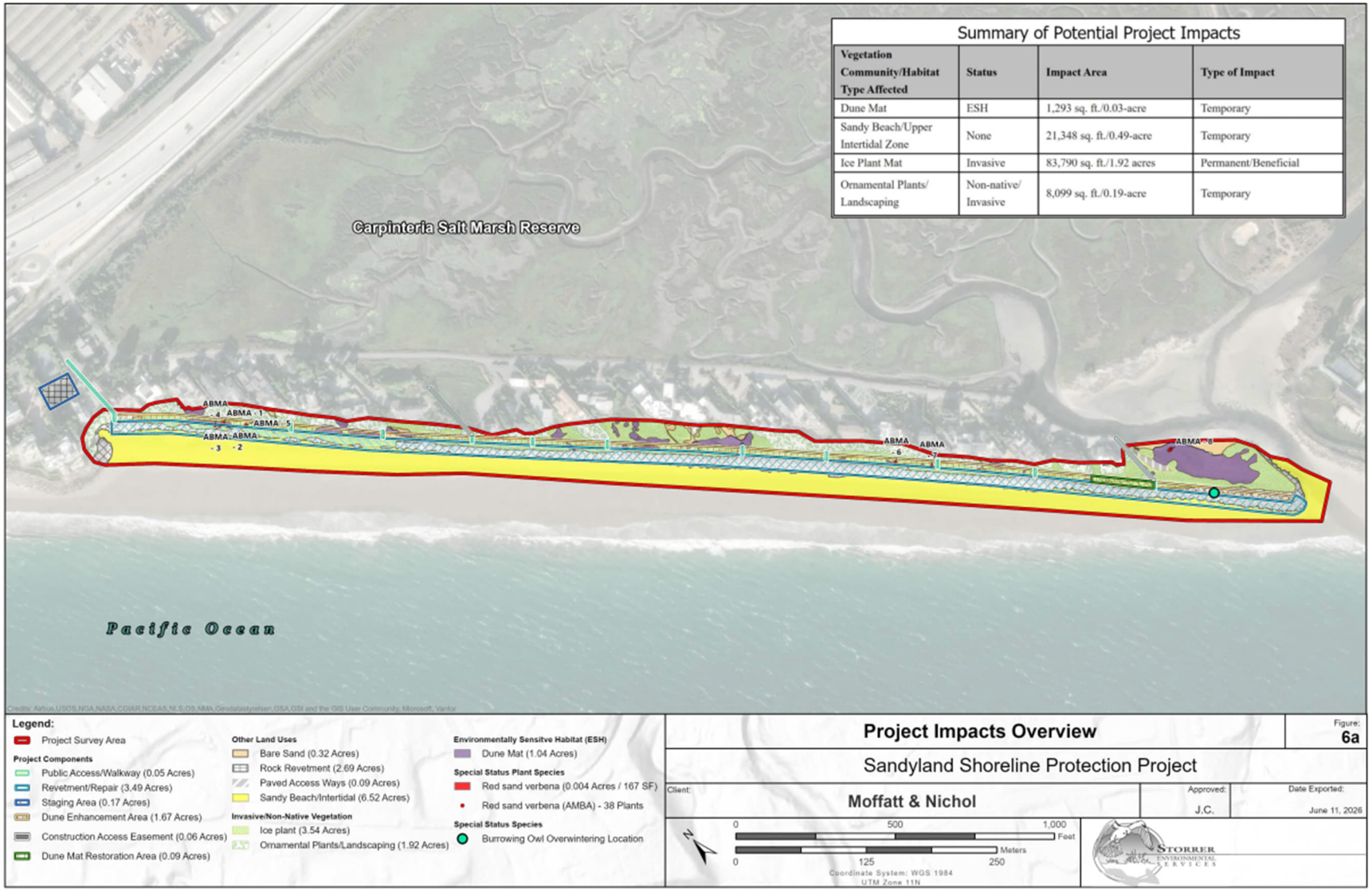


Figure 3.3-5. Project Impacts Overview

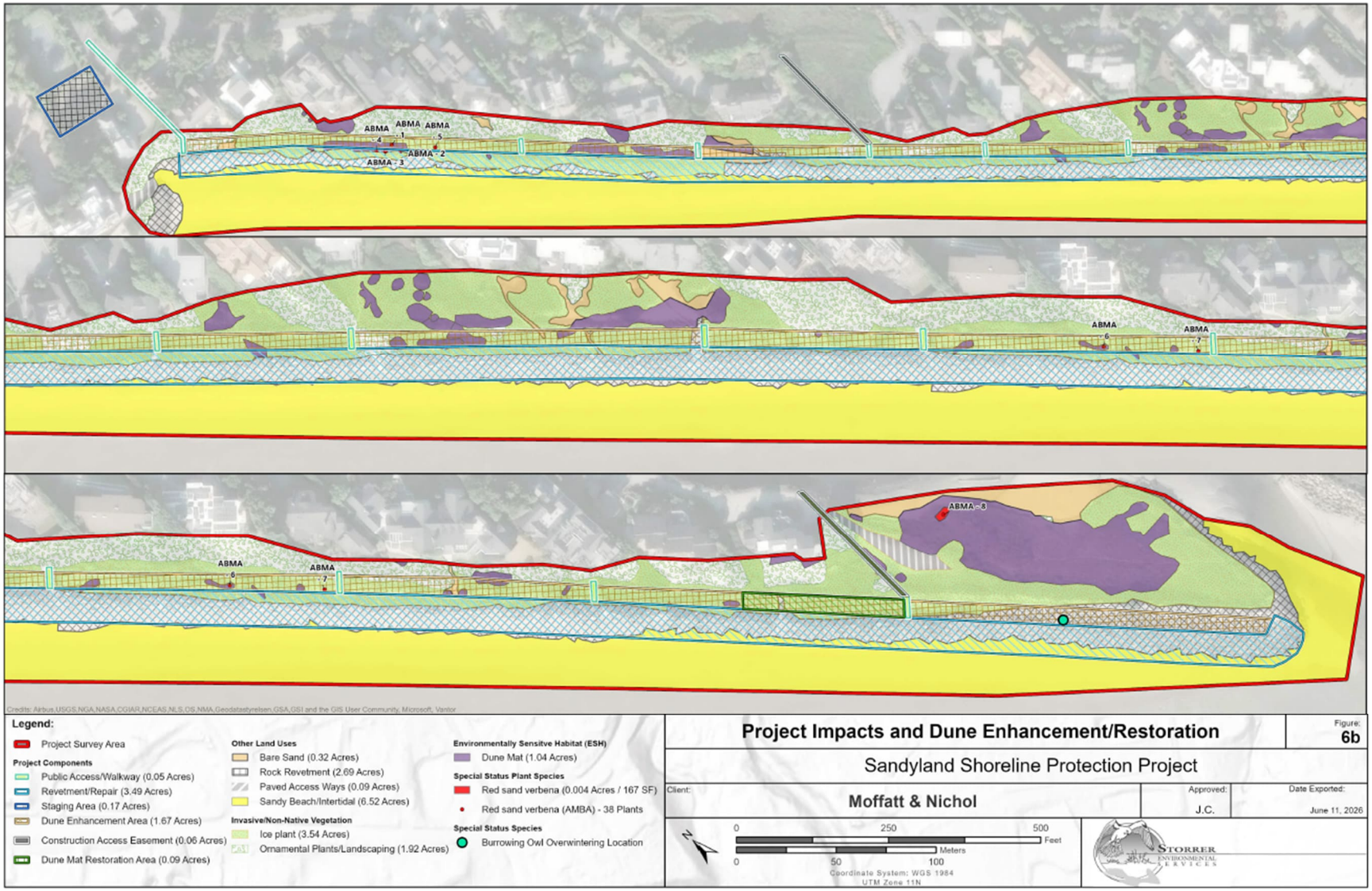


Figure 3.3-6. Project Impacts and Dune Enhancement/Restoration

Table 3.3-7. Summary of Potential Project Impacts

Vegetation Community/Habitat Type Affected	Status	Impact Area	Type of Impact
Dune Mat	ESH	1,293 sf/0.03-acre	Temporary
Sandy Beach/Upper Intertidal Zone	None	21,348 sf/0.49-acre	Temporary
Ice Plant Mat	Invasive	83,790 sf/1.92 acres1	Permanent/Beneficial2
Ornamental Plants/ Landscaping	Non-native/ Invasive	8,099 sf/0.19-acre1	Temporary

Notes:
[1] Ice plant mats and ornamental/landscaping plants will be removed from the County easements as part of the Project and the dune ESH in the swale between the rock revetment and splash wall will be enhanced with native dune species appropriate to the region.
[2] Ice plant mats will be removed from the entirety of the 3,700-foot-long revetment and swale, not just in areas impacted by construction, ensuring an overall benefit to dune habitat from implementation of the Project.

3.3.4.3 Project Impacts

Table 3.3-8 provides a summary of the proposed Project's impacts related to biological resources. A detailed discussion of each impact follows.

Table 3.3-8. Summary of Biological Resources Impacts

Biological Resources Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact BIO-1. The proposed Project will result in direct impacts to Environmentally Sensitive Habitat (ESH) (i.e., coastal dune habitat, native vegetation).	Potentially significant	MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-2. The proposed Project will result in direct impacts to a rare plant species (i.e., red sand verbena).	Potentially significant	MM BIO-1 MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-3. The proposed Project would potentially result in direct take or disturbance to special-status wildlife species.	Potentially significant	MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-4. Noise levels caused by heavy equipment use in the Project Site, including staging areas, access pathways, and construction zones could potentially impact nesting birds in the vicinity.	Potentially significant	MM BIO-2 MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable

Table 3.3-8. Summary of Biological Resources Impacts (Continued)

Biological Resources Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact BIO-5. Removal of invasive ice plant mats and restoration/enhancement of the dune habitat could potentially disturb native dune mat vegetation and special-status wildlife species; however, impacts would be less than significant and beneficial to the dune ecosystem in the long-term.	Potentially significant	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Impact BIO-6. The proposed Project would potentially result in indirect impacts (e.g., noise, dust, lighting, sediment deposition) to the Carpinteria Salt Marsh Preserve and associated special-status species .	Potentially significant	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable
Cumulative Impacts	Potentially significant	MM BIO-1 MM BIO-2 MM BIO-3a through MM BIO-3e MM BIO-4 MM BIO-5 MM BIO-6 MM BIO-7	Significant but mitigable

Impact BIO-1. The proposed Project will result in direct impacts to ESH (e.g., coastal dune habitats, native vegetation).

Pursuant to the County's CLUP policies, coastal dune habitats and native vegetation shall be preserved and protected. Disturbance or destruction of any dune vegetation is prohibited, unless no feasible alternative exists, and then only if re-vegetation is made a condition of project approval. Dune re-vegetation must consist of appropriate native California plants, propagated from the disturbed sites or from the same species at adjacent sites whenever possible. Foot traffic on vegetated dunes shall be minimized and projects should be sited, designed, and constructed to minimize impacts of grading/construction on native vegetation.

The proposed Project would result in impacts to approximately 0.029-acre of dune mat vegetation, which would be disturbed or removed/salvaged in order repair/rebuild the revetment and ensure shoreline protection for the residences along Sand Point Road and the Carpinteria Salt Marsh Preserve. Direct impacts to sensitive native dune vegetation would be considered *potentially significant*.

Project design and implementation of MM BIO-4 through MM BIO-7 would ensure mitigation for impacts to native plant communities and sensitive dune habitat through implementation of the avoidance/minimization measures and proposed dune enhancement/restoration. Removal of ice

plant mats and other non-native plant species and replanting the Dune Mat Restoration Area and the coastal dune habitat along the 3,700-foot-long rock revetment (up to approximately 1.7 acres of dune habitat) once repair of the shoreline protection is complete ensures an overall benefit to dune habitat as a result of the proposed Project. Native plants would be avoided during removal of ice plant mats and non-native vegetation to the maximum extent practical. With implementation of the proposed dune enhancement/restoration and recommended avoidance and minimization measures, direct impacts to sensitive coastal dune mat habitat from the proposed Project would be *significant but mitigable*.

The proposed Project would result in impacts to jurisdictional tidal non-wetland waters of the U.S. and waters of the State (i.e., sandy beach in the intertidal zone). Further, the proposed Project would result in placement of up to 15,000 tons of 3- to 5-ton armor rocks in the intertidal zone to repair and restore the 1983 revetment design. Pursuant to the CWA, a Section 404 permit from the USACE and a Section 401 Water Quality Certification from the RWQCB is required. Thus, direct impacts to sensitive tidal non-wetland waters (including the sandy beach in the intertidal zone) would be considered *potentially significant*. With implementation of the MM BIO-4 through MM BIO-7, impacts to jurisdictional resources would be considered *significant but mitigable*.

Impact BIO-2. The proposed Project will result in direct impacts to a rare plant species (i.e., red sand verbena).

The proposed Project would result in removal/salvage of six red sand verbena plants to repair the rock revetment. However, dune enhancement/restoration occurring under the proposed Project would include replacement of red sand verbena at a minimum 3:1 ratio (plants removed: plants established) in the Dune Mat Restoration Area. While affected red sand verbena would be replaced at appropriate ratios for mitigation, impacts are conservatively considered *potentially significant.* Implementation of MM BIO-1 and MM BIO-4 through MM BIO-7 would provide further protections for native plants and sensitive habitats during construction. With implementation of the proposed dune enhancement/restoration and recommended avoidance and minimization measures, direct impacts to special-status plant species from the Project would be *significant but mitigable*.

Impact BIO-3. The proposed Project would potentially result in direct take or disturbance to special-status wildlife species.

Two special-status invertebrates have the potential to occur in dune and sandy beach habitat that would be affected by the proposed Project: sandy beach tiger beetle and globose dune beetle. There is no nesting habitat for Crotch's bumble bee in the Project site. The proposed Project would temporarily reduce available upland/foraging habitat for terrestrial invertebrates that occupy dune mat vegetation, but the habitat will be restored/enhanced with native dune mat plant species following construction. With implementation of the recommended mitigation measures (seasonally timed pre-construction surveys, biological monitoring), the proposed Project is not likely to significantly impact special-status invertebrates.

Further, the proposed Project would impact dune habitat that could support California legless lizard. Legless lizard was not found in the Project site during coverboard surveys conducted at 501 Sand Point Road at the east end of the Project site in 2017, 2018, 2019, 2020, and 2021, and are unlikely to occur. Burrowing owls are known to infrequently use the crevices in the rock revetment for overwintering habitat and have been documented in the Survey Area four (4) times since 1976, including in winter 2025-2026.

While California legless lizard were not identified during field surveys, suitable habitat for California legless lizard exists at the Project site and could be impacted by construction activities. Further, repair of the rock revetment may temporarily impact potential overwintering habitat for burrowing owl. Impacts are therefore considered *potentially significant.* Implementation of MM BIO-3a through MM BIO-3e and MM BIO-4 through MM BIO-7 would reduce the potential for impacts to special-status wildlife species and provide suitable mitigation for the disturbance of habitat. With implementation of mitigation measures, impacts would be *significant but mitigable.*

Impact BIO-4. Noise levels caused by heavy equipment use in the Project Site, including staging areas, access pathways, and construction zones could potentially impact nesting birds in the vicinity.

The proposed Project has the potential to temporarily displace shorebirds (e.g., western snowy plover), seabirds and landbirds. Noise and activity from construction and equipment reduces available foraging, resting, and potential breeding habitat for birds. While enhancement/restoration of the dune mat vegetation post-construction would improve nesting and foraging habitat for birds, temporary construction-related impacts are considered *potentially significant*. Implementation of MM BIO-2, BIO-3e, and MM BIO-4 through MM BIO-7 and, along with implementation of standard construction BMPs, would reduce temporary impacts to nesting birds such that impacts would be *significant but mitigable*.

Impact BIO-5. Removal of invasive ice plant mats and restoration/enhancement of the dune habitat could potentially disturb native dune mat vegetation and special-status wildlife species; however, impacts would be less than significant and the dune ecosystem would benefit in the long-term.

The proposed Project would remove 1.92 acres of invasive ice plant mats and restore/enhance the coastal dune habitat along the 3,700-foot-long rock revetment (up to approximately 1.7 acres of dune habitat restored/enhanced) once repair of the shoreline protection is complete. Red sand verbena, native dune plant species, and sensitive wildlife could be disturbed or impacted during ice plant removal and replanting of the Dune Enhancement Area. However, red sand verbena and native dune plant species would be avoided or salvaged as possible. While impacts from ice plant removal and dune restoration/enhancement would be temporary, impacts are considered *potentially significant.* Implementation of MM BIO-1, MM BIO-2, MM BIO-3a through MM BIO-3e, and MM BIO-4 through MM BIO-7, and would reduce impacts to a *significant but mitigable* degree.

Impact BIO-6. The proposed Project would potentially result in indirect impacts (e.g., noise, dust, lighting, sediment deposition) to the Carpinteria Salt Marsh Preserve and associated special-status species.

The Carpinteria Salt Marsh supports several special-status plant and wildlife species (e.g., salt marsh bird's beak, Coulter's goldfields, Belding's savannah sparrow, light-footed Ridgeway's rail). It is a USFWS-designated critical habitat for Ventura marsh milk-vetch and is recognized as ESH in the County's CLUP. As described in Section 3.7, *Hydrology, Water Quality, and Coastal Processes*, the proposed Project would not result in impacts to the mouth of Santa Monica Creek or the Carpinteria Salt Marsh, where special-status fish (i.e., tidewater goby and southern California steelhead) have historically been known to occur. Impacts to the Carpinteria Salt Marsh due to repairs/rebuilding of the seawall would be limited to indirect disturbance (e.g., noise, dust, lighting, etc.). Because

construction and revetment repairs must be timed to coincide with low tide conditions, only small sections of the revetment can be excavated/constructed during each work window. This approach would reduce the likelihood of significant turbidity or sediment accumulation/deposition that could negatively impact the marsh or down shore coastal habitats. Nevertheless, impacts are considered *potentially significant.* With implementation of MM BIO-1, MM BIO-2, MM BIO-3a through MM BIO-3e, and MM BIO-4 through MM BIO-7, and impacts to the Carpinteria Salt Marsh would be *significant but mitigable*.

3.3.4.4 Cumulative Impacts

Development of the proposed Project in conjunction with future projects in the nearby vicinity could potentially result in a cumulative impacts to biological resources from direct and indirect disturbance of construction activities. A summary of the most relevant cumulative projects with regards to impacts to biological resources are provided below; however, as discussed the proposed Project and these individual projects would not result in substantial adverse impacts to biological resources, such that a cumulatively considerable impact would occur. Further, the proposed Project would be required to implement several mitigation measures to reduce Project-specific impacts. Therefore, the contribution of the proposed Project to cumulative construction emissions impacts would be *significant but mitigable.*

Sandew Residence, 501 Sand Point Road

This cumulative project involves construction of a 3,256 square foot (sf) residence, a 771 sf carport, a 338 sf utility vault, 1,776 sf elevated deck area, and an elevated pool at the eastern terminus of Sand Point Road, commonly known as 501 Sand Point Road (Assessors Parcel Number [APN] 004-098-011). An existing gravel driveway will be replaced and enlarged with permeable pavers. Proposed grading includes 35 cubic yards (cy) of net export. Landscaping using native plants is proposed. The proposed project includes habitat restoration as specified in the Preliminary Habitat Restoration Plan for 501 Sand Point Road, Santa Barbara County, prepared by Althouse & Meade (2021). Restoration will include removal of invasive vegetation and restoration of native species. The project includes onsite restoration of terrestrial habitat comprising 0. 75 acre. Wetland and alkali heath habitats (0.08 acre) will be preserved and non-native plants will be removed. A total of 1.00 acre will be revegetated and restored to replace weed-dominated habitat with native dune species. Development is proposed to be confined to a 0.20-acre (8,878 sf) development envelope.

Coleman Demolition Rebuild, 755 Sand Point Road

This cumulative project involves demolition of an existing 1,774 square foot dwelling and the construction of a new 5,995 sf dwelling, with 5,800 sf of lower level storage area, an attached garage (1,335 sf), pool and hot tub (486 sf). The driveway access to the proposed dwelling would be widened by a total of 225 sf (per request of the Carpinteria Fire Department) and 25 sf of the existing driveway would be removed. A new fire hydrant would be installed in the Sandpoint Road right of way in accordance with Carpinteria Fire Department requirements. The project would be set back between 640 and 100 feet from an on-site wetland. No native wetland vegetation would be removed. Vegetation removed in any area less than 100 feet from the wetland (currently occupied by iceplant) is proposed to be removed and replaced with native vegetation pursuant to a proposed a Restoration and Habitat Enhancement Plan.

3.3.4.5 Proposed Mitigation

MM BIO-1. Pre-Construction Special-status Plant Surveys. Prior to initiation of vegetation removal, equipment mobilization, or construction, a County-approved biologist shall conduct special-status plant species surveys in and adjacent to the work areas. Special-status plant species (e.g., red-sand-verbena) and native dune mat vegetation shall be flagged for avoidance or salvaged.

Requirements and Timing: County Public Works shall confirm that these biological resources protection measures are printed on all construction plans and that required pre-construction surveys are completed prior to initiation of construction-related activities.

Monitoring: County Public Works shall check plans and review the pre-construction survey results prior to the initiation of construction-related activities. County Public Works compliance monitoring staff shall also spot-check in the field throughout excavation and construction activities.

MM BIO-2. Pre-Construction Nesting Bird Surveys. If the proposed Project is implemented during the breeding season (February 1 to August 31), a County-approved biologist shall conduct a pre-construction nesting bird survey of the work area and adjacent habitats within 7 days of construction commencement (i.e., mobilization, staging, vegetation clearing, or excavation). Surveys shall be conducted within 500 feet of proposed disturbance areas, or a lesser distance if dense vegetation renders a 500-foot survey radius infeasible. If construction is delayed for more than 7 days following the survey, work areas must be resurveyed to ensure no nests have become established.

If breeding birds with active nests are found prior to (or during) construction-related activities, a County-approved biologist shall oversee the establishment of a buffer (prescriptively 300 feet for passerines and 500 feet for raptors) around the nest and no construction shall be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. The buffer for active nests shall be delineated with flagging or fencing and construction personnel shall be instructed to refrain from work in those locations. Nest buffers must be adequate to ensure that no impacts would occur to nests, eggs, or young. The results of the nesting bird survey(s) shall be submitted to the County and USFWS/CDFW (as necessary) prior to construction.

Requirements and Timing: County Public Works shall confirm that these biological resources protection measures are printed on all construction plans and that required pre-construction nesting bird surveys are completed prior to initiation of construction-related activities.

Monitoring: County Public Works shall check plans and review the pre-construction survey results prior to the initiation of construction-related activities. County Public Works compliance monitoring staff shall also spot-check in the field throughout excavation and construction activities.

MM BIO-3a. Pre-Construction Special-status Wildlife Surveys. Prior to initiation of vegetation removal, equipment mobilization, or construction, a County-approved biologist shall conduct special-status wildlife species surveys in and adjacent to the work areas no more than 7 days prior to the start of construction to ensure no special-status species are present. If any special-status species are located during the pre-construction survey, consultation shall be conducted with CDFW and/or USFWS prior to the initiation of construction-related activities.

MM BIO-3b. California Legless Lizard. Prior to the initiation of construction-related activities, coverboards shall be installed for long-term monitoring for legless lizards in the vicinity of the Project site. Surveys for legless lizards shall be performed in proposed work areas immediately prior to and during ground disturbing activities that would affect potentially suitable habitat, as determined by the qualified biologist. Surveys shall be conducted by a qualified County-approved biologist familiar with legless lizard ecology and survey methods. Approval from CDFW to relocate legless lizards will likely be required.

i. Prepare a legless lizard relocation plan in coordination with CDFW and University of California Natural Reserve System Carpinteria Salt Marsh Reserve (UCNRS CSM) to relocate legless lizards to upland Carpinteria Salt Marsh habitat.

ii. Install coverboards in the Project site for monitoring for legless lizard during implementation of the proposed Project.

iii. Monitor construction activities during all new ground-disturbance activities located within legless lizard habitat.

iv. The County-approved biologist should relocate legless lizards (if found) to an appropriate location, agreed upon by CDFW.

MM BIO-3c. Invertebrates. Prior to the initiation of construction activities, surveys shall be conducted for special status invertebrate species (i.e., wandering skipper, sandy beach tiger beetle, globose dune beetle). Invertebrate pre-construction surveys shall be conducted by qualified biologists familiar with ecology and survey methods for targeted species. If special-status invertebrates are found during pre-construction surveys or vegetation removal, they shall be moved by the qualified biologist to a suitable location out of harm's way. Occurrences of special status species should be documented in the CNDDB by the qualified biologist.

MM BIO-3d. California grunion. To minimize impacts to grunion and grunion spawning the following measures are proposed:

i. If construction activities occur in March to August, grunion monitoring shall be conducted during the four consecutive nights of each scheduled grunion spawning run.

ii. Grunion monitoring shall occur for the grunion run preceding the commencement of construction operations to ensure construction activities do not impact previously deposited eggs incubating in the sand.

iii. Grunion monitoring shall occur for grunion runs throughout the duration of construction (including during mobilization and demobilization periods that have the potential to impact grunion eggs or spawning activities).

iv. If a significant grunion run is identified during monitoring, any construction work that could potentially disturb grunion eggs/nests shall be altered to avoid the area until the grunion eggs/larvae have hatched and washed back out to sea (approximately 2 weeks).

Requirements and Timing: County Public Works shall confirm that these biological resources protection measures are printed on all construction plans and that surveys are completed prior to initiation of construction-related activities.

Monitoring: County Public Works shall check plans and review the pre-construction survey results prior to the initiation of construction-related activities. County Public Works compliance monitoring staff shall also spot-check in the field throughout excavation and construction activities.

MM BIO-3e. Burrowing owls. Prior to initiation of ground- and rock-disturbing activities, a County-approved biologist shall conduct a take avoidance survey of the Project site and surrounding areas to a distance of 150 meters, in accordance with the methods outlined in the California Burrowing Owl Consortium (CBOC) Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and the California Department of Fish and Game (CDFG; now the CDFW) Staff Report on Burrowing Owl Mitigation (CDFG 2012). The pre-construction survey must cover all areas within 150 meters of the portion of the site where construction is planned to occur, except for the bare sandy beach area and tidelands located seaward of the revetment where no suitable burrowing owl habitat exists. Areas within 150 meters that are not accessible due to property access restrictions shall be surveyed using binoculars.

If no occupied or previously occupied (breeding or wintering) burrowing owl burrows are identified, no further action shall be required.

If occupied or previously occupied burrows are identified on the site or within 150 meters of the Project disturbance area, the County-approved biologist shall begin coordination with CDFW and USFWS immediately and shall prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, minimization, mitigation, and monitoring actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites (occupied site means at least one burrowing owl has been observed within the last 3 years; may also be indicated by owl sign including feathers, pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site), acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented, and as necessary, plans for compensatory mitigation for loss of habitat (if authorized by CDFW). Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls and the conservation status of adjacent or nearby suitable habitat, along with proposed relocation actions. The Burrowing Owl Plan shall be implemented following CDFW and USFWS review and approval. If construction activities, including burrow exclusion and closure, could result in take of burrowing owl, appropriate CESA authorization should be obtained prior to commencement.

Plan Requirements and Timing: County Public Works staff shall be given the name and contact information for the biologist prior to initiation of the focused take avoidance survey. The County-approved biologist shall conduct the survey prior to the initiation of any ground-disturbing activities. If deemed necessary, the Burrowing Owl Plan shall be reviewed and approved by CDFW, USFWS, and the County prior to authorization to commence project activities.

Monitoring: County Public Works staff shall review the survey report(s), and if necessary, the Burrowing Owl Plan, for compliance with this condition prior to the commencement of ground-

disturbing activities and shall perform site inspections throughout the construction period to verify compliance in the field.

MM BIO-4. Worker Environmental Orientation. Prior to the initiation of construction activities associated with the proposed Project, a County-approved biologist shall oversee a worker orientation for all the contractor and/or construction crew (including site supervisors, equipment operators, and laborers) which shall emphasize the presence of sensitive vegetation communities and special-status species within and adjacent to the Project site, identification of those species, applicable regulatory policies and provisions regarding their protection, measures being implemented to avoid and/or minimize impacts, and penalties for noncompliance. No staging of equipment or construction supplies shall occur prior to this worker orientation.

MM BIO-5. Biological Monitor. A County-approved biologist shall be required to monitor vegetation removal and construction. Full-time biological monitoring shall be required during site preparation (e.g., installation of exclusion fencing), vegetation removal, construction, and equipment operation on the beach or dune habitat to ensure compliance with required mitigation measures. The Biological Monitor shall be responsible for clearing the work areas prior to the initiation of construction activities and the equipment accessing the beach, inspection of exclusion fencing/construction BMPs, and ensuring that sensitive habitats are protected during implementation of the proposed Project. Monitoring reports shall be submitted to the County Public Works Division to verify compliance.

Requirements and Timing: County Public Works shall confirm that these biological resources protection measures are be printed on all construction plans and discussed during the pre-construction meeting(s).

Monitoring: County Public Works shall check plans and attend the pre-construction meeting(s) to confirm that these biological resources protection measures are readily understood by the contractor and/or construction crew. County Public Works compliance monitoring staff shall also review the biological monitoring reports and spot-check in the field throughout excavation and construction activities.

MM BIO-6. Avoidance of Native Dune Mat Vegetation. Impacts to native dune vegetation shall be minimized to the maximum extent practicable. Where feasible, fencing shall be used to protect native vegetation from disturbance by equipment. Plywood mats shall be installed where vehicles or equipment need to traverse native dune vegetation to be saved.

Requirements and Timing: County Public Works shall confirm that these biological resources protection measures are printed on all construction plans and discussed during the pre-construction meeting(s).

Monitoring: County Public Works shall check plans and attend the pre-construction meeting(s) to confirm that these biological resources protection measures are readily understood by the contractor and/or construction crew. County Public Works compliance monitoring staff shall also review the biological monitoring reports and spot-check in the field throughout excavation and construction activities. Further, County Public Works shall confirm the issuance of all regulatory permits prior to the initiation of construction activities.

MM BIO-7. Regulatory Permits. Impacts to tidal non-wetland waters require a Section 404 permit from the USACE and a Section 401 Water Quality Certification from the RWQCB in accordance with the CWA. Prior to implementing the proposed Project, the County shall secure the necessary approvals

and permits from USACE and RWQCB. Avoidance, minimization, and/or mitigation measures required by these agencies shall be incorporated into the proposed Project.

Requirements and Timing: County Public Works shall confirm that all required regulatory permits are obtained prior to the initiation of construction activities.

Monitoring: County Public Works shall confirm the issuance of all regulatory permits prior to the initiation of construction activities. County Public Works compliance monitoring staff shall spot-check in the field throughout excavation and construction activities.

3.3.4.6 Residual Impacts

Impact BIO-1. The proposed Project could result in impacts to approximately 0.029-acre of dune mat vegetation, as well as direct impacts to sensitive tidal non-wetland waters (including the sandy beach in the intertidal zone). With implementation of the MM BIO-4 through MM BIO-7, impacts to ESH would be considered *significant but mitigable*.

Impact BIO-2. The proposed Project will result in removal/salvage of six red sand verbena plants to repair the rock revetment. With implementation of MM BIO-1 and MM BIO-4 through MM BIO-7, impacts to rare plant species would be considered *significant but mitigable*.

Impact BIO-3. The proposed Project will temporarily reduce available upland/foraging habitat for terrestrial invertebrates that occupy dune mat vegetation. The proposed Project will also result in impacts to suitable habitat for California legless lizard and burrowing owl. Implementation of MM BIO-3a through MM BIO-3e and MM BIO-4 through MM BIO-7 and reduce the potential for impacts to special-status wildlife species, and impacts would be *significant but mitigable.*

Impact BIO-4. Noise and activity from construction and equipment has the potential to temporarily displace shorebirds (e.g., western snowy plover), seabirds and landbirds by reduces available foraging, resting, and potential breeding habitat. Implementation of MM BIO-2, MM BIO-3e, and MM BIO-4 through MM BIO-7, along with implementation of standard construction BMPs, would reduce temporary impacts to nesting birds such that impacts would be *significant but mitigable*.

Impact BIO-5. The proposed Project would remove 1.92 acres of invasive ice plant and restoration/enhancement of the dune habitat could potentially disturb native dune mat vegetation and special-status wildlife species. Implementation of MM BIO-1, MM BIO-2, MM BIO-3a through MM BIO-3e, MM BIO-4 through MM BIO-7, and would reduce impacts to a *significant but mitigable* degree.

Impact BIO-6. Impacts to the Carpinteria Salt Marsh, a USFWS-designated critical habitat for Ventura marsh milk-vetch and recognized as ESH in the County's CLUP, due to repairs/rebuilding of the seawall. With implementation of MM BIO-1, MM BIO-2, MM BIO-3a through MM BIO-3e, MM BIO-4 through MM BIO-7, and impacts to the Carpinteria Salt Marsh would be *significant but mitigable*.

Section 3.4
Cultural and Tribal Cultural Resources

3.4.1 Introduction

This section describes the environmental and regulatory setting for cultural and tribal cultural resources, evaluates the effects on cultural resources that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and identifies mitigation measures to reduce identified impacts where possible. The information and analysis in this section is based on information from the National Park Service's (NPS's) National Register of Historic Places (NRHP), the NPS's California National Historic Landmarks (NHLs), the Office of Historic Preservation's (OHP's) California Historic Landmarks (CHLs), the Historic Landmark Advisory Commission's (HLAC's) Santa Barbara County Landmarks and County of Santa Barbara Places of Historic Merit.

Cultural resources are the tangible, or intangible remains or traces left by prehistoric or historic peoples and typically include prehistoric and historic archaeological sites and the historic built environment, such as buildings or structures, or traditional cultural places or landscapes. Cultural and tribal cultural resources discussed in this section include three subcategories: 1) historic resources; 2) archaeological resources; and 3) tribal cultural resources, as follows.

1. Historic resources include buildings, structures, and objects of historic or aesthetic importance that amplify the local population's sense of community, enhance perceptions and enjoyment of the community, and provide an important measure of the physical quality of life. When a significant concentration of such resources occurs within a defined geographic space, a historic district may be defined.

2. Archaeological resources represent and document activities, accomplishments, and traditions of previous occupation, and link current and former inhabitants of an area. Archaeological resources may date from the historic or prehistoric period and include physical remains of the past, such as artifacts, manufacturing debris, dietary refuse, and the soils in which they are contained, or areas where prehistoric or historic activity measurably altered the earth.

3. Tribal cultural resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either: 1) included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR); or 2) included in a local register of historical resources as defined in Public Resources Code (PRC) Section 21074. Tribal cultural resources may also include resources determined by the Lead Agency, at its discretion and supported by substantial evidence, to be significant. A cultural landscape that meets these criteria is considered a tribal cultural resource to the extent that the cultural landscape is geographically defined in terms of size and scope.

3.4.2 Environmental Setting

Santa Barbara County has a rich history of habitation dating back 11,000 to 12,000 years ago, including the region's first known inhabitants, the Chumash, some of whom still live in the county today. Native habitation extended through European exploration periods, which began in 1542 with Juan Cabrillo's explorations and establishment of missions in the 1760s. Settlers claimed land in the county through the 1800s as part of the State's Gold Rush, expansion of ranching, and American industrialization, including commercial agriculture and tourism. Agriculture also expanded rapidly in the county, which increased growth of agricultural economies supported by landowners and immigrant populations.

While some of the county, particularly areas of known sensitivity for habitation or use proximate to larger creeks or along the coastline, has been surveyed for cultural resources, most of it has not. Along the county's coastline there will always exist potential for encountering undiscovered archaeological remains; however, much of the county's coastline has been subject to intensive archaeological explorations either due to early review of still extant villages along the coastline of the Gaviota Coast by Rogers (1929) and other early archaeologists or during the major oil development boom of the 1980s, where new oil pipeline construction required extensive archaeological exploration. The inland reaches of the county have generally been subject to much less regular archaeological investigation, unless triggered by a particular development project and therefore may exhibit somewhat higher potential for discovery of unknown sites. Thus, the potential exists for the occurrence of previously unrecorded cultural resources in areas that would support the proposed uses and related development. The prehistory and history of the county are summarized below.

3.4.2.1 Prehistory

Within the Santa Barbara Channel region, the Barbareño Chumash developed a highly complex social system during late prehistory. While it is clear that there are many differences between the Chumash groups living north and south of Point Conception and between the coast and interior, there are some broad patterns of cultural change applicable to all regions.

Early Holocene/Paleocoastal Period (Prior to 6500 B.P.)

Although early archaeological evidence is sparse, several discoveries have led to an understanding of the prehistory of the region. A fluted Clovis point fragment found near the coast on Hollister Ranch is estimated to be approximately 11,000 to 12,000 years old (Erlandson et al. 1987). Human presence became more widespread around approximately 9000 Before Present (B.P.) where these ancient residents inhabited the coast and exploited marine resources prior to the Milling Stone Period (6500 – 3500 B.P.). Very few Paleocoastal sites have been identified, potentially due to relatively small populations and/or loss through erosion and other natural forces. The Paleocoastal Period exhibited low population density and simple technology. Early populations subsisted largely on plants, shellfish, and vertebrate species, with artifact assemblages emphasizing flaked stone tools.

Milling Stone Period (6500 – 3500 B.P.)

The Milling Stone Period is defined by the prevalence of handstones and milling slabs, indicating a reliance on seeds and other plant foods. Milling stones called mutates and manos dated as old as 9000 B.P. have been found in abundance. These milling stones have been interpreted as evidence of a dietary shift to a focus on plant materials such as seeds and nuts, and may also be a sign of food storage

capabilities (Glassow 1996). As such, it is believed that subsistence during the Milling Stone Period consisted of a mixture of plant foods, shellfish, and a limited array of vertebrate species.

Assemblages from this era also contain hammerstones for making flaked tools and for resharpening milling surfaces, small anvils, bone fish gorges, stone sinkers, and other fishing technology. The number, size, and complexity of habitation sites increases dramatically at this time, and sites show substantial variability across the region. Well-developed middens have been associated with this period, suggesting more regular and continuous use of habitation sites; however, small ephemeral campsites marked by just a few handstones or other milling tools are also found during this time.

Archaeological sites within the period from 6,500 to 5,000 years ago are very limited, likely due to environmental changes (Glassow 1996; Lebow et al. 2001).

Early Period (3500 – 600 B.P.)

Cultural changes during the Early Period are thought to have occurred as a result of environmental shifts, rising sea levels, and an increase in the population base. Population densities appear to surge around 5,000 years ago. The response to these changes by people of this period is evidenced by sites that appear more settled, but not permanent, with an increase in specialized sites for resource procurement activities such as hunting, fishing, and plant material processing. As a result of increased population, trade between regions expanded, as evidenced by the presence of exotic shell beads and obsidian materials. Like the Milling Stone Period, ground stone artifacts identified with the Early Period consist of handstones and milling slabs. Toward the end of the period mortars and pestles were added, probably indicating systematic exploitation of acorns. Notched projectile points and the atlatl (throwing stick) appear shortly thereafter as well.

Middle Period (600 B.P. – 1000 A.D.)

The early Middle Period is defined by the continued specialization in resource exploitation, trade, and increased technological complexity. Fishing, sea mammal hunting, and acorn harvesting increased steadily during this time. Use of the single-piece shell fishhook appears during this period, and by 800 years ago the bone-barbed harpoon, large contracting stem chert projectiles, and sewn plank canoe had all come into use (Erlandson 1993; Glassow et al. 1988; Glassow 1996; King 1990; Strudwick 1985). Scholarly opinions regarding the development of a definitively centralized and stratified society differ; however, most agree this cultural change took place late in the Middle Period. Microlithic blades also begin to be found late in this period and are believed to have been used primarily to perforate shells. Smaller projectile points begin to be found from this period, indicating the use of bows and arrows in the region. Both fish and acorns continued to be primary sources of subsistence. The development of mass hunting techniques suggests population pressure on resource collection late in the period.

Middle-Late Transitional Period (1000 – 1250 A.D.)

The absence of imported obsidian after 1000 Anno Domini (A.D.) may reflect changes in trade relationships that are likely associated with a shift in settlement patterns. Middle-Late Transitional Period sites contain a mixture of earlier artifact types. However, the appearance of small leaf-shaped projectile points marks the arrival of the bow and arrow to the region. Although different evaluation methods have produced a different time frame for the development of chiefly status positions, craft specialization, and complex socioeconomic and political systems, profound changes in Chumash

society, economy, and political organization began sometime during the Middle Late Transitional and Late Periods.

Late Period (1300 – 1769 A.D.)

By the Late Period, Chumash culture was most likely very similar to that observed by the Spanish when they arrived. The southern Chumash had developed a complex religious, social, and economic system. Social and political structures continued to increase in complexity. Archaeological investigations indicate an increase in marine and terrestrial species in midden deposits less than 600 years old. The use of temporary camps for resource procurement also increased. Objects of material culture included a wide array of utilitarian and ornamental objects such as arrow points, small bead drills (microlithic blades), various mortar types for milling different foods, *Olivella* shell beads and disk beads, and various other artifacts.

3.4.2.2 Ethnography

Chumash is a name derived from traditional Chumash language that is used by anthropologists to refer to several closely related groups of Native Americans that spoke seven similar languages. The Chumash people lived in central coastal and inland California. Chumash territory has been divided into sections representing the various linguistic subgroups. There is limited information about the geographical limit of the dialects and the purported boundaries are based more on topography. However, it is possible that the territorial divisions may correspond more to catchment areas of the missions for which the groups were named rather than the groups' actual native territories (Kroeber et al. 1911). The Interior and Ineseño Chumash are known to have villages that numbered approximately 100 to 200 individuals, a significantly smaller population, in contrast to the 500 to 1,000 individuals that inhabited settlements along the Santa Barbara Channel (Glassow 1990). In addition to consisting of lower population densities, the inland groups also appeared to have greater seasonal mobility; subsistence focused on acorns and stored food during the winter, and tubers, grass seeds, and bulbs during the spring. Fish provided a high-quality food source in the late summer and early fall, while hunting was best in spring, summer, and fall (Landberg 1965).

Despite being a largely non-agricultural group, the Chumash exhibited a complex society which tied separate villages together by regionally influencing economic, religious, and political systems. Personal rankings were dependent on wealth and social status, occupations were specialized, leadership was hereditary, and it was possible for the chiefdom to span several villages.

The Chumash had a rich material culture consisting of utilitarian items such as fishnets, fishhooks, baskets, stone bowls, canoes (*tomols*) among coastal groups, and projectile points. In addition, some utilitarian objects and religious objects such as charmstones were decorated with shell beads. The decimation of Native American populations and subsequent deterioration of cultural practices as a result of missionization was a profound event in the history of the coastal region. Much information was lost, and the mission records do not provide much insight into the lifeways of the Chumash or other groups of the coastal region prior to contact with Europeans.

3.4.2.3 History

European contact with the Chumash occurred in 1542 A.D. during Juan Cabrillo's explorations. Spanish missionaries began their exploration of California and development of the missions in the 1760s. The Spanish Colonial Period (1769–1822) is marked by establishment of permanent Spanish

settlements. The Santa Barbara Presidio (or military fort) that was founded in 1782 and five Franciscan missions in Chumash territory generated significant disruptions in the existing way of life. The establishment of the Santa Barbara, Santa Ines, and La Purisima Missions led to the incorporation of the Chumash into mission settlements and the gradual depopulation of Chumash villages and settlements. During the Mission Period (1760–1820), some lands held by the missions were granted to Spanish military veterans. These land grants foreshadowed the subsequent Rancho Period (1820–1845) in California.

Following Mexican independence from Spain in 1822, the Mexican government gained control over California. About 500 land grants were given to local rancheros during the Rancho Period. Ranchos are located within Santa Barbara County (County of Santa Barbara Surveyor 2008). Life on the ranchos in many ways resembled life in the Spanish missions. The typical rancho employed between 20 and several hundred Native American workers, many of whom had formerly lived at local missions. The Mexican-American War occurred between 1846 and 1848 and ended with the Treaty of Guadalupe Hidalgo, which made California a U.S. territory. In 1848, the land once occupied by the Chumash was taken possession of by the U.S., which led to California statehood in 1850. The California Gold Rush brought many settlers to the county. During a heavy drought in the 1860s, cattle prices declined and led to the sale of various rancho lands throughout California.

Oil was first discovered in California during the 1860s but did not become a major economic force until the 1890s. George S. Gilbert was among the first men to drill for oil in California when he built a small refinery on the Ojai Ranch in Ventura County in 1861. Experiments with the substance determined that the oil provided a cleaner, cheaper, and more effective fuel source than coal. Oil also provided an alternative to the kerosene shortage that resulted when the outbreak of Civil War interfered with the shipping of supplies from the East.

Ranchos in the South Coast area of Santa Barbara County included Rancho Santa Barbara Pueblo in present day City of Santa Barbara, Montecito, Summerland, and the western extent of the Carpinteria Valley, as well as Rancho el Rincon which encompassed Rincon Point, Rincon State Beach, and present day La Conchita. Carpinteria Valley was largely agricultural and was well known for lima beans, walnuts, lemons, and avocados. lemon growing.

Natural gas and crude oil were first extracted from the Santa Barbara Channel along the coast at Summerland in 1866. In 1902 oil drilling at Summerland's beaches hit its peak. Tourism and settlement steadily rose after the Southern Pacific Railroad completed its track link from Santa Barbara to Los Angeles and San Francisco in 1901.

3.4.2.4 Identified Historic Resources in Carpinteria Valley

The NRHP is the official list of historic districts, sites, buildings, structures, and objects deemed worthy of preservation by the Secretary of the Interior. NHLs are designated nationally significant historic places because they possess exceptional value or quality in illustrating or interpreting the heritage of the U.S. There are 44 historic properties and districts in Santa Barbara County that are listed on the NRHP, including eight NHLs (NPS 2025). No sites listed on the NRHP are located in proximity (within 5 miles) of the Project site. The nearest NRHP site is the Steedman Estate, located approximately 5.6 miles northwest of the Project site.

The CRHR program encourages public recognition and protection of resources and consideration under the California Environmental Quality Act (CEQA). CHLs are buildings, structures, sites, and

places that have been determined to have State-wide historical significance. CHLs are automatically listed in the CRHR. The OHP lists 16 designated CHLs in Santa Barbara County (OHP 2025).

County Historic Landmarks and Places of Historic Merit are designated by the HLAC. Places of Historic Merit are recognized as having historic, aesthetic, or cultural value; however, they are not protected by restrictions on demolition, removal, alteration, or use like Historic Landmarks are, which are recognized at a higher level of historic, aesthetic, or cultural significance. Places, sites, buildings, and structures can be designated as historic if they meet one of more of the County HLAC's specific criteria. There are 63 designated County Historic Landmarks (including six historic trails) and 20 designated County Places of Historic Merit in the county (County of Santa Barbara 2024a, 2024b). Only one County HLAC – the Casa Blanca Poolhouse, located adjacent to the northern end of the Project site – is located in the immediate vicinity of the Project site. The Casa Blanca Poolhouse (42-040912), once owned by Albert K. Isham, is located at 851 Sand Point Road and was designated a historical landmark by the HLAC on November 15, 1989. (See Table 3.4-1 below for a list of CHLs within 5 miles of the Project site.)

Table 3.4-1. Known Historic Sites within 5 miles of the Project Site

Community/City	Distance	Resource Name
Carpinteria	<0.1 mile	Casa Blanca Poolhouse
Montecito	4.9 miles	Canby House
Montecito	4.3 miles	Rancho Las Fuentes Lemon Packing House
Montecito	4.7 miles	Sheldon House
Summerland	3 miles	World War I Monument

Source: County of Santa Barbara 2024, 2025.

The original rock revetment proposed for repair does not meet any of the four historical resource significance criteria listed in CEQA Guidelines Section 15064.5(3)(A-D) to be listed in the CRHR. Per CEQA Guidelines Section 15064.5(3)(A-D), a resource is considered "historically significant" if the resource meets the following criteria:

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

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Though the original rock revetment was built in 1964, making it 61 years old, the revetment has no impact, nor relevance, to any historical events that have occurred since its initial construction. The revetment was originally established to protect the coastal residences that sit along Sand Point Road from sea-level rise, storm events, and shoreline erosion. Since its initial construction, the revetment has also undergone multiple repairs which have altered its original design. As a result, the shoreline protection device no longer mimics its orginal design and does not represent historically relevant characteristics (e.g, design architecture) from the time of its origin.

3.4.2.5 Archaeological and Tribal Cultural Resources

Archaeological resources represent and document activities, accomplishments, and traditions of previous occupation, and link current and former inhabitants of an area. Archaeological resources may date from the historic or prehistoric period and include physical remains of the past such as artifacts, manufacturing debris, dietary refuse, and the soils in which they are contained, or areas where prehistoric or historic activity measurably altered the earth.

Detailed study of archaeological sites is the only method of gaining knowledge and understanding of prehistoric times. Many of the sites as well as the artifacts and the remains within these sites are a sacred part of the heritage, religion, and culture of the Native American community. As archaeological sites are among the most fragile, nonrenewable resources in California, various laws and regulations require the development of property to be accompanied by a rational and respectful concern for the protection of cultural resources (see Section 3.4.3, *Regulatory Setting*).

The county also contains areas of great importance for the study and preservation of the past of the Native Americans of California. Native American tribal cultural sites contain unique, irreplaceable resources significant to the history of the county and the cultural heritage of all humankind. Such sites have a deep, spiritual significance to all Native Americans, especially the native peoples of the State of California, and constitute a precious archaeological and historical heritage. Both CEQA and County policy require preservation and protection of these sites and resources. In 2015, a new class of resource was added to Appendix G of CEQA Guidelines – the tribal cultural resource. Tribal cultural resources are defined as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the CRHR or local register of historical resources, or determined by a lead agency to be significant according to criteria set forth in CEQA.

Archaeological Potential within the Project Area

Several areas of the county have been subject to archaeological exploration including coastal strands (e.g. Gaviota Coast), mountain ridges (e.g. San Marco Pass, Zaca Lake) and valley bottoms (e.g. Upper Santa Ynez River, Solvang). The information regarding archaeological site locations is sensitive and cannot be viewed by the public. Past archaeological explorations do not provide complete or adequate information for specific project areas since most of the county has not been surveyed for archaeological resources. When surveys have occurred, they have been primarily associated with specific development applications, which are often in urban areas. Density of archaeological sites tends to vary according to the environment. There are two classes of archaeological site density: 1) High Density, which is greater than one site per square mile; and 2) Low Density, which is less than one site per square mile. It is probable that the entire coastline of the county can be linked into one large High-Density zone.

A 1929 archaeological investigation found that the Carpinteria Marsh Area was once inhabited by Native American cultures, concluding with the Chumash people (City of Carpinteria 2003). There are large tarry asphalt deposits beneath the beach and cliff area east of Carpinteria Creek which were used by the Chumash to seal their canoes and cooking utensils. Additionally, the nearby Carpinteria State Beach is known to have once been the location of a Chumash village, named Mishopshnow. This village was a center for canoe construction, called tomols. As such, potential exists for archaeological sites to occur within the vicinity of the Project site.

On May 27, 2025, WSP USA Inc. (WSP) archaeologist Michael Amorelli requested a cultural resources records search from the Central Coast Information Center (CCIC) of the CHRIS, located at the Santa Barbara Museum of Natural History. On May 28, 2025, Aria James, Assistant Coordinator of the CCIC returned results. The records search results indicate that 51 previous studies have been conducted within a 0.5-mile radius of the Project site. Of these previous studies, 12 overlap portions of the Project site (see Table 3.4-2). The CHRIS records search also indicated that five previously recorded resources were identified within a 0.5-mile radius of the Project site (see Table 3.4-3). No recorded resources were identified within the Project site. As described in Section 3.7, *Hydrology, Water Quality, and Coastal Processes*, the shoreline fronting the revetment has experienced substantial erosion following the development of the Santa Barbara Harbor. This coastal erosion, along with development of single-family residential properties on the landward side of the revetment has likely disturbed or destroyed any potential resources within the Project site.

Table 3.4-2. Previous Cultural Resource Studies in the Project Area

Report Number	Author	Year	Title
SR-00600	Snethkamp, Pandora E. and Brian D. Haley	1988	Letter Report: Phase 1 and 1A Archaeological Survey Parcel "B", A.P.N. 005-460-44, Casa Blanca, Sandyland, California
SR-00850	Wilcoxon, Larry R.	1974	An Archaeological Reconnaissance of the Carpinteria Valley Watershed Project
SR-03322	Victorino, Ken	2003	Letter Report for Phase 1 Archaeological Survey, Carpinteria Salt Marsh Enhancement Plan
SR-04771	Stone, David and Ken Victorino	2010	Extended Phase 1 Archaeological Investigation, Avenue Del Mar and Sand Point Road, Carpinteria Sanitary District Septic to Sewer Project, Carpinteria, California
SR-05233	Stone, David	2014	Extended Phase 1 Archaeological Investigation, 501 Sand Point Road, Carpinteria, California
SR-05810	Leftwich, Brent	2018	Phase I Archaeological Assessment: 501 Sand Point Road, Carpinteria, Santa Barbara, California. APN: 004-098-011
SR-05812	Leftwich, Brent	2018	Phase I Archaeological Assessment: 607 Sand Point Road, Carpinteria, Santa Barbara, California. APN: 004-098-006, Case No: 18CDH-00000-00013
SR-05815	Leftwich, Brent	2018	Phase I Archaeological Assessment: 711 Sand Point Road, Carpinteria, Santa Barbara, California. APN: 005-460-046, Case No: 17CDH-00000-00014
SR-05816	Leftwich, Brent	2018	Phase I Archaeological Assessment: 755 Sand Point Road, Carpinteria, Santa Barbara, California. APN: 005-460-043, Case No: 14APL-00000-00010
SR-05894	Letter, Rachael J.	2019	Cultural Resources Constraints Analysis, Carpinteria Salt Marsh Enhancement Plan, Santa Barbara County
SR-06310	Leftwich, Brent	2020	Phase I Archaeological Assessment: 791 Sand Point Road, Carpinteria, Santa Barbara, California. APN: 005-460-024, Case No: PENDING

Table 3.4-2. Previous Cultural Resource Studies in the Project Area (Continued)

Report Number	Author	Year	Title
SR-06313	Leftwich, Brent	2022	Phase I Archaeological Assessment: 645 Sand Point Road, Carpinteria, Santa Barbara, California. APN: 004-098-003, Case No: 21CDH-00000-00045

Table 3.4-3. Previously Recorded Resources within the Vicinity of the Project

Resource Number	Recorder/ Affiliation	Year	Description	Distance from Project Area
42-000008/CA-SBA-8	David Banks Rogers Larry Spanne Larry Wilcoxon Ken Victorino, SAIC	1929 1968 1974 2002	Canalino Village Site	<0.1 mile
42-038276	J.D. Tordoff, Caltrans	1989	Shell midden	0.3 mile
42-040790	Gloria Scott, Caltrans	1989	Historic cottage complex	0.3 mile
42-040791	Gloria Scott, Caltrans	1990	Historic commercial complex (Santa Claus Lane)	<0.1 mile
42-040912	Frank David Serena, Frank Serena Construction & Development Inc.	1989	Casa Blanca Poolhouse	<0.1 mile

Though no previously recorded resources were identified within the Project site, two resources were identified in the immediate vicinity. “An extensive Canalino village site” (CA-SBA-8) was documented and recorded by David Banks Rogers in his 1929 book *Prehistoric Man of the Santa Barbara Coast*, where Rogers suggests that it is the village of *Teneknes,* documented by Kroeber a few years prior.

Native American Heritage Commission Sacred Lands File

The California Native American Heritage Commission (NAHC) is a nine-member body whose members are appointed by the Governor. The NAHC identifies, catalogs, and protects Native American cultural resources – ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The Sacred Lands File (SLF) is the NAHC's private inventory of spiritually and culturally significant sites in California. Generally speaking, a SLF search assists in determining if any known properties of traditional cultural value are located within or adjacent to a given area, though negative results do not preclude the existence of such sites.

On June 5, 2025, WSP USA Inc. archaeologist Michael Amorelli requested a search of the SLF from the NAHC. On June 10, 2025, Matthew Lin, Cultural Resource Analyst of the NAHC, returned results of the SLF search, as well as a contact list, identifying 12 Native American representatives from 6 California Native American bands of Chumash affiliation and descent to notify of the proposed Project. These individuals include:

- Ms. Barbara Lopez, Cultural Resource Chair of the Barbareño Band of Chumash Indians
- Ms. Eleanor Fishburn, Chairperson of the Barbareño Band of Chumash Indians
- The Cultural Resource Committee of the Barbareño/Ventureño Band of Mission Indians
- Mr. Julio Quair, Chairperson of the Chumash Council of Bakersfield
- Mr. Mati Waiya, Tribal Chair of the Coastal Band of the Chumash Nation
- Mr. Michael Khuz-Zarate, Vice Chairman of the Coastal Band of the Chumash Nation
- Ms. Janet Hall, Cultural Resources Manager of the Coastal Band of the Chumash Nation
- Ms. Violet Walker, Chairperson of the Northern Chumash Tribal Council
- Ms. Wendy Teeter, Cultural Resources Archaeologist of the Santa Ynez Band of Chumash Indians
- Ms. Nakia Zavalla, Tribal Historic Preservation Officer of the Santa Ynez Band of Chumash Indians
- Mr. Sam Cohen, Government & Legal Affairs Director for the Santa Ynez Band of Chumash Indians
- The General Cultural Resource Management Consultation Account of the Santa Ynez Band of Chumash Indians.

The results of the SLF were positive, indicating that the Project area is sensitive for the presence of Tribal Cultural Resources and that all culturally affiliated tribes should be notified and invited to share their knowledge of resources that may be adversely impacted as a result of the proposed Project.

Tribal Cultural Resources Consultation

To date, Santa Barbara County has received two tribal requests, from the Barbareño/Ventureño Band of Mission Indians and the Santa Ynez Band of Chumash Indians, for consultation to participate in government-to-government consultation pursuant to Public Resources Code (PRC) Section 21080.3.1 and in accordance with the provisions of Assembly Bill (AB) 52.

On September 3, 2025, the County emailed and on September 4, 2025, the County mailed letters to representatives of the Coastal Band of the Chumash Nation, the Chumash Council of Bakersfield, the yak tidy tityu yak tilhini – North Chumash Tribe, the Santa Ynez Bank of Chumash Indians, and the Barbareño Band of Chumash Indians. The letters described the components of the proposed Project and requested input from these individuals and organizations.

3.4.3 Regulatory Setting

This analysis was conducted in conformance with the goals and policies of Federal, State, and local regulations. The following section summarizes the most applicable policies and regulations which would relate directly to future proposed uses and related development under the proposed Project and its associated impacts.

3.4.3.1 Federal

National Register of Historic Places

The NRHP was established by the National Historic Preservation Act (NHPA) to help identify and protect properties that are significant cultural resources at the Federal, State, and/or local levels. Listing of private property on the NRHP does not prohibit the property owner from taking actions that may result in the alteration or demolition of the historic resource. Certain provisions of the Tax Reform Act that encourage the preservation of depreciable historic structures by allowing favorable tax treatments for rehabilitation, and discourage destruction of historic buildings, may apply. Four criteria have been established to determine if a resource is significant to American history, architecture, archaeology, engineering, or culture and should be listed in the NRHP.[1] These criteria include:

A. It is associated with events that have made a significant contribution to the broad patterns of our history;

B. It is associated with the lives of persons significant in our past;

C. It embodies the distinctive characteristics of a type, period, or method of construction that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;

D. It yields, or may be likely to yield, information important in prehistory or history.

Districts, sites, buildings, structures, and objects of potential significance that are at least 50 years of age must meet one or more of the above criteria to be eligible for listing in the NRHP. However, the NRHP does not prohibit the consideration of properties less than 50 years of age whose exceptional contribution to the development of American history, architecture archeology, engineering, and culture can be demonstrated under NRHP Criteria Consideration G (Properties that have Achieved Significance within the Past 50 Years).

In addition to the above criteria, a property must have integrity, which is defined as: "…the ability of a property to convey its significance." The seven aspects of integrity include location, design, setting, materials, workmanship, feeling, and association.

3.4.3.2 State

California Register of Historic Resources

The State of California Historical Resources Commission has designed the CRHR for use by State and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The CRHR is the authoritative guide to the State's significant historical and archaeological resources.

[1] "Guidelines for Completing National Register of Historic Places Forms: Part A – How to Complete the National Register Registration Forms," National Register Bulletin 16A, U.S. Department of Interior, National Park Service, 1997. This bulletin contains technical information on comprehensive planning, survey of cultural resources and registration in the NRHP.

Under California law, cultural resources are protected by PRC Section 5024.1, which established the CRHR. PRC Section 5024 requires State agencies to provide notice to, and to confer with the State Historic Preservation Office (SHPO) before altering, transferring, relocating, or demolishing State-owned resources.

The CRHR encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for State and local planning purposes; determines eligibility for State historic preservation grant funding; and affords certain protections under CEQA. The following criteria are utilized when determining if a resource has architectural, historical, archaeological, or cultural significance.

- Criterion 1: Is the resource associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the U.S.?
- Criterion 2: Is the resource associated with the lives of persons important to local, California, or national history?
- Criterion 3: Does the resource embody the distinctive characteristics of a type, period, region, method of construction, or represent the work of a master or possesses high artistic values?
- Criterion 4: Has the resource yielded, or have the potential to yield, information important to the prehistory or history of the local area, California, or the nation?

These factors are broadly mirrored in criteria for historic significance within CEQA, CRHR, and the County Code.

California Environmental Quality Act

CEQA Guidelines Section 15064.5 states that a resource shall be considered "historically significant" if it meets any of the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 California Code of Regulations [CCR], Section 4852). The criteria used for assessing eligibility for the CRHR are listed above. Cultural resources meeting one or more of these criteria are defined as "historical resources" under CEQA. Included in the definition of historical resources are prehistoric archaeological sites, historic archaeological sites, historic buildings and structures, traditional cultural properties important to a tribe or other ethnic group, cultural districts and landscapes, and a variety of other property types.

Resources included in a local register of historical resources (pursuant to PRC Section 5020.1[k]) or identified as significant in a historical resources survey (meeting the criteria in PRC Section 5024.1[g]) also are considered "historical resources" for the purposes of CEQA.

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, or not identified in a historical resources survey, does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1l.

California Historical Landmarks

CHLs are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific/technical, religious, experimental, or other value and that have been determined to have State-wide historical significance by meeting at least one of the criteria listed

below. The resources also must be approved for designation; be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks.

To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

1. It is the first, last, only, or most significant of its type in the State or within a large geographic region.
2. It is associated with an individual or group having a profound influence on the history of California.
3. It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest (PHIs) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific/technical, religious, experimental, or other value. The PHI designation is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a PHI, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region.
- It is associated with an individual or group having a profound influence on the history of the local area.
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

Assembly Bill 52

AB 52 amended PRC Section 5097.94 (CEQA) and added eight new sections to the PRC relating to Native Americans. It was passed and signed into law in 2014 and took effect on July 1, 2015. This law establishes a new category of resource called tribal cultural resources (PRC Section 21074) and establishes a process for consulting with Native American tribes and groups regarding those resources. The consultation process must be completed before a CEQA document can be certified. Native American tribes to be included in the process are identified through consultation with the NAHC (PRC Section 21080.3.1).

Tribal cultural resources are "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe…" (PRC Section 21074.1). A tribal cultural resource must be on, or eligible for, the CRHR as described above for historical resources, or must be included in a local register of historical resources. Additionally, as discussed above for historical resources, the lead agency can determine that a tribal cultural resource is significant even if it has not been evaluated as eligible for the CRHR or is not on a local register.

AB 52 establishes that "[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" (PRC Section 21084.2). It further states that the lead agency shall establish measures

to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

Senate Bill 18

Passed in 2004, Senate Bill (SB) 18 requires cities and counties to consult with Native American tribes to help protect traditional tribal cultural places as part of a general plan adoption or amendment. Unlike AB 52, SB 18 is not an amendment to, or otherwise associated with, CEQA. Instead, SB 18 requires that, prior to the adoption or amendment of a city's or county's general plan, the city or county must conduct consultations with California Native American tribes for the purpose of preserving specified places, features, and objects that are located within the city's or county's jurisdiction. Under SB 18, cities and counties must notify the appropriate Native American tribe(s) of intended adoption or amendments to general plans and offer the opportunity for the tribe(s) to consult regarding traditional tribal cultural places within the proposed plan area. A Native American tribe is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the Native American Heritage Commission" (Governor's Office of Planning and Research [OPR] 2005). Traditional tribal cultural places are defined in PRC Sections 5097.9 and 5097.993 to include sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines, or any historic, cultural, or sacred site that is listed on or eligible for the CRHR including any historic or prehistoric ruins, burial grounds, or archaeological site (OPR 2005).

California Coastal Act

The California Coastal Commission is tasked with the protection of coastal resources, including those having prehistoric, historic, and cultural importance within the Coastal Zone. California Coastal Act Section 30244 seeks to minimize the adverse impacts to historical and archaeological resources within the Coastal Zone by requiring mitigation of adverse impacts to these resources by any development. It states that where development would adversely impact archaeological resources as identified by the SHPO, reasonable mitigation measures shall be required.

Native American Historic Resource Protection Act

PRC Sections 5097.993-5097.994 establish as a misdemeanor, punishable by both fine and imprisonment, the unlawful and malicious excavation, removal or destruction of Native American archeological or historic sites on public lands or on private lands. Certain legal acts by landowners are exempt (NAHC 2025).

Archaeological, Paleontological, and Historical Sites; Native American Historical, Cultural, and Sacred Sites (Public Resources Code Section 5097-5097.994)

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of Native American human remains on non-Federal public lands. PRC Section 5097.9 states that no public agency or private party on public property shall *"interfere with the free expression or exercise of Native American Religion."* The PRC further states:

> *"No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine…except on a clear and convincing showing that the public interest and necessity so require."*

Codes Governing Human Remains

CEQA Guidelines Section 15064.5 also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. The disposition of human remains is governed by the California Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98 and falls within the jurisdiction of the NAHC. If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment or disposal.

3.4.3.3 Local

Santa Barbara County Comprehensive Plan

The County's Comprehensive Plan (inclusive of all mandatory and optional elements) contains policies which address cultural resources. The consistency of the proposed Project with these policies is discussed in Section 3.8, *Land Use and Planning*.

The Land Use Element

The County requires protection of significant archaeological and historic resources to the greatest extent possible. The Land Use Element contains the following Historical and Archaeological Sites Policies:

1. All available measures (e.g., purchase, tax relief, purchase of development rights) shall be explored to avoid development on significant historic, prehistoric, archaeological, and other classes of cultural sites.
2. When developments are proposed for parcels where archaeological or other cultural sites are located, project design shall be required which avoids impacts to such cultural sites if possible.
3. When sufficient planning flexibility does not permit avoiding construction on archaeological or other types of cultural sites, adequate mitigation shall be required. Mitigation shall be designed in accord with guidelines of the OHP and the NAHC.
4. Off-road vehicle use, unauthorized collection of artifacts, and other activities other than development which could destroy, or damage archaeological or cultural sites shall be prohibited.
5. Native Americans shall be consulted when development proposals are submitted which impact significant archaeological or cultural sites.

The Conservation Element

The Comprehensive Plan Conservation Element (adopted 1979, amended and republished 2010) describes the historic and archaeological setting of the county and lists resources that are known to be present or potentially present in the county. The Conservation Element also recommends ways in which archaeological studies may be incorporated into projects:

1. Archaeological sites may be incorporated into parks or landscaped areas in such a way that no damage will be done to the archaeological materials.
2. Areas with archaeological sites may also be designated as limited use areas where they can be protected from vandalism. For either of these first two alternatives, a preliminary survey and surface collection by a competent archaeologist must be carried out prior to any action. Buffer zones adjacent to these sites may be necessary, but the extent of such a zone must be determined for each site.
3. Outdoor museums are a feasible alternative to destruction when the nature of the archaeological remains is such that their careful excavation and preservation by professionals would prove attractive to the public. This alternative would be of value to the public relations of many private firms and would serve to increase the awareness of the County's prehistory among both residents and tourists. A museum of this sort might consist of a simple tin roof and fence protecting ongoing or completed excavations and appropriate displays of artifacts. Painted Cave is an example of how this approach has been implemented in Santa Barbara County.
4. One method of preserving sites for future archaeological investigation is through the use of extensive land fill. If sites scheduled for possibly damaging use could be covered with sufficient clean fill to avoid damage, such sites would be preserved.
5. Salvage excavation is a last resort in the "preservation" of archaeological information. Such short notice excavations destroy relevant information which might be more effectively excavated with future improved archaeological methods and techniques. In salvage archaeology, it frequently is impossible to generate an adequate research design before excavation is commenced. Considering these factors, the loss of valuable information is inevitable. In addition, salvage operations are expensive undertakings. Consequently, every effort should be made to preserve, rather than excavate endangered archaeological sites.

Santa Barbara County Land Use and Development Code

Section 35.60.040 of the County's Land Use and Development Code (LUDC) contains the following standards addressing archaeological resources:

A. Development proposed on a lot where archaeological or other cultural sites are located shall be designed to avoid impacts on the cultural sites if possible.

B. When sufficient planning flexibility does not permit avoiding construction on an archaeological or other cultural site, adequate mitigation shall be required. Mitigation shall be designed in compliance with the guidelines of the State OHP and the State NAHC.

C. Native Americans shall be consulted when development proposals are submitted that impact significant archaeological or cultural sites.

D. All available measures (e.g., purchase of the site, tax relief, purchase of development rights) shall be explored to avoid development on significant historic, prehistoric, archaeological, and other classes of cultural sites.

Planning permit requirements for demolition and replacement in-kind of an existing and conforming structure are exempt under Section 35.20.040 of the LUDC if the structure is less than 50 years old or if the Director or the HLAC has determined that a structure that is 50 years old is not historically significant. Additionally, a structure that has been declared to be a historical landmark in compliance

with a resolution of the Board may be enlarged, extended, reconstructed, relocated, and/or structurally altered provided the County HLAC has reviewed and approved the proposed structural alterations and has determined that the proposed structural alterations will help to preserve and maintain the landmark in the long-term (LUDC Section 35.101.020).

Coastal Land Use Plan

The County's Coastal Land Use Plan (CLUP) contains the following policies addressing cultural resources:

Policy 10-1: All available measures (e.g., purchase, tax relief, purchase of development rights) shall be explored to avoid development on significant historic, prehistoric, archaeological, and other classes of cultural sites.

Policy 10-2: When developments are proposed for parcels where archaeological or other cultural sites are located, project design shall be required which avoids impacts to such cultural sites if possible.

Policy 10-3: When sufficient planning flexibility does not permit avoiding construction on archaeological or other types of cultural sites, adequate mitigation shall be required. Mitigation shall be designed in accord with guidelines of the State OHP and the State of California NAHC.

Policy 10-4: Off-road vehicle use, unauthorized collecting of artifacts, and other activities other than development which could destroy, or damage archaeological or cultural sites shall be prohibited.

Policy 10-5: Native Americans shall be consulted when development proposals are submitted which impact significant archaeological or cultural sites.

Policies 10-2, 10-3, and 10-5 are also contained in Article II, Coastal Zoning Ordinance (CZO) Section 35-65.

The CLUP sets forth the following recommendations to ensure that important historical sites in the Coastal Zone are protected:

1. The County should undertake an inventory of historical sites in the unincorporated areas of the County.
2. Significant sites should be designated as landmarks by the County Advisory Landmark Committee and restrictions imposed as currently permitted by County Ordinance No. 1716.
3. Historic sites of national significance should be nominated for landmark status by the NHLs Project and the NRHP. Those of State-wide significance should be nominated for inclusion on the register of CHLs.

Owners of historical sites meeting the criteria specified in Government Code Sections 50280-50289 should be encouraged to enter into historical properties contracts with the county (the contract gives the owner the benefit of assessment based on restricted use of the property) it insures permanent preservation of significant sites.

Coastal Zoning Ordinance

Article II of Chapter 35 of the County Code consists of the Santa Barbara County Coastal Zoning Ordinance (CZO), published January 2014 and updated May 2021. Section 35-65 of the CZO includes

the following policies that protect archaeological resources, as well as Policies 10-2, 10-3, and 10-5 from the CLUP:

1. When developments are proposed for lots where archaeological or other cultural sites are located, project design shall be required which avoids impacts to such cultural sites if possible.
2. When sufficient planning flexibility does not permit avoiding construction on archaeological or other types of cultural sites, adequate mitigation shall be required. Mitigation shall be designed in accord with guidelines of the OHP and the NAHC.
3. Native Americans shall be consulted when development proposals are submitted which impact significant archaeological or cultural sites.

County Landmarks and Places of Historic Merit Lists

The County maintains two local registers that identify local historic resources: the Santa Barbara County Landmarks list, and the Places of Historic Merit list. Both are maintained by HLAC. The HLAC serves to preserve and protect places, sites, buildings, structures, works of art, and other objects having a special historic or aesthetic character or interest, for the use, education, and view of the general public and to remind the citizens of the county and visitors of background of the county.

Pursuant to CEQA statute 21074(a)(1)(B) and CEQA Guidelines Section 15064.5(a)(2), any resource listed in a local register of historical resources is presumed to be a significant historical resource. As provided in County Code Chapter Section 18A-3, a place, site, building, structure, or object may be eligible for designation as a place of historic merit or landmark if:

a. It exemplifies or reflects special elements of the county's cultural, social, economic, political, archaeological, aesthetic, engineering, architectural, or natural history.
b. It is identified with persons or events significant in local, State, or national history.
c. It embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship.
d. It is representative of the work of a notable builder, designer, or architect.
e. It contributes to the significance of a historic area, being a geographically definable area possessing a concentration of historic, prehistoric, archaeological, or scenic properties, or thematically related grouping of properties, which contribute to each other and are unified aesthetically by plan or physical development.
f. It has a location with unique physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the County of Santa Barbara.
g. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation.
h. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particularly transportation modes or distinctive examples of park or community planning.
i. It is one of the few remaining examples in the County, region, State, or nation possessing distinguishing characteristics of an architectural or historical type or specimen.

The designation of a landmark or a historic place alone does not place the property under special requirements or conditions of use, nor does it require repair or renovation of the premises. However, the HLAC may require maintenance of the premises as a condition for continued recognition of the historic merit of the premises. Under Section 18A-5, the following provides a summary of special conditions may be imposed on designated Landmarks:

a. Demolition, removal or destruction, partially or entirely, may be prohibited unless consent in writing is first obtained from the HLAC.

b. Alterations, repairs, additions, or changes, other than normal maintenance and repair work shall not be made unless and until all plans have been reviewed and approved or modified by the HLAC and reasonable conditions imposed as deemed necessary. All such work shall be done under the direction and control of the HLAC. Decisions of the HLAC may be appealed to the County Board of Supervisors.

c. That only certain specified uses may be made, or that certain specified uses shall be prohibited.

d. No buildings or structures exposed to public view within a specified distance may be placed, erected, moved in, altered, enlarged or removed (other than normal maintenance and repair work) without approval, with reasonable conditions imposed, where deemed necessary, by the HLAC.

e. Other reasonable requirements, restrictions, or conditions to meet special or unique circumstances.

3.4.4 Environmental Impact Analysis

This section discusses the potential impacts to cultural resources and tribal cultural resources associated with the proposed Project. Where there are potentially significant or significant and unavoidable impacts, mitigation measures are proposed and the residual impact after mitigation is determined.

3.4.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For the purposes of this Environmental Impact Report (EIR), implementation of the proposed Project may have a significant adverse impact relating to cultural resources if it would:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

d) Disturb any human remains, including those interred outside of dedicated cemeteries

Further, implementation of the proposed Project may have a significant adverse impact relating to tribal cultural resources if it would:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or 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:

   i. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC section 5020.1(k); or

   ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

County of Santa Barbara Environmental Thresholds and Guidelines

The County's *Environmental Thresholds and Guidelines Manual* (2024) provides guidance for assessing the significance or importance of archaeological, historical, and tribal cultural resources. For determining the significance of impacts under CEQA, the County's thresholds defer to the thresholds of CEQA. Specifically, the significance of impacts on cultural resources should be evaluated pursuant to CEQA Sections 21084.1 and Section 15064.5. The significance of impacts to tribal cultural resources should be evaluated pursuant to CEQA Section 21084.2.

Methodology

The investigation of potential impacts to cultural resources and tribal cultural resources included records searches and review of local histories to determine: (i) if known historical resources have previously been recorded within a 0.25-mile radius of the Project site; (ii) if the Project site has been systematically surveyed by historians prior to the initiation of the study; and/or (iii) whether there is other information that would indicate whether or not the Project site or the surrounding vicinity is historically sensitive or may pose indirect impacts to adjacent historic resources.

As previously described in Section 3.4.2.5, *Archaeological and Tribal Cultural Resources*, WSP archaeologist Michael Amorelli requested a cultural resources records search from the CCIC of the CHRIS, located at the Santa Barbara Museum of Natural History. These results as summarized in Tables 3.4-1 through -3 and described in their entirety in Appendix G.

3.4.4.2 Project Impacts

Table 3.5-4 provides a summary of the proposed Project's impacts related to cultural and tribal cultural resources. A detailed discussion of each impact follows.

Table 3.5-4. Summary of Cultural and Tribal Cultural Resources Impacts

Cultural and Tribal Cultural Resource Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact CTCR-1. The proposed Project could occur in or near previously unevaluated historic properties and could cause physical demolition, destruction, relocation, or alteration of historical resources.	No Impact	No mitigation required	No Impact
Impact CTCR-2. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant archaeological resources.	Potentially Significant	MM CTCR-1 (Stop Work at Encounter)	Significant but Mitigable
Impact CTCR-3. The proposed Project could disrupt human remains, including those interred outside of dedicated cemeteries.	Potentially Significant	MM CTCR-1 (Stop Work at Encounter) MM CTCR-2 (Encountering Human Remains)	Significant but Mitigable
Impact CTCR-4. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant tribal cultural resources.	Potentially Significant	MM CTCR-1 (Stop Work at Encounter)	Significant but Mitigable
Cumulative Impacts	Potentially Significant	MM CTCR-1 (Stop Work at Encounter) MM CTCR-2 (Encountering Human Remains)	Significant but Mitigable

Impact CTCR-1. The proposed Project could occur in or near previously unevaluated historic properties and could cause physical demolition, destruction, relocation, or alteration of historical resources.

As summarized in Section 3.4.2.4, *Identified Historic Resources in Carpintera Valley*, there are 44 NRHP-listed historic propoerties and districts, eight NHLs, 16 CHLs, 63 County-designated historic landmarks, and 20 County-designated places of historic merit within Santa Barbara CountyHowever, only one site, the County-designated Historic Landmark Casa Blanca Poolhouse, is located within or immediately adjacent to the Project site or vicinity.



The Casa Blanca Poolhouse is located at 851 Sand Point Road and was designated a historical landmark by the HLAC on November 15, 1989. The pool house was designed in the Moorish style by architect George Washington Smith in 1927. The exterior is white stucco with tile door friezes, domes, and minarets.

Construction activities associated with the proposed Project would involve the staging and use and operation of heavy construction equipment in close proximity to the Casa Blanca Poolhouse, which is located at the northern end of the Project site. For example, equipment and material staging for the proposed Project, including future maintenance activities, would occur on two existing vacant

lots located at 865 Sand Point Road, which is located within 500 feet of the Casa Blanca Poolhouse. However, indirect impacts associated with construction activities (e.g., temporary noise and/or views resulting from the presence of construction equipment and materials) would be short-term and temporary, lasting for a period of 6 to 7 months, and would not affect the character defining features of the Casa Blanca Poolhouse (e.g., its Moorish architecural style). The proposed Project would not involve the physical demolition, destruction, relocation, or alteration of the Casa Blanca Poolhouse or any other previously unevaluated historic properties. Ground disturbance and physical improvements associate with the proposed Project would be limited to the repair and reconstruction of an existing rock revetment, which does not qualify as a historic property.

Therefore, the proposed Project would have *no impact* on historical resources.

Impact CTCR-2. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant archaeological resources.

As described in Section 3.4.2.5, *Archaeological and Tribal Cultural,* the coastline of Santa Barbara County is considered to most likely be one large High-Density Zone based on previously conducted survey evidence.

Previous construction at the Project site, aside from the revetment's initial development, included multiple repairs to the structure throughout 1982 and 1983 in response to the severe winter storms, and in 1994 and 1998 in response to continued exposure to periodic storm events. Each of these repair projects, which involved repairs such as raising and widening the crest, increasing the armor rock size, extending the seaward slope, and constructing a landward splash wall and swale, included various levels of excavation and/or ground disturbance. Consequently, given the historic extent of development and disturbance that has occurred at the Project site, the potential for presence of intact archaeological at the Project site is considered very low.

While these past construction events may have disturbed much of the land area around Project site, the proposed Project involves repairing the 3,700-foot-long revetment by restoring the structure to its 1983 design and implementing several other improvements along the revetment, such as demolition and reconstruction of lateral stairways, dune vegetation enhancement, and future maintenance actions, which would result in minor ground disturbance. Repair work involving excavation would include: minor re-working of the revetment (e.g., shifting of armor rock); removing and subsequently replacing old armor rock with new (imported) armor rock to fill existing voids; and, demolishing 12 existing private stairways (utilized for private beach access from residential properties) and restoring the rock revetment in the stairs' previous locations. The estimated depth of ground disturbance would be up to 10 feet depending on sand conditions on the beach and the extent that the revetment toe is buried. These repairs would occur in various locations across the 5.52-acre Project site. Other disturbances that would only affect previously disturbed areas within the revetment footprint would include approximately 1.5 acres of non-native vegetation removal.

Only one of the three proposed staging area locations would be located on an undeveloped and unpaved parcel located on the landward side of the rock revetment. Though no ground disturbing activities are proposed at the staging area, construction equipment and material storage, along with foot traffic from construction workers, may also have the potential to disturb previously undisturbed land.

While the potential to encounter intact archaeological resources during construction activities is very low due to previous construction activities involving ground disturbance, development of the

proposed Project could result in *potentially significant* impacts to undisturbed subsurface archaeological resources. To address this potential impact, MM CTCR-1 (Stop Work at Encounter) would be required to ensure that in the event of any inadvertent discoveries during construction and maintenance activities, resources are properly analyzed, protected, and curated. As a result, archaeological resources would be protected and preserved, and impacts would be reduced to a *significant but mitigable* level.

Impact CTCR-3. The proposed Project could disrupt human remains, including those interred outside of dedicated cemeteries.

As described in Impact CTCR-2, the Project site is located on what is believed to be a High-Density Zone and is surrounded by areas which have identified tribal cultural and archaeological significance. Because the Project site has been largely disturbed as a result of development of shoreline residences, the original construction of the shoreline revetment and its repairs, and historic and ongoing coastal erosion, the possibility of discovering cultural resources, including human remains, is considered very low but not impossible. Construction activities that would have a greater potential of disturbing undiscovered human remains involve minor forms of ground disturbance of up to 10 feet below ground (beach sand) level. These proposed repairs would occur in various locations across the 5.52-acre Project site. Thus, *potentially significant* impacts on human remains could occur. If in the unlikely event that previously unidentified human remains are discovered, further disturbances and construction activities shall stop in any area or nearby area suspected to overlie remains in accordance with State Health and Safety Code Section 7050.5, and the Santa Barbara County Coroner would be contacted in accordance with Title 14, CCR Section 15064.5(I). Pursuant to PRC Section 5097.98, if the coroner determines that the human remains are of Native American origin, the NAHC would be notified. Arrangements for the human remains would be made, and further provisions of PRC Section 5097.98 are to be followed as applicable. Further, the required implementation of MM CTCR-1 and MM CTCR-2 would reduce impacts to a *significant but mitigable* level.

Impact CTCR-4. The proposed Project could cause disruption, alteration, destruction, or adverse effects on significant tribal cultural resources.

As described under Impact CTCR-2, the Project site is located on what is believed to be a High-Density Zone and is surrounded by areas which have identified tribal cultural artifacts and significance. Specifically, the surrounding vicinity of the proposed Project site has evidence of tribal cultural resources. The County has not received requests from any Native American tribe for government-to-government consultation associated with the proposed Project, pursuant to PRC Section 21080.3.1 and AB 52. Nevertheless, this analysis considered the potential for tribal cultural resources to be affected by the proposed Project based on available resources and information.

As detailed in Impact CTCR-2, the Project site is located on what is believed to be a High-Density Zone and is surrounded by areas which have identified tribal cultural significance. While no specific developments or sites are identified at or near the Project site, Project activities involving minor forms of ground disturbance (e.g., addressing areas where armor rock has been dislodged) could uncover and/or disturb these resources. Thus, *potentially significant* impacts to tribal cultural resources could occur during Project activities. To address this potential impact, MM CTCR-1 would be required to ensure that in the event of any inadvertent discoveries during construction and maintenance activities, resources are properly analyzed, protected, and curated. As a result, tribal cultural resources would be protected, and impacts would be reduced to a *significant but mitigable* level.

3.4.4.3 Cumulative Impacts

As described in Section 3.0.6, *Cumulative Impact Analysis*, cumulative projects within the County range from recently adopted long-range development plans, such as the 2023-2031 Housing Element Update, to proposed and pending individual development projects. These cumulative projects could impact cultural, historic, and tribal cultural resources within the county and within the vicinity of the project site in combination with the proposed Project.

As previously described in Impact CTCR-1 and Impact CTCR-2, while unlikely, minor ground disturbing activities associated with the proposed Project could uncover previously unknown archaeological and/or tribal cultural resources. However, the proposed Project requires that proposed construction activities, specifically including those involving ground disturbance, comply with existing County policies and regulations as well as appropriate mitigation measures. The inclusion of mitigation measures MM CTCR-1 and MM CTCR-2 would address cultural, historic, and tribal cultural resource issues on a project-specific level, which would reduce the overall cumulative contribution to potential impacts. Therefore, the contribution of the proposed Project to a cumulative impact to cultural, historic, and tribal cultural resources is not considered cumulatively considerable. Project-specific impacts would be *significant but mitigable*.

3.4.4.4 Proposed Mitigation

MM CTCR-1. Stop Work at Encounter. In the unlikely event that archaeological materials are encountered during construction-related activities, the contractor and/or construction crew shall immediately stop work and contact County Public Works. A County-approved archaeologist and Native American representative shall evaluate the significance of the find in compliance with the provisions of State law and the County's most current *Environmental Thresholds and Guidelines Manual* (Section 8, Guidelines for Determining the Significance of and Impacts to Cultural Resources – Archaeological, Historic, and Tribal Cultural Resources, and Appendix B, Fieldwork and Reporting Guidelines for Cultural Resources). Appropriate mitigation to protect and preserve significant archaeological, historic, or tribal cultural resources encountered during construction shall be required and funded by the applicant.

Requirements and Timing: County Public Works shall confirm that this cultural resource protection standard shall be printed on all construction plans and discussed during the pre-construction meeting(s).

Monitoring: County Public Works shall check plans and attend the pre-construction meeting(s) to confirm that this cultural resources protection standard is readily understood by the contractor and/or construction crew. County Public Works compliance monitoring staff shall also spot-check in the field throughout excavation, grading, and construction activities.

MM CTCR-2. Encountering Human Remains. Consistent with CEQA Guidelines Section 15064.5(e), in the unlikely event that human remains are accidentally discovered or recognized during construction activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC shall then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who shall then help determine what course of action should be taken in dealing with the remains. Per PRC Section

5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC Section 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Requirements and Timing: If human remains are discovered, construction activities shall stop immediately. The contractor and/or construction crew shall contact County Public Works and County Public Works shall contact the County Coroner. This condition shall be printed on all construction plans and discussed during the pre-construction meeting(s).

Monitoring: County Public Works shall check plans and attend the pre-construction meeting(s) to confirm that this standard is readily understood by the contractor and/or construction crew. In the unlikely event that human remains are discovered, County Public Works permit compliance staff shall ensure that no further disturbance shall occur until the County Coroner has made all necessary findings as to origin and disposition pursuant to PRC Section 5097.98.

3.4.4.5 Residual Impacts

Impact CTCR-1. The proposed Project would not occur in or near previously unevaluated historic properties or historic properties, and the rock revetment sturcture proposed for repair cannot be considered a historic resource based on significance criteria listed in CEQA Guidelines Section 15064.5(3)(A-D). Therefore, there would be *no residual impacts* associated with Impact CTCR-1.

Impact CTCR-2. Implementation of MM CTCR-1 would ensure appropriate measures are taken in the event of inadvertent discovery of a resource such that the proposed Project does not significantly impact unknown archaeological resources. Therefore, residual impacts associated with Impact CTCR-2 would be *insignificant*.

Impact CTCR-3. Implementation of MM CTCR-1 and MM CTCR-2 would ensure appropriate measures are taken in the event of inadvertent discovery of human remains such that the proposed Project does not significantly impact unknown human remains. Therefore, residual impacts associated with Impact CTCR-3 would be *significant but mitigable*.

Impact CTCR-4. Implementation of MM CTCR-1 would ensure appropriate measures are taken in the event of inadvertent discovery of a resource such that the proposed Project does not significantly impact tribal cultural resources. Therefore, residual impacts associated with Impact CTCR-4 would be *significant but mitigable*.

Section 3.5
Greenhouse Gases and Climate Change

3.5.1 Introduction

This section provides a topical overview of greenhouse gases (GHGs) and their relation to global climate change, describes the current effects of climate change, provides an overview of existing known GHG emissions and their sources, reviews applicable Federal, State, and local plans, policies, and regulations pertaining to GHG emissions, and describes the potential for impacts that could result from implementation of the proposed Sandyland Shoreline Protection Project (Project). The information and analysis in this section is based on information included in the County's 2030 Climate Action Plan (CAP) and Environmental Impact Report (EIR) and various climate change assessments, studies, and reports completed at the State, national, and international level. The discussion of GHGs in Section 3.5.2, *Environmental Setting* is broadly derived from the above sources as well as the County's Climate Change Vulnerability Assessment (CCVA) and other work completed as part of the County's One Climate Initiative.

3.5.2 Environmental Setting

As described in Section 3.2, *Air Quality,* the California Air Resources Board (CARB) has divided California into 15 regional air basins according to topographic features that restrict the movement of air. Each basin is further divided into Air Pollution Control Districts (APCDs), which are responsible for managing and enforcing air quality regulations within their jurisdictions.

The proposed Project is located in the South Central Coast Air Basin (SCCAB), which is comprised of three districts: San Luis Obispo County APCD, Santa Barbara County APCD (SBCAPCD), and Ventura County APCD. The Project area is located within the jurisdiction of SBCAPCD. Land uses in unincorporated areas of Santa Barbara County are mostly agricultural, open space, residential communities, and some commercial industrial areas and job centers. Passenger vehicles, motorcycles, and trucks are the primary sources of GHG emissions in the county. Additional sources of GHG emissions include the use of natural gas in buildings and facilities, agricultural practices, electricity use (generated in-State and imported), the operation of off-road equipment, solid waste, and water/wastewater.

3.5.2.1 Background

The natural process through which heat is retained in the Earth's troposphere is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave (i.e., thermal) radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The greenhouse effect provides a habitable climate on the planet,

although large magnitudes of GHG emissions from anthropogenic sources since the industrial revolution have created an excess of these gases in the atmosphere.

GHG pollutants most prevalently generated by human activities that have the greatest quantifiable influence on climate include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass), and water vapor. Methodologies and regulations approved by the Intergovernmental Panel on Climate Change (IPCC), U.S. Environmental Protection Agency (USEPA), and the CARB focus on CO_2, CH_4, N_2O, and chlorofluorocarbons (CFCs). CFCs have been banned in the U.S. and have no natural source, so these GHGs are not included in this analysis. CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher Global Warming Potential (GWP) than CO_2.

- CO_2. The production and absorption of CO_2 from human activities occurs through the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees and wood products, and as a result of other chemical reactions, such as those required to manufacture cement. CO_2 is constantly being exchanged among the atmosphere, ocean, and land surface as it is both produced and absorbed by many microorganisms, plants, and animals. CO_2 is sequestered (i.e., removed from the atmosphere) when it is absorbed by plants as part of the biological carbon cycle. When in balance, total CO_2 emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution began around 1750, human activities have contributed substantially to climate change by adding CO_2 and other heat-trapping gases to the atmosphere (USEPA 2024a). Globally, the largest source of human-related CO_2 emissions is the combustion of fossil fuels such as coal, natural gas, and oil, for energy and transportation. In 2022, CO_2 accounted for 80 percent of all U.S. greenhouse gas emissions from human activities (USEPA 2024a).
- CH_4. CH_4 is emitted from a variety of both human-related and natural sources. Anthropogenic sources of CH_4 include the production and transport of coal, natural gas, and oil, from livestock and other agricultural practices, and from the decay of organic waste in municipal solid waste landfills. It is estimated that up to 65 percent of global CH_4 emissions are related to human activities. Natural sources of CH_4 include wetlands, termites, oceans, sediments, volcanoes, and wildfires (USEPA 2024a).
- N_2O. In 2022, nitrous oxide (N_2O) accounted for 6 percent of all U.S. GHG emissions from human activities. Microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen, produce N_2O. In addition to agricultural sources, some industrial processes (e.g., fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of N_2O (USEPA 2024a).

To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as carbon dioxide equivalent (CO_2e). CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the GWP of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Table 3.5-1 shows the GWP for some of the most environmentally prevalent GHGs.

Table 3.5-1. Global Warming Potential for Various GHGs

Pollutant	Lifetime (Years)	Global Warming Potential (Second Assessment)	Global Warming Potential (Fourth Assessment)
Carbon Dioxide (CO_2)	--	1	1
Methane (CH_4)	12	21	25
Nitrous Oxide (N_2O)	114	310	298
Nitrogen Trifluoride	740	Unknown	17,200
Sulfur Hexafluoride (SF_6)	3,200	23,900	22,800
Perfluorocarbons (PFCs)	2,600-50,000	6,500-9,200	7,390-12,200
Hydrofluorocarbons (HFCs)	1-270	140-11,700	124-14,800

Source: CARB 2025.

GHGs are the result of both natural and human-influenced activities. Volcanic activity, forest fires, decomposition, industrial processes, landfills, consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. Without human activity, the Earth would maintain an approximate, but varied, balance between the emission of GHGs into the atmosphere and the storage of GHG in oceans and terrestrial ecosystems. Increased combustion of fossil fuels (e.g., gasoline, diesel, and coal) has contributed to a rapid increase in atmospheric levels of GHGs over the last 150 years.

3.5.2.2 Potential Effects of Climate Change

The primary effect of rising global concentrations of atmospheric GHG levels is a rise in the average global temperature of approximately 0.17 degrees Celsius (°C) per decade since 1901, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur given the expected rise in global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide (including from economically developed and developing countries and deforestation), which would induce further changes in the global climate system during the current century (USEPA 2024). Scientists expect that the average global surface temperature could rise by 2-11.5 degrees Fahrenheit (°F) by 2100, with significant regional variation.

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change remains. Nevertheless, the IPCC, in its Sixth Assessment Report, stated that, "…it is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred… [and] observed increases in well-mixed GHG concentrations since around 1750 are unequivocally caused by human activities…." (IPCC 2021). Thousands of studies conducted by tens of thousands of scientists around the world have documented changes in the

climate, with many lines of evidence demonstrating that human activities, especially GHGs, are the primary cause (U.S. Global Change Research Program 2017).

According to California's Fourth Climate Change Assessment (California Natural Resources Agency [CNRA] 2018), adverse effects from global climate change in California could:

- By 2050, increase intensity and frequency of heat waves, causing two to three times more heat-related deaths in cities.
- By 2100, increase average annual maximum daily temperature by 5.6°F to 8.8°F.
- By 2100, cause declines in the average water supply from snowpack by two-thirds from historic levels.
- By 2100, increase the frequency of extreme wildfires and increase the average area burned State-wide by 77 percent.
- By 2100, completely erode 31 to 67 percent of Southern California beaches, increasing the risk of tidal inundation and coastal flood hazards.

Below is a summary of some of the potential effects that could be experienced in California and particularly within the Central Coast region as a result of global warming and climate change. Other types of environmental impacts related to air pollutant emissions are addressed in Section 3.2, *Air Quality*.

Air Quality and Heat-Related Public Health Impacts

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level O_3, but the magnitude of the effect and, therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would exacerbate air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State (CARB 2022b). However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires.

In 2021, the CNRA published the most recent iteration of the California Climate Adaptation Strategy, which was first prepared as a response to the Governor's Executive Order (EO) S-13-2008. The CNRA report lists specific recommendations for State and local agencies to best adapt to the anticipated risks posed by a changing climate. In accordance with the California Climate Adaptation Strategy, the California Energy Commission (CEC) was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011. The information provided on the Cal-Adapt website represents a projection of potential future climate scenarios. The data are comprised of the average values from a variety of scenarios and models and are meant to illustrate how the climate may change based on a variety of different potential social and economic factors. According to the Cal-Adapt website, the county could experience an average increase in temperature of approximately 4.3°F to 74.3°F by 2070–2099, compared to the baseline 1961–1990 period (70.0°F), which is a potential increase of approximately 6 percent. Data suggest that the predicted future increase in temperatures as a result of climate change could potentially interfere with efforts to control and reduce ground-level ozone in the region (CEC 2025).

Water Supply and Water Quality

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. Studies have found that, "[c]onsiderable uncertainty about precise impacts of climate change on California hydrology and water resources will remain until we have more precise and consistent information about how precipitation patterns, timing, and intensity will change." For example, some studies identify little change in total annual precipitation in projections for California while others show significantly more precipitation. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, a reduced snowpack coupled with increased rainfall during winters could lead to reductions in spring runoff and higher evapotranspiration because higher temperatures could reduce the amount of water available for recharge.

These effects of climate change may also have adverse effects on water quality. Changes in precipitation and runoff entering waterbodies and more frequent flooding can exacerbate many forms of water pollution, including increases in erosion and discharge of sediments or increasing runoff carrying harmful pollutants. Increases in water temperatures may also cause eutrophication and excess algal growth, as well as make it more difficult to attain water quality standards. These effects would impact natural processes, as well as the quality of much of California's water supplies (USEPA 2016).

Hydrology and Sea Level Rise

Climate change could potentially affect the amount of snowfall, rainfall, and snowpack, and the intensity and frequency of storms. As a result, climate change could lead to adverse flood hydrographs (e.g., flash floods, rain or snow events, and coincidental high tide and high runoff events), sea level rise (SLR) and coastal flooding, coastal erosion, and the potential for saltwater intrusion. Sea level rise can be a product of global warming through two main processes, including the expansion of seawater as the oceans warm and the melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Increased storm intensity and frequency could affect the ability of flood control facilities, including levees and coastal armoring, to handle storm events. For a discussion of SLR within the coastal area of the county as well as the Project site, see Seciton 3.7, *Hydrology, Water Quality, and Coastal Processes*.

Agriculture

California has a $30 billion agricultural industry that produces half the country's fruits and vegetables; Santa Barbara County hosts a $1.9 billion agricultural industry. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater O_3 pollution could render crops more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year for certain crops, such as wine grapes, bloom or ripen, and thus affect their quality.

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. . Changes in the climate can affect terrestrial, coastal, and

marine ecosystems by altering the hydrologic cycle and water quality, reducing the range of habitats, altering animal behavior and migration patterns, and altering the timing of natural processes such as flower blooms (USEPA 2023). Rising temperatures could have four major impacts on plants and animals: 1) timing of ecological events; 2) geographic range; 3) species' composition within communities; and 4) ecosystem processes such as carbon cycling and storage. Recent studies have found that in California, 16 of 29 vegetation communities are highly or nearly highly vulnerable to climate change (CNRA 2018b). The most vulnerable ecosystems in the county are the aquatic systems (e.g., streams, creeks, rivers, and lakes), particularly sloughs and coastal marshes in the North County and South Coast (County of Santa Barbara 2021).

3.5.2.3 Existing GHG Emissions from Human Activity

The burning of fossil fuels, such as coal and oil, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions (and thus substantial increases in atmospheric concentrations). In 2022, atmospheric CO_2 concentrations measured 421 parts per million (ppm) at National Oceanic and Atmospheric Administration's (NOAA's) Mauna Loa Atmospheric Baseline Observatory in Hawaii, representing an increase from the level of 280 ppm that occurred for 6,000 years of human civilization prior to the Industrial Revolution (NOAA 2023).

Global GHG Emissions

The IPCC was formed by the World Meteorological Organization in 1988 to provide governments at all levels with scientific information that they can use to develop climate policies. The IPCC is the United Nation's body for assessing the science related to climate change and is responsible for tracking and reporting global emissions of GHGs. IPCC's Sixth Assessment Report, which was published in 2022, reported that global net anthropogenic GHG emissions were 59 ± 6.6 gigatons (Gt) CO_2e in 2019, approximately 12 percent (6.5 Gt CO_2e) higher than in 2010 and approximately 54 percent (21 Gt CO_2e) higher than in 1990. The annual average during the decade 2010-2019 was 56 ± 6.0 GtCO_2e, 9.1 Gt CO_2e per year higher than in 2000–2009. This is the highest increase in average decadal emissions on record. The average annual rate of growth slowed from 2.1 percent per year between 2000 and 2009 to 1.3 percent per year between 2010 and 2019. Almost half (i.e., approximately 42 percent) of cumulative anthropogenic CO_2 emissions between 1850 and 2019 have occurred in the last 30 years (IPCC 2022).

U.S. GHG Emissions

In 2022, the total gross U.S. GHG emissions were 6,343.2 million metric tons (MMT) of CO_2e. Total U.S. emissions have decreased by 3 percent from 1990 to 2022, down from a high of 15.2 percent above 1990 levels in 2007. Emissions increased from 2021 to 2022 by 0.2 percent (14.4 MMT CO_2e). Between 2021 and 2022, the increase in total greenhouse gas emissions was driven largely by an increase in CO_2 emissions from fossil fuel combustion across most end-use sectors due in part to increased energy use from the continued rebound of economic activity after the height of the COVID-19 pandemic. In 2022, CO2 emissions from fossil fuel combustion increased by 1.0 percent compared to the previous year and were 1.1 percent below emissions in 1990. In 2022, the total U.S. GHG emissions by sector were 29.5 percent for the industry sector, 28.5 percent for the transportation sector, 15.3 percent for residential sector, 15.8 percent for the commercial sector, and 10.5 percent for agriculture (USEPA 2024a).

State of California GHG Emissions

In 2021, the most recent publicly available data on State-wide GHG emissions, California generated approximately 381.3 MMT CO_2e, or approximately 5 percent of total U.S. emissions. This is due primarily to the size and the population of California as compared to other states. The gross per capita emissions in the State were reduced 24 percent from the 13.8 metric tons (MT) CO_2e per person in 2001 to 9.7 MT CO_2e per person in 2021, a 30 percent decrease (CARB 2023a). Carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP) follows ongoing declining trends. From 2000 to 2021, the carbon intensity of California's economy decreased by 50.8% while the GDP increased by 67.9%. Emissions per GDP declined by 6.2% from 2019 to 2020 and declined by 4.1% from 2020 to 2021. Likely in part due to the COVID -19 pandemic and rebound, GDP fell 2.8% in 2020 and then increased 7.8% in 2021 (CARB 2023a).

Transportation is the source of approximately 39 percent of the State's GHG emissions, followed by industrial sources at 22 percent, in-State electricity generation at 11 percent, out-of-State electricity generation at 5 percent. Residential and commercial sources account for 14 percent, combined, while agriculture accounts for 8 percent. High GWP, such as refrigerants, gases comprised 5.6 percent of California's GHG emissions in 2021. The recycling and waste sector accounted for approximately 2.2 percent of State emissions (CARB 2023a).

County of Santa Barbara Emissions Inventory

As part of the County's 2030 Climate Action Plan, the County prepared a comprehensive GHG inventory using 2018 data. Based on this data, in 2018, the County produced 1,474,858 MT CO_2e. Compared to the County's prior 2007 GHG emissions inventory, GHG emissions increased by approximately 11 percent. However, 2018 GHG emissions have decreased 3 percent since 2016. Transportation (on-road and off-road) and natural gas use in buildings and facilities are the primary sources of GHG emissions in the county, at 48 percent and 20 percent respectively. The agriculture sector generates 13 percent of the County's GHG emissions. Electricity used in buildings and facilities generates 6 percent of GHG emissions (County of Santa Barbara 2024).

3.5.3 Regulatory Setting

Federal, State, and local regulations have been enacted to address GHGs and climate change in Santa Barbara County. The following section summarizes applicable policies and regulations that may relate directly to the proposed Project and its associated impacts.

3.5.3.1 Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA) was passed in 1963 and amended in 1990, becoming the first comprehensive Federal law to regulate air emissions from stationary and mobile sources. In April 2007, the U.S. Supreme Court ruled that greenhouse gases are "air pollutants" under the CAA. Among other things, the law authorizes the USEPA to establish National Ambient Air Quality Standards (NAAQS), which help to ensure basic health and environmental protection from air pollution. The

Federal CAA also gives the USEPA the authority to limit emissions of air pollutants coming from sources like chemical plants, utilities, and steel mills.

In April 2007, the U.S. Supreme Court ruled that GHGs are "air pollutants" under the Federal CAA. On December 7, 2009, two distinct findings regarding GHGs were signed under Section 202(a) of the Federal CAA. These include the “Endangerment Finding” and the “Cause or Contribution Finding.” The Endangerment Finding finds that the current and projected concentrations of the six key well-mixed GHGs in the atmosphere threaten the public health and welfare of current and future generations. The Cause and Contribution Finding finds that the combined emissions of these well-mixed GHGs from new motor vehicles and vehicle engines contribute to the GHG pollution that threatens public health and welfare.

In 1990, the U.S. Congress adopted the Federal CAA Amendments (CAAA), which updated the nation's air pollution control program. The CAAA established a number of requirements, including new deadlines for achieving Federal clean air standards.

The USEPA is the Federal agency charged with administering the CAAA and other air quality-related legislation. As a regulatory agency, USEPA's principal functions include setting NAAQS; establishing minimum national emission limits for major sources of pollution; and promulgating regulations.

The CAAA require USEPA to approve State Implementation Plans (SIPs) to meet and/or maintain the NAAQS. California's SIP is comprised of plans developed at the regional or local level.

Energy Independence and Security Act

The Energy Independence and Security Act (EISA) of 2007 includes several key provisions that will increase energy efficiency and the availability of renewable energy, which will reduce GHG emissions as a result. The EISA facilitates the reduction of GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Achieving approximately 25 percent greater efficiency for light bulbs by phasing out old incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the 2019 USEPA and National Highway Traffic Safety Administration (NHTSA) actions described in Section 3.2, *Air Quality*, the EISA included: a) establishing a minimum average fuel economy of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by 2020; and b) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.

Vehicle Emissions Standards

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the U.S. automobile industry, which applies to passenger cars and light-duty trucks for model years 2012 to 2016 (referred to as the Pavley standards; Phase 1 standards). The standards surpass the prior Corporate Average Fuel Economy (CAFE) standards and required an average fuel economy standard of 35.5 mpg and 250 grams of CO_2 per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010.

In 2012, standards were adopted for model year 2017 through 2025 passenger cars and light-duty trucks. By 2020, new vehicles are projected to achieve 41.7 mpg – if GHG reductions are achieved exclusively through fuel economy improvements – and 213 grams of CO_2 per mile (Phase 2 standards). By 2025, new vehicles are projected to achieve 54.5 mpg and 163 grams of CO_2 per mile, a reduction of approximately 50 percent relative to 2010. According to the USEPA, a model year 2025 vehicle would emit approximately one-half of the GHG emissions from a model year 2010 vehicle.

On October 25, 2016, the USEPA established rules for a comprehensive Phase 2 Heavy-Duty National Program that established fuel consumption and CO_2 standards for each of the four regulatory categories of heavy-duty vehicles. The rule also included separate standards for the engines that power combustion tractors and vocational vehicles. These standards build upon the Phase 1 and Phase 2 standards for light-duty vehicles spanning model years 2012-2025.

On September 27, 2019, the USEPA and NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program" (84 Federal Register [FR] 51310). The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle (ZEV) mandates in California. Both the GHG emission standards and the ZEV sales standards reduce GHG emissions and fossil fuel energy consumption; as a result of the loss of ZEV sales requirements, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years. Part Two of these regulations, which were issued on March 31, 2020, set fuel economy and CO_2 standards that increase 1.5 percent in stringency each year form model years 2021 through 2026.

On March 20, 2024, the USEPA announced new, more protective final standards to further reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027 and through 2032 (USEPA 2024b).

The Inflation Reduction Act

The Inflation Reduction Act was signed into law by President Biden in August 2022. The act includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the U.S. by 40 percent as compared to 2005 levels by 2030. The act allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

The Inflation Reduction Act authorized the USEPA to implement the Greenhouse Gas Reduction Fund Program, which is a historic, $27 billion investment to mobilize financing and private capital to combat the climate crisis and ensure American economic competitiveness. The Greenhouse Gas Reduction Fund will be designed to achieve the following program objectives: reduce GHG emissions and other air pollutants; deliver the benefits of GHG- and air-pollution-reducing projects to American communities, particularly low-income and disadvantaged communities; and mobilize financing and private capital to stimulate additional deployment of GHG and air-pollution-reducing projects (USEPA

2025). The Inflation Reduction Act confirms that reduction of GHGs is a core goal of the CAA and that the funding provided should allow the USEPA to increase the scope of its CAA rulemakings. The act also confirms applicability of the Inflation Reduction Act to GHGs in three specific areas: (1) California's ability to regulate GHG emissions from vehicles; (2) the USEPA's authority to regulate methane emissions from oil and gas facilities; and (3) the USEPA's authority to regulate GHG emissions from power plants.

However, as of January 20, 2025, President Trump issued EO 14154, "Unleashing American Energy," that pauses the disbursement of funds appropriated under the Inflation Reduction Act (Brasher et al. 2025).

2025 Presidential Actions

On January 20, 2025, President Trump issued a series of Presential Actions related to climate change and GHGs. The Initial Recension of Harmful Executive Orders revoked EOs 13990 and 14008 and Putting American First in Internation Environmental Agreements. Additionally, Unleashing American Energy disbanded the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG), which was established pursuant to EO 13990, as well as any guidance, instruction, recommendation, and documents issued by the IWG. This Presidential Action directed the Administrator of the EPA to issue guidance to address the social cost of carbon, including consideration of eliminating the calculation from any Federal permitting or regulatory decision. Prior to further guidance issued by the EPA, the Presidential Action directed agencies to "…ensure estimates to assess the value of changes in greenhouse gas emissions resulting from agency actions, including with respect to the consideration of domestic versus international effects and evaluating appropriate discount rates, are, to the extent permitted by law, consistent with the guidance contained in OMB Circular A-4 of September 17, 2003 (Regulatory Analysis)."

Since then, President Trump has issued a number of other EOs with the potential for significant impacts on fossil fuel production, climate change initiatives and other pollution-controlling regulations. These include an order requiring certain agencies, including the USEPA, to establish a sunset date for certain regulations, upon which date the agencies are directed to treat such regulations as "ceasing to be effective" and not enforce them. For existing regulations subject to the order, the sunset date must be one year after the rules establishing the sunset date take effect. For new regulations, the sunset date must be not more than five years after the effective date of the regulation. The order provides that the sunset date may be extended, following a public comment period focusing on the costs and benefits of the regulation, if the agency determines an extension is warranted (Malone 2025).

The regulatory sunset order does not specify which USEPA regulations will be required to establish a sunset date but instead directs USEPA to, within 30 days of the order, provide the Office of Management and Budget a list of statutes vesting USEPA with regulatory authority that will be subject to this EO (Malone 2025).

3.5.3.2 State

California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both Federal and State air pollution control programs within

California. CARB ensures the implementation of the California Clean Air Act (CCAA) and responds to the Federal CAA. CARB is responsible for the control of vehicle emission sources, while the local APCD is responsible for enforcing standards and regulating stationary sources. CARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB is responsible for the control of vehicle emission sources, while the local APCD is responsible for enforcing standards and regulating stationary sources.

As directed by AB 32, CARB adopted the first Scoping Plan, which presented a set of actions designed to reduce overall GHG emissions in California. This initial Scoping Plan provided an economy-wide approach to reducing emissions and highlighted the value of combining carbon pricing with other complementary programs to meet California's 2020 GHG emissions target while ensuring progress in all sectors. Relative to transportation, the Scoping Plan included nine measures or recommended actions related to reducing vehicle miles traveled (VMT) and transportation-related GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis.

AB 32 requires CARB to update the Scoping Plan at least every 5 years. CARB released the First Update to the Climate Change Scoping Plan in May 2014 to provide information on the development of specific regulations and to adjust projections in consideration of the economic recession. The 2014 Update to the Scoping Plan presented an update on the program and its progress toward meeting the 2020 limit. It also developed the first vision for long-term progress beyond 2020. It also identified the need for a 2030 mid-term target to establish a continuum of actions to maintain and continue reductions, rather than only focusing on targets for 2020 or 2050.

In response to EO B-30-15 and Senate Bill (SB) 32, all State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target. The 2017 Update to the Climate Change Scoping Plan was approved by CARB on December 14, 2017 (CARB 2017). The 2017 Scoping Plan builds upon the framework established by the initial 2018 Scoping Plan and 2014 Update while identifying new, technologically feasible, and cost-effective strategies to ensure that the State meets its GHG reduction targets.

Subsequent to the 2017 Scoping Plan, CARB adopted more aggressive SB 375 targets in 2018 as one measure to support progress toward the Scoping Plan goals, which encourage SCSs that plan to achieve, in aggregate, a 19 percent reduction in State-wide per capita GHG emissions reductions relative to 2005 by 2035 from passenger vehicles. However, CARB recognized that additional State and local actions are needed to achieve the transportation system reductions necessary to meet adopted climate goals, which is approximately a 25 percent reduction in State-wide per capita GHG emissions by 2035 relative to 2005.

In 2022, CARB released a 2022 Scoping Plan Update, which includes a discussion of the relationship between local government actions and achievement of the State's long-term GHG emissions reduction goals, and non-binding recommendations to support local governments in their efforts to reduce GHG emissions. The 2022 Scoping Plan Update also lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279.

California Legislation on Climate Change

Other recently California legislation related to GHG emissions and climate change includes the following:

- AB 1493 – Requires CARB to define standards for cars and light trucks manufactured after 2009.
- EO S-3-05 – Announced GHG emission reduction targets.
- AB 32 (Global Warming Solutions Act of 2006) – Requires CARB to adopt regulations to evaluate State-wide GHG emissions and then create a program and emission caps to limit State-wide emissions to 1990 levels.
- EO S-01-07 – Requires a State-wide goal to be established to reduce the carbon intensity of California's transportation fuels.
- EO B-16-12 – Requires State agencies to increase the number of zero-emission vehicles (ZEV) within the State fleet through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZEV by 2015 and 20 percent by 2025.
- Senate Bill (SB) 97 – Acknowledges that climate change analysis is to occur in conjunction with the California Environmental Quality Act (CEQA) process and that the Governor's Office of Planning and Research is responsible for developing CEQA Guidelines.
- SB 375 – Creates a process whereby local governments and other stakeholders work together within their region to achieve the reduction of GHG emissions.
- EO B-30-15 – Established a new interim State-wide GHG emission reduction target.
- Climate Change Scoping Plan – Designed to reduce overall carbon emissions in California.
- CARB GHG Emission Inventory – Creates GHG emissions limits and requires an emissions inventory for the industries determined to be significant sources of GHG emissions.
- SB 32 – Extension of AB 32 requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged).
- SB 100 and 350 – Supports the reduction of GHG emissions from the electricity sector by accelerating California's Renewables Portfolio Standard (RPS) Program, which was last updated by SB 350 in 2015.
- SB 1383 – Requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants.
- EO B-55-18 – Established a new State-wide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter.
- EO N-79-20 – Established a new State-wide goal of achieving 100 percent of in-State sales of new passenger cars and trucks will be ZEV by 2035, 100 percent of in-State sales of new medium and heavy-duty vehicles will be ZEV by 2045, and transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.
- AB 1279 (California Climate Crisis Act) – Declares the policy of the State both to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, State-wide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. AB 1279 also requires the State to ensure that updates to the Scoping Plan identify and recommend measures to achieve these policy goals

and to identify and implement a variety of policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage technologies in California.

- California Building Code, Title 24 – Sets several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility.
- SB 905 – Requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, and storage (CCUS) technologies and carbon dioxide removal (CDR) projects and technology. The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified State permitting application for approval of CCUS and CDR projects. The bill also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project.
- SB 1020 – SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve State agencies from the original target year of 2045 to 2035. This bill requires each State agency to individually achieve the 100 percent goal by 2035 with specified requirements. It also requires the California Public Utilities Commission, CEC, and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability.

3.5.3.3 Local

Santa Barbara County Air Pollution Control District

SBCAPCD monitors and regulates GHG emissions in the county. As a responsible agency under CEQA, SBCAPCD reviews and approves environmental documents prepared by other lead agencies or jurisdictions to reduce or avoid impacts on air quality and to ensure that the lead agency's environmental document is adequate to fulfill CEQA requirements. As a concerned agency, the SBCAPCD comments on environmental documents and suggests mitigation measures to reduce GHG emissions.

County of Santa Barbara Clean Air Plan

The Federal CAAA of 1990 and the CCAA of 1988 mandate the preparation of CAPs that provide an overview of air quality and sources of air pollution and greenhouse gas emissions and identify pollution-control measures needed to meet Federal and State air quality standards. The SBCAPCD and the Santa Barbara County Association of Governments (SBCAG) are responsible for formulating and implementing air quality attainment plans for Santa Barbara County.

To comply with these regulations, the County prepared an Air Quality Attainment Plan (AQAP) in 1979. The 1979 AQAP demonstrated that the area could not attain the Federal O_3 standard by the required attainment date of 1982 despite the implementation of all reasonably available control techniques on stationary sources. The 1977 CAAA requires that air quality plans include "…such other measures as may be necessary to ensure attainment and maintenance of such primary or secondary standards (for which the area is in a nonattainment status), including, but not limited to

transportation controls…" In order to achieve this directive, land use control measures were and have been included in the AQAP to aid in future air quality planning efforts. Subsequent AQAPs have been issued in 1989 and 1991.

In 1994, the SBCAPCD began preparing CAPs, which served as triennial updates to the AQAPs. The CAP provides an overview of the regional air quality and sources of air pollution and identifies the pollution-control measures needed to meet clean-air standards. The schedule for plan development is outlined by Federal and State requirements and is influenced by regional air quality. CAPs affect the development of SBCAPCD rules and regulations and other programs. They also influence a range of activities outside the district including transportation planning, allocation of monies designated for air quality projects, and more are responsible for formulating and implementing the CAP for the county. The schedule for plan development is outlined by Federal and State requirements and is influenced by regional air quality. CAPs affect the development of SBCAPCD rules and regulations and other programs. They also influence a range of activities outside the district including transportation planning, allocation of monies designated for air- quality projects, and more.

The SBCAPCD 2022 Ozone Plan is the 3-year update to the County AQAP required by the State to show how SBCAPCD plans to meet the State 8-hour O_3 standard. Note that past ozone plan updates addressed both the Federal and State O_3 standards, but this plan addresses the State standards only because the SCCAB is designated "attainment" for the Federal 8-hour O_3 standards. The 2022 Ozone Plan builds upon and updates the 2019 Ozone Plan and includes an inventory of O_3 precursor emissions in the county, the most prevalent of which are reactive organic compounds (ROCs) and nitrogen oxides (NO_x). The 2022 Ozone Plan focuses on reducing O_3 precursor emissions through predicting vehicle activity trends and implementation of both stationary source emission control measures and transportation control measures, which would serve to reduce mobile-source emissions, the primary source of ROC and NO_x emissions in the county. The 2022 Ozone Plan satisfies both Federal and State planning requirements and was adopted by the SBCAPCD Board in December 2022. On January 1, 2024 , CARB is redesignated the county from "nonattainment" to "nonattainment-transitional" for the State O_3 standards (SBCAPCD 2024).

Santa Barbara County 2030 Climate Action Plan

The County's 2030 CAP, adopted on August 27, 2024, is a qualified GHG emission reduction plan that seeks to address the County's largest sources of GHG emissions through ambitious, cross-cutting policies and programs. It is the County's roadmap to achieving the goal of reducing GHG emissions in the unincorporated area by 50 percent below 2018 levels by 2030. The 2030 CAP identifies 12 emissions reductions measures and a total of 68 actions in 6 key areas of focus, which include: Housing & Transportation; Clean Energy; Waste, Water, and Wastewater; Nature-Based Solutions; Low-Carbon Economy; and Municipal Operations. The 2030 CAP is a qualified GHG emissions reduction plan pursuant to CEQA Guidelines Section 15183.5(b).

In addition to adoption of the 2030 CAP, the Santa Barbara County Board of Supervisors also adopted amendments to the County's *Environmental Thresholds and Guidelines Manual* to include new non-stationary source GHG emissions thresholds of significance. The updated thresholds were prepared as part of the 2030 CAP and are set at levels necessary to help the County achieve its emissions reduction targets.

3.5.4 Environmental Impact Analysis

This section discusses the potential GHG emissions impacts associated with the proposed Project.

3.5.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on GHG emissions if it would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Santa Barbara County Thresholds

A CEQA lead agency may determine that a proposed project's incremental contribution to an existing cumulatively significant issue, such as climate change, is not significant based on supporting facts and analysis (CEQA Guidelines Section 15130, Discussion of Cumulative Impacts, Subsection [a][2]). The CEQA Guidelines direct that a proposed project's contribution to a significant cumulative impact will be rendered insignificant if the proposed project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact (CEQA Guidelines Section 15130[a][3]).

Concurrent with adoption of the 2030 CAP, Santa Barbara County adopted new GHG emissions thresholds of significance for non-industrial stationary source proposed projects based on the County's 2030 GHG target (i.e., 50 percent below 2018 levels by 2030). The thresholds were developed and adopted consistent with CEQA Guidelines Section 15064.7, Thresholds of Significance. The thresholds are designed to identify (1) a cumulatively considerable contribution to an existing adverse condition, and (2) a cumulatively significant impact in combination with other proposed projects causing related impacts. The County's updated *Environmental Thresholds and Guidelines Manual* describes the process County staff shall use to determine whether a plan or project would result in a significant impact related to GHG emissions relative to the thresholds of significance included in Appendix G of the CEQA Guidelines that are describe above.

To determine whether a project would result in a significant GHG impact in relation to CEQA Guidelines thresholds (a), the County's updated *Environmental Thresholds and Guidelines Manual* describes the process County staff shall use to determine whether a plan or project would result in a significant impact related to GHG emissions depending on the type of project, as summarized below:

- For industrial stationary sources subject to discretionary approvals by the County, where the County is the CEQA lead agency, the project would result in a significant GHG impact if it would exceed the County's numerical bright-line threshold of 1,000 MT CO_2e/year.
- For a land use project or plan other than industrial stationary source projects, subject to discretionary approvals by the County, where the County is the CEQA lead agency, the land use project or plan is deemed not to result in a significant GHG impact if it is consistent with the

measures included in the 2030 CAP, and that therefore the analysis of GHG emissions for that project or plan can be tiered off of the 2030 CAP PEIR consistent with CEQA Guidelines Section 15183.5. For project or plan that is subject to discretionary review and triggers environmental review pursuant to CEQA, the determination of consistency with the 2030 CAP is based up on the County's 2030 Climate Action Plan Consistency Checklist.[1]

- For a land use project or plan other than industrial stationary source projects, subject to discretionary approvals by the County, where the County is the CEQA lead agency, and that cannot be tiered off of the 2030 CAP PEIR due to inconsistency with the 2030 CAP, the land use project or plan would result in a significant GHG impact:
  - If it is a residential type project or plan, would generate more than 2.68 MT CO_2e/year per resident;
  - If it is a non-residential type project or plan, would generate more than 2.63 MT CO_2e/year per employee; and
  - If it is a mixed-use type project or plan, would generate more than 2.67 MT CO_2e/year per service person.[2]

Pursuant to the County's updated *Environmental Thresholds and Guidelines Manual,* a project would result in a significant GHG impact in relation to CEQA Guidelines thresholds (b), if it would result in an inconsistency with the County's 2030 CAP and/or exceed the GHG emissions thresholds described above.

Methodology

CEQA Guidelines Section 15130 requires that an EIR discuss cumulative impacts of a project when the project's incremental effects are cumulatively considerable. A "cumulative impact" is an impact that is created as a result of the combination of the proposed project together with other projects causing related impacts. "Cumulatively considerable" means that the incremental effects of the individual project are significant when viewed in connection with the effects of past projects, current projects, and probable future projects, which in this case includes growth within the county.

According to the California Air Pollution Control Officers Association (CAPCOA), "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). CEQA Guidelines Section 15064.4(b) states that:

> *"…in determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonable foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions."*

Due to the global context of climate change, GHG analysis is based on the cumulative impact of emissions. This analysis focuses on the GHG impacts that could occur from emissions associated with the implementation of the proposed Project.

[1] 2030 Climate Action Plan Consistency Checklist: https://cosantabarbara.app.box.com/s/coq90l9nrzb4bmctyuo0t6phgy4ib33y.

[2] Service person means resident of the residential land use or employee of the non-residential land use.

The County's guidelines generally state that for the analysis of cumulative GHG emissions associated with construction from a land use development project, GHG emissions are generally orders of magnitude lower than the operational emissions from a project because construction emissions are generally short in duration compared to the project's overall lifetime, and thus can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail large quantities of cut and fill that could result in construction-related GHG emissions that may be considered significant. Thus, the County retains the discretion on a project-by-project basis to consider whether a project's construction-related GHG emissions could be cumulatively considerable and require more detailed quantitative CEQA GHG emissions analysis and respective mitigation.

As described in Chapter 2, *Project Description,* the proposed Project would involve the repair of the existing shoreline protection device resulting in short-term construction and maintenance activities. The Project would not include new development or land uses which would generate long-term operational emissions. Thus, these impacts are not discussed in this analysis as the proposed Project does not involve any post-construction vehicle trips (with the exception of infrequent maintenance activities), energy demands, or area-source emissions. Consistent with the County's general guidance for consideration of construction-related GHG emissions, the Project's impacts are generally discussed qualitatively. However, as discussed in Section 3.2, *Air Quality,* the construction-related emissions associated with the proposed Project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.29, which provides an estimate of Project construction GHG emissions. Refer to the *Methodology* discussion in Section 3.2, *Air Quality,* for detailed discussion of the methodology for estimating Project construction-related emissions. The results of the modeling are presented to support this qualitative analysis.

3.5.4.2 Project Impacts

Table 3.5-2 provides a summary of the proposed Project's impacts related to GHG emissions. A detailed discussion of each impact follows.

Table 3.5-2. Summary of GHG Emissions Impacts

Greenhouse Gases and Climate Change Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact GHG-1. The proposed Project would result in short-term construction GHG emissions that would not have a significant impact on the environment or result in an inconsistency with the 2030 CAP or other plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact GHG-1. The proposed Project would result in short-term construction GHG emissions that would not have a significant impact on the environment or result in an inconsistency with the 2030 CAP or other plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.

As discussed previously, the proposed Project would involve short-term construction activities to complete the repair and improvement of an existing shoreline protection device. Project activities would involve the mobilization and demobilization of the project site, hauling of imported armor rock, placement and reworking of existing and imported rock, dune vegetation enhancement, and stairway demolition and construction. The proposed Project would require a minimal amount of construction equipment (i.e., track-mounted long-reach excavators, front-end loaders) and up to 2,752 haul truck and concrete truck trips to complete construction and maintenance activities and would result in only minor short-term emissions.

The construction-related GHG emissions resulting from the proposed Project would be primarily associated with the use of off-road construction equipment and on-road vehicles (e.g., excavators, front-end loaders, haul trucks). Construction activities would take place over approximately 6 to 7 months, primarily from the hours of 7:00 A.M. to 7:00 P.M. Construction activities would also occur during routine maintenance involving similar types of repairs. Maintenance activities would occur approximately every 10 years or on an emergency, as-needed basis. The duration of maintenance activities would be approximately 40 days and would involve a much lesser amount of construction vehicles than the initial repair activity.

The results of CalEEMod analysis is demonstrated in Table 3.5-3. As presented therein, construction associated with the proposed Project is estiamted to result in 184.9 MT CO_2e. When amortized over the 30 years (considered by the County and SBCAPCD to be the average lifespan of a project), construction emissions associated with the proposed Project would be approximately 6.2 MT CO_2e per year. By comparison, prior to adoption of the 2030 CAP and update to the *Environmental Thresholds and Guidelines Manual,* the County previously applied a threshold of signficance of 300 MT CO_2e per year. While GHG emissions from future maintenance activities have not been quantified, maintenance activities would occur on an infrequent basis and would involve less equipment and construction activities than initial Project construction. Thus, GHG emissions from maintenance are anticipated to be less than that estimated for the initial repair. The anticipated GHG emissions resulting from construction and maintenance would be highly negible in the context of the County's estimated annual GHG inventory (1.4 million MT CO_2e in 2018), and are considered to have a insignficant impact on the environment.

Table 3.5-3. Estimated Construction GHG Emissions

	Total Emissions (MT CO_2e)
Emissions (2026)	101.0
Emissions (2027)	83.9
Total Combined GHG Emissions	184.9
Amortized Construction GHG Emissions	6.2 MT CO_2e per year

Given that the proposed Project would only involve short-term construction and maintenance activities resulting in highly negligible GHG emissions, the proposed Project would not result in any conflicts with applicable plans or policies for reducing GHG emissions, such as the County's 2030 CAP. The County's 2030 CAP, which was adopted in August 2024, includes updated GHG emissions

forecasts, as well as goals and policies for reducing countywide GHG emissions below adopted targets by 2030. Additionally, the 2030 CAP is a qualified GHG emissions reduction plan pursuant to CEQA Guidelines Section 15183.5(b). The 2030 CAP GHG emission reduction goal (50 percent reduction from 2018 levels by the year 2030) is consistent with the State's direction under SB 32 as codified in the California Health and Safety Code, Division 25.5, Part 4, Section 38566 (40 percent reduction below 1990 levels by 2030). CARB's 2022 Scoping Plan Update describes the State's strategy for achieving California's 2030 GHG emission reduction target. The Scoping Plan does not prescribe or require specific actions by local government agencies; rather, the Scoping Plan provides guidance to local agencies and CARB supports programs that assist local agencies. Local government efforts to reduce emissions within their jurisdiction are critical to achieving the State's long-term GHG goals, and can also provide important co-benefits, such as improved air quality, local economic benefits, more sustainable communities, and an improved quality of life. Thus, by demonstrating consistency with the County's 2030 CAP, it can be determined that a project is consistent with the State's plans and targets for reducing GHG emissions. Because the proposed Project only involves short-term construction activities and does not result in any new development, the proposed Project would not conflict with any of the goals, measures, or actions identified in the 2030 CAP. As such, the proposed Project is not considered to be inconsistent with either the 2030 CAP or other applicable plans, policies, and regulations adopted for reducing GHG emissions, and Project impacts are considered *insignificant.*

3.5.4.3 Cumulative Impacts

Due to the global context of climate change, the analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions. As described above, the proposed Project would result in an *insignificant* impact related to GHG emissions. Therefore, the implementation of the proposed Project would not have a considerable contribution to a cumulatively significant impact related to GHG emissions.

3.5.4.4 Proposed Mitigation

No mitigation measures are required.

3.5.4.5 Residual Impacts

Impact GHG-1. Implementation of the proposed Project would not result in the generation of GHGs that would result in a significant impact to the environment or result in an inconsistency with the 2030 CAP. Estimated construction and maintenance GHG emissions resulting from implementation of the proposed Project would be highly negligible, and impacts would be *insignificant.*

Section 3.6
Hazards and Hazardous Materials

3.6.1 Introduction

This section describes the affected environment and regulatory setting for hazards and hazardous materials and the potential for impacts on hazards and hazardous materials that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and mitigation measures to reduce identified impacts where possible. The information and analysis in this section is based on information produced by the County of Santa Barbara (County), such as the County's Comprehensive Plan: Seismic Safety & Safety Element, the County of Santa Barbara Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), information from recent environmental documents prepared for the County, and review of pertinent environmental regulatory lists and databases. The discussion of hazards and hazardous materials in the Project area is broadly derived from the above sources as well as the Hazardous Materials Technical Memorandum and Environmental Data Resources, Inc. (EDR) Radius Map Report generated for the Project site (see Appendix G).

3.6.2 Environmental Setting

3.6.2.1 Regional and Local Setting

As described in Section 2.2.1, *Project Location and Ownership*, the Project site is located on the coastline of southeast unincorporated Santa Barbara County, approximately 1.1 miles northwest of the City of Carpinteria. The Project site and the surrounding vicinity is characterized by unincorporated lands developed with large, single-family residential homes and accessory structures immediately along the coastline, and backed by the Carpinteria Salt Marsh. The Project site is situated in the rural unincorporated area of the Carpinteria Valley, which is characterized largely by agricultural lands and suburban residential neighborhoods. The Project site is also situated within the County's Coastal Zone. The existing 3,700-foot-long rock revetment is located seaward of the 25 residential developments and accessory structures along Sand Point Road, between the residences and the beach.

3.6.2.2 Existing Sediments

Prior to initial construction of the existing rock revetment, in 1964 the Project site consisted of a low lying sandspit that separated Carpinteria Salt Marsh from the Pacific Ocean. Analysis of historic shoreline position data indicates that the beach fronting the Project site receded approximately 300 feet since the early 1900s. Throughout the 1900s, the area was gradually developed with single-family residences, and the shoreline was stabilized by construction of the rock revetment. Geologic maps of the region have depicted the surrounding soils to be beach sand deposits from the Holocene. Sands from this era are described as unconsolidated, poorly graded fine to coarse sands. The soils in the adjacent Carpinteria Slough are listed as estuarine deposits comprised of organic-rich clays, silts, and sands. Artificial fill is likely present throughout the area inland of the revetment from the development of the single-family residences (see Appendix G).

Data collected from previous geotechnical studies (Earth Systems Associates 2021) suggests that the sand deposits in the areas around the revetment extend to a depth of about 15 to 20 feet. The sand is underlain with alluvial deposits comprised of medium stiff to very stiff clay, clayey silt, and loose to medium dense clayey sand with layers of sand and silty sand interbedded in. A stratum of very dense sand is present at a depth of approximately 50 to 55 feet below ground surface (bgs). Groundwater in the area is shallow and assumed to be present at depths of 5 feet bgs or less.

3.6.2.3 Residential Infrastructure

Sand Point Road backing the Project site is developed with 25 private residences and accessory structures. Private residences are served by local utility service providers through lateral utility connections (e.g., electricity, natural gas, water, and wastewater). None of the residential properties are served by private on-site wastewater treatment systems (e.g., septic).

3.6.2.4 Mapped Sites and Existing Contamination

The results of a search of pertinent environmental regulatory lists and databases were reviewed for current or previous facilities listed at addresses located within a 0.5-mile search distance from the Project site. Appendix G contains the EDR report and includes a radius map showing the sites identified in reviewed databases. The EDR report includes details regarding facilities in the Project site and surrounding areas identified by Federal, State, and local environmental agency databases and provides maps showing the approximate locations of the listed facilities relative to the Project site.

The EDR report indicates that there are 10 sites within a 0.5-mile-radius of the Project site that are included in one or more of the environmental databases included in the EDR search. There is one biosolids site, one leaking underground storage tank listing, one hazardous waste site, six historic underground leaking storage tank sites, four Resource Conservation and Recovery Act (RCRA) hazardous waste sites, one e-Manifest hazardous waste site, one Cortese List site, and four Certified Unified Program Agency (CUPA). All of these sites are at a higher elevation relative to the Project site; however, these sites have a low potential to adversely impact the Project site based on lack of violations, historical data, site status, and distance from the Project site.

Table 3.6-1 provides a summary of the sites including site name and address, the database(s) they were identified on, position relative to the Project site, site status (where applicable), and a review of each site's potential risk to the Project site.

Table 3.6-1. EDR Sites Summary

EDR Map ID	Site Name/Address	Relative to Project Site (Distance, Direction, Gradient)	Database Listings	Site Status	Potential Risk to Project Site
1	Alan Wilson 701 Sand Point Road	Higher, 406 ft, NNW	Resource Conservation and Recovery Act (RCRA) - NonGen/No Longer Regulated E-Manifest List	N/A	Low. The site is verified as non-generating and only had one corrected E-Manifest Waste Line in 2024
2	Radis Property Management 3823 Santa Claus Lane	Higher, 583 ft, NW	RCRA - NonGen/No Longer Regulated	N/A	Low. The site is verified as non-generating with no violations.
A3/A5	Sandyland Nursery Co Inc 3890 North Via Real	Higher, 778 ft, NNW	Historical Underground Storage Tank (UST) Certified Unified Program Agency (CUPA) Listings	N/A	Low, the Underground Storage Tanks were installed in 1976 for gasoline storage on a plant nursery site. Identified on Historic UST database (1976) but there is no record of release and the is not listed on any current or Historic Leaking Underground Storage Tank (LUST) database(s).
A4	Carpinteria Biosolids Composting Project 3890 Via Real	Higher, 778 ft, NNW	Solid Waste Facility/Landfill Site	Proposed	Low. The site is currently proposed for use as a solid waste facility/landfill site by the County of Santa Barbara.
A6	Gallup-Carpinteria Co 3896 Via Real	Higher, 849 ft, NNW	Historical UST	N/A	Low. The USTs were installed in 1980 for gasoline storage on a plant nursery site. Identified on Historic UST database (1988) but there is no record of release and the is not listed on any current or historic LUST database(s).
B7/B8/B9	Ocean Breeze International 3910 Via Real	Higher, 908 ft, NNW	Historical UST RCRA - NonGen/No Longer Regulated CUPA Listings	N/A	Low. The site is verified as non-generating with violations, and the USTs were installed in 1983 for gasoline storage on a plant nursery site. Identified on Historic UST database (1983) but there is no record of

Table 3.6-1. EDR Sites Summary (Continued)

EDR Map ID	Site Name/Address	Relative to Project Site (Distance, Direction, Gradient)	Database Listings	Site Status	Potential Risk to Project Site
			Hazardous Waste Tracking System California Environmental Reporting System		release and the is not listed on any current or Historic LUST database(s). HWTS is inactive, and CERS is Agriculture Discharge
C10/C11	Jimenez Nursery Inc 3800 Via Real	Higher, 1,066 ft, NW	California Environmental Reporting System California Environmental Reporting System Hazardous Waste Generator RCRA - NonGen/No Longer Regulated	N/A	Low. The site is verified as non-generating with no violations from RCRA but the site has multiple CERS violations between noted between 2015 to 2024. Noted violations are administrative (e.g., failure to report) and operational (e.g., lack of or insufficient container labeling) in nature and the status of each violation is noted as “as returned to compliance”.
C12	Carpinteria Nursery Inc 3798 Via Real	Higher, 1,153 ft, NW	Historical UST	N/A	Low. The USTs were installed for waste and gasoline storage on a plant nursery site. Identified on historic UST database but there is no record of release and the is not listed on any current or historic LUST database(s).
C13	Anna Wolfe 3802 Via Real	Higher, 1,299 ft, NNW	Historical UST CUPA Listings	N/A	Low, the Underground Storage Tanks were installed for gasoline storage on a plant nursery site. Identified on historic UST database but there is no record of release and the is not listed on any current or historic LUST database(s).
D15	Western Farms/Western Farm Service Coastal Division	Higher, 1,561 ft, NW	Leaking Underground Storage Tank (LUST) Cortese List RCRA – Small and Large Quality Generator	Completed – Case Closed (2005)	Low. The LUST cleanup site is reported as completed in 2005. The site has no violations from RCRA.

Table 3.6-1. EDR Sites Summary (Continued)

EDR Map ID	Site Name/Address	Relative to Project Site (Distance, Direction, Gradient)	Database Listings	Site Status	Potential Risk to Project Site
	3717 Santa Claus Lane		Historical UST CUPA Listings Facility Index System Enforcement & Compliance History Information		

Note: 1. N/A identified sites do not include a hazardous materials release.
Source: Appendix G.

3.6.2.5 Hazard Screening and Scoring

The County of Santa Barbara MJHMP lists multiple hazard types by frequency/probability of occurrence, geographic extent, and potential magnitude/severity to create a ranking of overall significance. These hazards range from mudflow and debris flow, tsunamis, to civil disturbance. Hazardous materials release is noted as having an occasional frequency, with limited geographic extent, and limited severity, to give a medium possible significance and potential impact (County of Santa Barbara 2023). Occasional frequency has a between 1 and 10 percent probability in the next year or at least one chance in the next 100 years. A limited geographic extent has a possible reach of less than 10 percent of the county. Limited severity has the potential for some injuries, a complete shutdown of critical facilities for more than one week, and more than 10 percent of the property within the county is severely damaged.

3.6.3 Regulatory Setting

Hazards and hazardous material issues in the county are addressed through the effort of Federal, State, regional, and local government agencies. These agencies work together and individually to improve the risks of hazards through legislation, regulations, policy making, education, and numerous related programs. The individual roles these agencies play in regulating hazardous materials is described below.

3.6.3.1 Federal

Comprehensive Environmental Response, Compensation and Liability Act

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - commonly known as Superfund - was enacted by Congress on December 11, 1980 (and amended by the Superfund Amendments and Reauthorization Act on October 17, 1986), created a tax on the chemical and petroleum industries, and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment (USEPA 2024).

CERCLA resulted in the following:

- Establishment of prohibitions and requirements concerning closed and abandoned hazardous waste sites;
- provided for liability of persons responsible for releases of hazardous waste at these sites; and
- established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response.
- Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not

immediately life threatening. These actions can be conducted only at sites listed on the USEPA's National Priorities List.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List.

There is one superfund site located in Santa Barbara County regulated under the CERCLA, the Casmalia Hazardous Waste Management Facility located in north Santa Barbara County (County of Santa Barbara 2023). Due to the facility being 65 miles northwest of the project site, this facility had very low potential for impacting the project.

Resource Conservation and Recovery Act

The County's MJHMP (County of Santa Barbara 2023) states that "[h]azardous waste/materials are defined under the U.S. Congress' original statutory definition under the Resource Conservation and Recovery Act (RCRA) as substances with physical or chemical properties of flammability, corrosivity, reactivity, or toxicity, which because of quantity, concentration, or physical, chemical, or infection characteristics may cause or significantly contribute to increased mortality or serious illness (RCRA Section 1004[5])."

3.6.3.2 State

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) is authorized by the USEPA to enforce and implement Federal hazardous materials laws and regulations within the State.

3.6.3.3 Local

Santa Barbara County Comprehensive Plan, Seismic Safety & Safety Element

State law (California Government Code, Section 65300) requires that all cities and counties develop and adopt a comprehensive, long-term general plan that identifies existing and potential issues, as well as guidance for sustainable development of the county or city. The general plan must cover the local jurisdiction's entire planning area and factor in current and projected future growth and development. As per California law, the County of Santa Barbara has developed a comprehensive plan that includes a seismic safety and safety element. The Seismic Safety & Safety Element (SS&SE) mostly focuses on the specific geologic and soil problems, with an emphasis on faults and possible earthquakes. The SS&SE places the project site and surrounding areas in the east section of the South Coast Study Area, which stretches from Gaviota Pass to the Ventura County line and from the coastline to the approximate crest of the Santa Ynez mountains.

Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

Santa Barbara County, in coordination with each of the County's eight incorporated cities and six special districts, developed the MJHMP to comprehensively identify, evaluate, and mitigate the known hazards that may impact Santa Barbara County. The primary purpose of the MJHMP Update is to reduce or eliminate long-term risk to people and property from natural and human-caused hazards

and their effects on Santa Barbara County. It is used by local emergency management teams, decision-makers, and agency staff to implement mitigation to address known hazards. A Hazard Mitigation Plan was originally developed in 2006, updated in 2011 and 2017, and has undergone a comprehensive update for 2022. These updates occur every five years, consistent with Federal Emergency Management Agency (FEMA) requirements. The 2022 update complies with FEMA guidance and California Office of Emergency Services guidelines for Local Hazard Mitigation Plans.

3.6.4 Environmental Impact Analysis

This section discusses the potential hazards and hazardous material impacts associated with the proposed Project. Where there are potentially significant impacts, mitigation measures are proposed and the residual impact after mitigation is determined.

3.6.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact relating to hazards and hazardous materials if it would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

e) Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Santa Barbara County Thresholds

The County's *Environmental Thresholds and Guidelines Manual* includes thresholds for public safety that are relevant in determining project impacts related to hazards. Impacts from risks stemming from the following facilities and activities would be significant if: (a) they are subject to a discretionary land-use action (or would communicate their concerns for public safety to another jurisdiction that is

making a discretionary decision, such as routes for shipping hazardous materials); and (b) initial analysis reveals substantial evidence to support a fair argument that the potential of a significant impact to public safety could result from approval of the project subject to such action:

a) Oil wells and gas wells (unless abandoned or undergoing abandonment), and associated production.

b) Gas and hazardous liquids pipelines, including oil if a significant risk is expected, but exempting existing natural gas pipelines owned by a Californian public utility regulated by the California Public Utilities Commission and operated for the purpose of delivering gas directly to the Goleta storage field or consumers (except activities related to liquefied natural gas), and exempting new low-pressure distribution pipelines (125 pounds per square in gauge or lower) operated by a Californian public utility and regulated by the California Public Utilities Commission.

c) Oil and/or gas processing and storage facilities, including facilities for removing sulfur, removing gas liquids, and compressing gas.

d) Oil refineries.

e) Handling, storage, and transport of compressed natural gas or methanol related to facilities for refueling motor vehicles with these materials.

f) All handling, storage, and transport of chlorine in containers with a capacity of one ton or more, or an equivalent amount of chlorine in bottles or cylinders connected through a common header.

g) Handling, storage, and transport of anhydrous ammonia in containers with a capacity of one ton or more, or an equivalent amount of anhydrous ammonia in bottles or cylinders connected through a common header.

h) Handling, storage, and transport of acutely hazardous rocket propellants such as nitrogen tetroxide (including instances where the County would communicate with other jurisdictions about discretionary actions that affect public safety in this County such as designation of routes for transporting hazardous materials).

i) Handling, storage, and transport of spent radioactive fuel and other high-level, radioactive materials (including instances where the County would communicate with other jurisdictions about discretionary actions that affect public safety in this County such as the designation of route for transporting hazardous materials).

j) Storage of natural gas liquids, including liquefied petroleum gas, unless such storage is limited to a single container with a maximum capacity of 10,000 gallons or less and does not require refilling more than once weekly.

k) Facilities of a type not addressed in 1-10 above, and not exclusively dedicated to retail distribution of consumer products (such as gasoline stations, or hardware, paint, and dry-cleaning stores) that: (a) use a classified Class A or B explosive (per Title 49, Code of Federal Regulations [CFR], 171-179); or (b) use substances classified as high-level radioactive materials; or (c) use specified quantities of regulated substances (pursuant to Title 19 of the California Code of Regulations [CCR], Division 2, Chapter 4.5) and meet all of the following criteria.
    i. The regulated substance(s) is stored as a compressed gas or liquefied compressed gas, or is expected to vaporize or evaporate quickly upon release (e.g., through failure of container, piping, or valve), or is stored as a liquid at a temperature that exceeds its boiling point.

ii. The regulated substance(s) has the potential to cause a significant risk to public safety according to the County's environmental thresholds. (For example, the regulated substance(s) exists as a gas or vapor upon accident release, and will either release into the open atmosphere or become dangerously explosive in a confined environment.)

iii. The regulated substance(s) is associated with a specific activity that is generally considered to be incompatible with surrounding land uses.

l) All development proposed in proximity to one or more existing hazardous facilities as described above, unless (a) the hazardous facility(ies) are inoperative for the purpose of abandonment, or (b) the proposed development is a single-family residential unit which the County considers to be a voluntary exposure to the hazardous facility, or (c) the proposed development does not require a discretionary land-use action.

Non-Applicable Thresholds/Insignificant Impacts

The proposed Project would repair the existing rock revetment that has been in place for 42 years. Improvements include the addition of new armor rock to fill voids, correcting low points and reduced widths of the revetment crest, and addressing areas where existing armor rock has been dislodged. It would also include the addition of native plants and removal of nonnative plants in the swale on the landside of the revetment. As discussed in Chapter 2, *Project Description,* the County and/or its construction contractor would implement various construction BMPs that would avoid or minimize impacts to hazards and/or the potential for release of hazardous materials to the environment during construction and maintenance activities. With the implementation of standard construction BMPs, construction and ongoing presence of the restored structure is not anticipated to have significant impacts to the following issue areas:

Schools: There are no schools located within a 0.25-mile radius of the Project site.

Hazardous Materials Sites: The Project site is not located on a Government Code Section 65962.5 site. The EDR reports identifies sites within a 0.5-mile (ranging between 0.077 and 0.296 miles) radius to the northwest or north-northwest of the Project site (see Appendix G); however, these sites are not located within the immediate vicinity of the Project site, and the proposed Project would not result in a site-specific impact or contribute to a cumulative impact on hazardous materials or risk of upset.

Airports: There are no airports located within two miles of the Project site.

Wildfire: The Project site is located in a coastal area of the county that is not within an area of moderate to very high wildfire severity. The existing structure has not increased the risk of wildfire for the surrounding communities, and implementation of the proposed Project would not increase the risk of wildfire for the surrounding communities.

County of Santa Barbara Thresholds: The proposed Project would not cross any significance thresholds for the County of Santa Barbara. The proposed Project would not involve the construction or operation of any of the types of uses or activities for which the County has adopted thresholds for public safety that are relevant in determining project impacts related to hazards.

Methodology

As previously described, the information and analysis in this section is based on information produced by the County, such as the County's Comprehensive Plan SS&SE, the MJHMP, information from recent environmental documents prepared for the County, and review of pertinent environmental

regulatory lists and databases. The discussion is also based upon the results of a Hazardous Materials Technical Memorandum prepared for the Project by Moffatt & Nichol (see Appendix G). The technical memorandum summarizes the results of database searches and potential sources of existing contamination for the Project, including the results of an EDR Radius Map Report that was generated for the Project site.

Impacts evaluated below are focused only on those hazardous materials impacts that could occur from Project construction and maintenance. This is due to the fact that following construction and maintenance activities, the Project will not include the storage, use, handling, or transportation of hazardous materials. No Project operational activities would occur, and the Project would not have any long-term operational impacts on or related to hazardous materials or risk of upset of hazardous materials.

3.6.4.2 Project Impacts

Table 3.6-2 provides a summary of the proposed Project's impacts related to hazardous materials. A detailed discussion of each impact follows.

Table 3.6-2. Summary of Potential Hazardous Materials Impacts

Hazards and Hazardous Materials Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact HM-1. The proposed Project could result in a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials.	Insignificant	No mitigation required	Insignificant
Impact HM-2. The proposed Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Insignificant	No mitigation required	Insignificant
Impact HM-3. The proposed project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact HM-1. The proposed Project could result in a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials.

The proposed Project is not likely to result in a significant hazard through routine transport or disposal of hazardous material during construction. Materials used for construction would be clean imported materials from an approved source. There is some limited potential of risk of upset from the use of construction vehicles and equipment (e.g., inadvertent leaks), as well as fueling and servicing of this equipment. However, hazardous material use on the Project site would be limited to small quantities of fuels and lubricants that are typical of construction sites. The proposed standard construction BMPs described in Chapter 2, *Project Description,* would be used to limit the possibility of inadvertent release of these materials. For instance, the BMPs would include the storage of hazards materials only in designated staging areas, the implementation of erosion and sediment control BMPs,

the preparation of a spill prevention, control, and countermeasure plan to safeguard against an unintentional release of fuel, lubricants, or hydraulic fluid from construction equipment, and monitoring of excavation activities for possible presence of contamination. It is not anticipated that disposal of hazardous materials beyond typical construction/demolition debris would be required. Any construction debris would be disposed of at an approved facility (based on debris type) and in accordance with all applicable regulations.

The County of Santa Barbara Public Works Transportation Division is responsible for emergency response that involves roadways throughout the county. The Traffic Section would assist emergency services to determine viable alternative routes and detours, which would be incorporated into the proposed Traffic Control Plan (see Section 3.11, *Transportation*).

As previously described, there would be no significant hazard to the public or environment following the completion of construction and maintenance activities associated with the proposed Project. The continued existence of the revetment would not include or require the proposed use, routine transport, or disposal of hazardous materials or otherwise impact emergency responses.

Overall, public and environmental hazards from transport, use, or disposal would be *insignificant.*

Impact HM-2. The proposed Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The proposed Project would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment because: 1) excavation to complete the proposed Project is anticipated to be limited to trenching to access the toe of the revetment; 2) materials used for construction would be clean imported materials from an approved source; and 3) based on historical records review for the Project site and surrounding areas. Construction of the dune vegetation enhancement feature may require the import of a small amount of clean sand obtained from a commercial or opportunistic source, for dune vegetation establishment in locations where sand cover does not exist. It is anticipated that sand would be acquired from Bee Rock Quarry located to the northwest, and/or Pacific Rock Inc. located to the southeast.

Revetment repair is estimated to require up to 1,500 roundtrip haul truck trips, dune vegetation installation and removal of non-native plants is estimated to require 230 trips, and removal and construction of stairways is estimated to take 20 roundtrip trips. Concrete and concrete trucks would be required to reconstruct the stairways from the existing dwellings.

As described in Impact HM-1, hazardous material use on the Project site would be limited to small quantities of fuels and lubricants that are typical of construction sites. Inadvertent leaks or vehicle releases from material transport, truck hauling, and heavy equipment use has the highest potential risk for hazardous material upset. BMPs described in Chapter 2, *Project Description,* would be used to limit the possibility of inadvertent release of these materials. Thus, the likelihood of occurrence is low, with a very limited geographic extent due to the location of the Project site along the shoreline, and a low likelihood of shutdown of any critical facilities. There is the potential that previously unidentified contaminated media may be encountered during construction (e.g., excavation). Contaminated soil and groundwater (if encountered) would be handled, stored, transported, and disposed of in accordance with all Federal, State, and local regulations, including those for worker safety. The

proposed standard construction BMPs would also be implemented for handling, transportation, and disposal of any contaminated media potentially encountered during construction activities.

Therefore, impacts associated with foreseeable upset and accidental conditions during construction and maintenance activities associated with the proposed Project would be *insignificant.*

Impact HM-3. The proposed project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction activities associated with the proposed Project could impair or interfere with an emergency response or evacuation plan as haul trucks, concrete trucks, and construction worker commutes would use the surrounding roads. However, in the context of the existing traffic volumes, the approximately 1,750 truck trips over the proposed 6 to 7 months construction period would be negligible. Further, as described in Chapter 2, *Project Description,* and Section 3.11, *Transportation,* as part of the proposed Project, the construction contractor would develop and implement a Traffic Control Plan approved by the County Resident Engineer prior to starting construction activities to alleviate some of the traffic congestion. As part of the Traffic Control Plan, the construction contractor would utilize a flagger at the intersection of Spindrift Lane and Santa Clause Lane to direct construction truck traffic entering and exiting the site, which would help to avoid the impairment of emergency response or evacuation in the event that such instances occur during construction and/or maintenance activities. Following the completion of construction, the revetment would have no impact on emergency operations. Therefore, the proposed Project would have an *insignificant* impact on emergency plans.

3.6.4.3 Cumulative Impacts

Pending and planned projects (as of May 2025) in the South Coast region of Santa Barbara County are primarily inland and upcoast from the Project site. They would not create conditions that would result in a cumulative impact regarding hazardous materials or risk of upset as a result of implementing the Project. There would be no cumulative impacts as a result of the proposed Project.

3.6.4.4 Proposed Mitigation

No mitigation measures are required.

3.6.4.5 Residual Impacts

Impact HM-1. Construction and maintenance activities associated with the proposed Project would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, particularly given the implementation of Project BMPs. There would be no significant hazard to the public or environment once the construction and maintenance activities associated with the proposed Project are complete. Impacts would be *insignificant.*

Impact HM-2. Construction and maintenance activities associated with the proposed Project would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, particularly given the implementation of BMPs. There would be no significant hazard to the public or environment once the Project construction and maintenance activities are complete. Impacts would be *insignificant.*

Impact HM-3. The proposed Project would not impair or interfere with an emergency response or evacuation plan. Implementation of standard construction BMPs, which include implementation of a Traffic Control Plan (see Section 3.11, *Transportation*), would help to avoid the impairment of emergency response or evacuation in the event that such instances occur during construction and maintenance. There would be no impact on emergency plans once the project is in operation. Impacts would be *insignificant.*

Section 3.7
Hydrology, Water Quality, and Coastal Processes

3.7.1 Introduction

This section describes the affected environment and regulatory setting for hydrology, water quality, and coastal processes, the potential for impacts on hydrology, water quality, and coastal processes that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and mitigation measures to reduce identified impacts where possible. The information and analysis in this section is based on information produced by the County of Santa Barbara (County), including the County's Coastal Land Use Plan (CLUP), Integrated Regional Water Management Plan (IRWMP), and the Santa Barbara County Comprehensive Plan: Conservation Element (County of Santa Barbara 2009). The discussion of water quality within the vicinity of the Project site is broadly derived from the above sources as well as the Central Coast Regional Water Quality Control Board (CCRWQCB) Central Coast Basin Plan (Basin Plan), State Water Resources Control Board (SWRCB) 2024 Integrated Report, and the Water Quality Assessment produced by Moffatt & Nichol (2025b; see Appendix H). The discussion of coastal processes is derived from the Coastal Hazards Assessment conducted by Moffatt & Nichol (2025a; see Appendix I). The impact determinations are based on consistency with the California Environmental Quality Act (CEQA) thresholds and the County's existing policies and regulations related to hydrology, water quality, and coastal resources.

3.7.2 Environmental Setting

The Project site is located along the Pacific Ocean (Santa Barbara Channel) and adjacent to the Carpinteria Marsh. A number of creeks, streams, and other outlets discharge into the ocean by way of the Santa Ynez Mountains. Coastal processes are impacted by a number of developments inland (i.e., dams, debris basins, channelized waterways) and along the coast (e.g., Santa Barbara Harbor).

Water quality is regulated by the SWRCB, which designates nine Regional Water Quality Control Boards (RWQCB) that manage water quality through the development and implementation of basin plans. The Project area is regulated under the Basin Plan that is implemented by the CCRWQCB (Region 3).

3.7.2.1 Climate and Hydrology

Santa Barbara County has a Mediterranean climate with several microclimatic regions. Summers are warm and dry while winters are cool and often wet, with average rainfall in the City of Santa Barbara at around 18 inches per year. The County's east/west transverse mountain ranges cause an orographic effect when storms approach from the Pacific Ocean. Most precipitation occurs November through March. Temperatures stay moderate throughout the year along the coast due to moist air from the Pacific Ocean (Dudek 2019).

The proposed Project is located in the South Coast Hydrologic Planning Area (Unit 15, 315.34). It is adjacent to the Carpinteria Salt Marsh, Santa Monica Creek, El Estero Nearshore Zone, and Pacific Ocean.

Surface Water

Water bodies in and near the Project area, along with their beneficial uses are included in Table 3.7-1.

Table 3.7-1. Beneficial Uses by Water Body (CCRWQCB 2024)

Water Body	Beneficial Uses
Pacific Ocean	Marine habitat, navigation, rare, threatened or endangered species, water contact recreation, non-contact water rection, shellfish harvesting
Carpinteria Salt Marsh	Preservation of biological habitat, commercial and sport fishing, estuarine habitat, migration of aquatic organisms; special status species, recreation, and support fish spawning habitat.
Carpinteria Creek	Municipal and domestic supply, rare, threatened or endangered species, water contact recreation, non-contact water recreation, spawning, reproduction and/or early development, warm freshwater habitat, wildlife habitat, agricultural supply, preservation or biological habitats of special significance, cold freshwater habitat, commercial and sport fishing, estuarine habitat, freshwater replenishment, groundwater recharge, migration of aquatic organisms
Arroyo Paredon Creek Overflow 1	Agricultural supply, cold freshwater habitat, commercial and sport fishing, estuarine habitat, freshwater replenishment, groundwater recharge, migration of aquatic organisms, municipal and domestic supply, rare, threatened or endangered species, water contact recreation
Santa Monica Creek	Agricultural supply, preservation of biological habitat, cold freshwater habitat, freshwater replenishment, commercial and sport fishing, groundwater recharge, municipal and domestic water supply, recreation, fish spawning habitat
El Estero Nearshore Zone	Marine habitat, navigation, special status species, recreation, shellfish harvesting
El Estero Offshore Zone	Marine habitat, navigation, special status species, recreation, shellfish harvesting
Pacific Ocean (Coal Oil Pt. to Rincon Point Nearshore Zone)	Commercial and sport fishing, industrial service supply, marine habitat, navigation, special status species, recreation, shellfish harvesting, wildlife habitat
Pacific Ocean (Coal Oil Pt. to Rincon Point Offshore Zone)	Commercial and sport fishing, industrial service supply, marine habitat, navigation, special status species, recreation, shellfish harvesting, wildlife habitat
Franklin Creek	Recreation, agricultural supply, cold freshwater habitat, commercial and sport fishing, freshwater replenishment, groundwater recharge, migration of aquatic organisms, municipal and domestic water supply, special status species, fish spawning habitat

Impaired Waters

There are impaired waters that are included on the Clean Water Act (CWA) 303(d) list (2024) near the Project site, including Carpinteria Marsh, Franklin Creek, Santa Monica Creek, and Arroyo Paredon (CCRWQCB 2024). Franklin Creek is listed as impaired on the CWA 303(d) list (2016) and managed under a Total Maximum Daily Load (TMDL) plan (Franklin Creek Nutrients TMDL) due to high

concentrations of nitrates and phosphates. The increased nutrients are also contributing to excess algal growth in the Creek during the dry season (May through October). Agriculture is the primary source of nitrogen and phosphorus in the creek. Construction stormwater discharges are not considered a significant risk or cause of observed nutrient water quality impairments. Permitted operations are generally expected to be meeting proposed wasteload allocations (CCRWQCB 2017). The Arroyo Paredon is impaired and managed under the Arroyo Paredon Diazinon and Nitrate TMDL due to exceedance of the water quality objective for pesticides and toxicity. The Franklin Creek Nutrients TMDL is located west of the Project site, and the Arroyo Paredon Diazinon and Nitrate TMDL is located northeast of the Project site.

Santa Monica Creek is also listed as impaired due to pH levels. Because these waters all flow into Carpinteria Marsh, it too is impaired. It is listed on the 303(d) list (2024) for nutrients and dissolved oxygen. The Carpinteria Salt Marsh and Santa Monica Creek do not have TMDL plans (CCRWQCB 2024). Table 3.4-1 provides more information on specific pollutants and sources of the pollutants for these water bodies. On the seaward side of the Project site, the Pacific Ocean (Coal Oil Point to Rincon Point) was included on the 303(d) list (2020) for toxins, but has been removed from the 2024 list (SWRCB 2020).

Table 3.7-2. Impaired Water Bodies Near the Project Site (SWRCB 2024)

Impaired Water Body	Pollutant Category	Sources	Estimated TMDL Completion Date
Arroyo Paredon	Toxicity (Diazinon) Metals (Boron) Salinity/Total dissolved solids/ Chlorides/Sulfates (Chloride and Sodium) Pathogens (fecal coliform)	Toxicity: Agriculture, Urban runoff No source analysis for the other categories	2035
Carpinteria Marsh	Nutrients Dissolved oxygen	No source analysis	2035
Franklin Creek Watershed	Nutrients (Nitrates) Pathogens (E. coli) Salinity/Total Dissolved Solids/Chlorides/Sulfates (Sodium) Toxicity pH	Nitrates: agriculture, construction/land development, natural sources, urban runoff No source analysis for the other categories	2035
Santa Monica Creek	pH	No source analysis	2035

Groundwater

The Project site is located on Groundwater Basin 3-18 (Carpinteria Basin) that is approximately 6,000 acres and is primarily supplied by Lake Cachuma and is not in overdraft condition. The CCRWQCB has established the following water quality objectives for this basin: Total Dissolved Solids (TDS), Chloride (CI), Sulfate (SO_4), Boron (B), Sodium (Na), and Nitrogen (N).

The primary sources of recharge to the Carpinteria Basin aquifers include infiltration of precipitation, percolation of streamflow, and percolation of irrigation return flow. Subsurface outflow from the

Basin's Storage Unit 1 is believed to occur from Serena Park to Sand Point, where the Project is located (GSI Water Solutions 2024).

Wetlands

The Project site is located directly adjacent to the 35.75-acre Carpinteria Salt Marsh. The marsh is primarily classified by the U.S. Fish and Wildlife Service as Estuarine and Marine Wetland Habitat (E2EM1N, E2SSP, E2USN, and E2USP). The seaward side of the Project site includes Estuarine and Marine Wetland Habitat (M2USN) and Estuarine and Marine Deepwater Habitat (M1UBL). The Carpinteria Salt Marsh is a Critical Coastal Area[1] that receives water from Franklin Creek, Santa Monica Creek, and several underground conveyances west of Santa Monica Creek. The tidal inlet for the marsh (E2USP) is located adjacent to the southern end of the Project site.



Figure 3.7-1. Wetland Classifications Adjacent to the Project Site (USFWS n.d.)

3.7.2.2 Site Geology

The Project site is located in the Western Traverse Range Province which extends eastward from Point Arguello in Santa Barbara County to the Mojave and Colorado Desert Provinces in Kern and San Bernardino Counties, approximately 300 miles in width. Although this region is known to be seismically active, there are no known faults at or in the immediate vicinity of the revetment. The

[1] California Coastal Commission. N.d. Critical Coastal Areas Map Viewer. https://experience.arcgis.com/experience/268e7af00a904510bac77312e0f39fc0/page/Page. Accessed May 30, 2025.

project area does not fall within an Alquist-Priolo fault rupture hazard zone (Earth Systems Associates 2021).

Geologic maps of the region have depicted the surrounding soils to be beach sand deposits from the Holocene. Sands from this era are described as unconsolidated, poorly graded fine to coarse sands. The soils in the adjacent Carpinteria Slough are listed as estuarine deposits comprised of organic-rich clays, silts, and sands. Artificial fill is likely present throughout the area inland of the revetment from the development of the residential homes.

Fugro, under subcontract to Moffatt & Nichol, performed a geotechnical study in 2024, in support of the proposed Project. Data collected from previous geotechnical studies (Earth Systems Associates 2021) suggests that the sand deposits in the areas around the revetment extend to a depth of approximately 15 to 20 feet. The sand is underlain with alluvial deposits comprised of medium stiff to very stiff clay, clayey silt, and loose to medium dense clayey sand with layers of sand and silty sand interbedded in. A stratum of very dense sand is present at a depth of approximately 50 to 55 feet below ground surface (bgs). Groundwater in the area is shallow and assumed to be present at bgs depths of 5 feet or less (Fugro 2024).

3.7.2.3 Meteorological and Oceanographic Conditions

Present Day Water Levels

Present day water levels at Project site are approximated by water level records from the nearest tide gauge. The National Oceanic and Atmospheric Administration (NOAA) Santa Barbara tide station (Station ID 9411340) is the nearest active tidal station to the Project site. This station is located within the Santa Barbara Harbor approximately 8.5 miles west of the Project site. The station has water level data from 1974 to present-day with data gaps from 1981-1990 and 1998-2005. Tidal datums at the Santa Barbara tide station for the current tidal epoch (1983-2001) are provided in Table .

Table 3.7-3. Tidal Datums at Santa Barbara Tide Station (NOAA Station 9411340; 1983-2001 Epoch)

Tidal Datum	Elevation (ft NAVD)
Highest Observed Water Level Dec. 12, 2012, 16:36	7.52
Highest Astronomical Tide July 14, 2022, 04:48	7.10
Mean Higher High Water (1983-2001)	5.26
Mean High Water	4.51
Mean Sea Level	2.65
Mean Low Water	0.84
Mean Lower Low Water	-0.13
Lowest Astronomical Tide Jan. 11, 2005, 00:06	-2.18
Lowest Observed Water Level Dec. 17, 1933, 08:00	-3.00

Extreme Water Levels

High water levels are caused by extreme astronomical tides, natural climate fluctuations such as El Niño, and storm events. The co-occurrence of these phenomena will trigger the highest water levels along the coast and therefore the largest amount of flooding and coastal erosion. Moffatt & Nichol (2025a) calculated extreme still water levels (not incorporating wave runup) for 1, 2, 10, and 100-year-return storm events. The analysis included data from the Santa Barbara and Santa Monica NOAA Tide Stations. These estimated extreme high-water elevations are shown in Table 3.7-4.

Table 3.7-4. Extreme Water Levels at Nearby NOAA Tide Stations

Return Period	Santa Barbara Extreme Water Level (ft NAVD)	Santa Monica Extreme Water Level (ft NAVD)
1 year	+6.8	+7.0
2 years	+7.2	+7.3
10 years	+7.5	+7.6
100 years	+7.6	+8.0

Waves

Moffatt & Nichol (2025a) analyzed three nearby historic wave data sources to quantify extreme wave conditions for the Project site. Data from the Wave Information Study (WIS), National Data Buoy Center (NDBC), and Coastal Data Information Program (CDIP) were used for the analysis (Moffatt & Nichol 2025a). Findings indicate that offshore wave heights range from 19 to 22 feet (depending on the data source) for a 50-year storm and 21 to 23 feet for a 100-year storm. This wave height is reduced to approximately 14 feet and 15 feet in the nearshore for the 50-year and 100-year storm respectively. Reduction in wave height when entering the nearshore is likely due to the dominant swell direction being oblique to the shoreline so that wave refraction reduces the amplitude of wave height when waves reach shallower water. Most large wave events at the Project site are associated with large winter storms traveling across the central and northern Pacific Ocean.

Table 3.7-5. Extreme Wave Heights

Return Period	Extreme Significant Wave Height (feet)		
	NDBC Buoy	WIS Point	CDIP
50 years	21.7	19.4	13.6
100 years	23.16	21.2	14.9

Wave direction in the vicinity of the Project site is predominantly limited to WNW-WSW swell directions due to the southerly wave shadowing from the Channel Islands. Based on an analysis of historic wave data from the NDBC buoy, typical wave periods range from 5 to 20 seconds with larger wave events skewed toward longer wave periods (14 to 20 seconds). Some very long period events (22 seconds) have been recorded (Moffatt & Nichol 2025a).

Sea Level Rise Projections

Sea level rise (SLR) science involves both global and local physical processes. Future sea level rise projections are created based on the current best scientific understanding of these processes using

advanced global, regional, and local modeling techniques. These projections are periodically updated to reflect scientific advancements. At the State level, SLR projections published in the 2024 Ocean Protection Council (OPC) report State of California Sea Level Rise Guidance (California Ocean Protection Council 2024) represent the current best-available science on potential sea level rise. This guidance was subsequently adopted by the California Coastal Commission (CCC) and used within their updated guidance document to provide detail specific to the Coastal Act (CCC 2024).

The 2024 OPC Sea Level Rise Guidance provides sea level rise scenarios spanning a range of potential future emissions pathways for each tide gauge in California. These projections and emissions pathways were taken directly from the methodology of the most recent Intergovernmental Panel on Climate Change (IPCC) climate report (IPCC 2019). This methodology predicts less acceleration of sea level projected before 2050 and has overall greater certainty in the amount anticipated in the next 30 years when compared to previous SLR guidance. Sea level scenarios are offered in five different categories: Low, Intermediate Low, Intermediate, Intermediate High, and High. The determination of which scenario to select is dependent on the level of risk aversion the project is willing to accept. It is recommended for most planning projects to evaluate scenarios between Intermediate, Intermediate-High, and High. Table 3.7-6 shows a range sea level rise values at the selected time horizons from the 2024 Guidance document.

Four SLR scenarios were selected for analysis of the proposed Project based on the its 50-year design life, as highlighted in yellow in Table 3.7-6. These SLR values help show potential future coastal hazards at the Project site to represent the middle of the design life (2050), end of design life (2080), and well past the end of the design life (2100). The Intermediate risk aversion scenario was selected for each SLR time horizon as well as an additional Intermediate-High scenario at the 2100 time horizon for a more conservative projection.

Table3.7-6. Sea Level Rise Scenarios for Selected Timelines for the Santa Barbara Tide Gauge

Risk Aversion Scenario	2050	2080	2100
Low	+0.3 ft	+0.5 ft	+0.6 ft
Intermediate-Low	+0.5 ft	+0.9 ft	+1.2 ft
Intermediate	+0.6 ft	+1.6 ft	+2.8 ft
Intermediate-High	+0.9 ft	+2.8 ft	+4.5 ft
High	+1.1 ft	+3.8 ft	+6.3 ft

Littoral Cell Dynamics

Littoral cells are self-contained coastal compartments that are geographically bound by major headlands, submarine canyons, and other features that do not allow sediment to move from one cell to the next. Each littoral cell has various sediment sources that provide sand to the shoreline, sediment sinks where sand is lost, and unique longshore sediment transport patterns that move sand along the shoreline. The Project site is located within the Santa Barbara littoral cell, which extends approximately 140 miles from the mouth of the Santa Maria River (to the north) to Mugu Submarine Canyon (to the south; near Point Mugu) and is one of the longest cells in Southern California. Figure 3.7-2 shows the location of the Project site within this cell along with relevant wave shielding from the Channel Islands, the dominant sediment transport direction, and nearby wave data sources. The

dominant direction of sediment transport on this stretch of coastline is from north/west to south/east and is considered by many studies to be mostly unidirectional (Patsch and Griggs 2006).

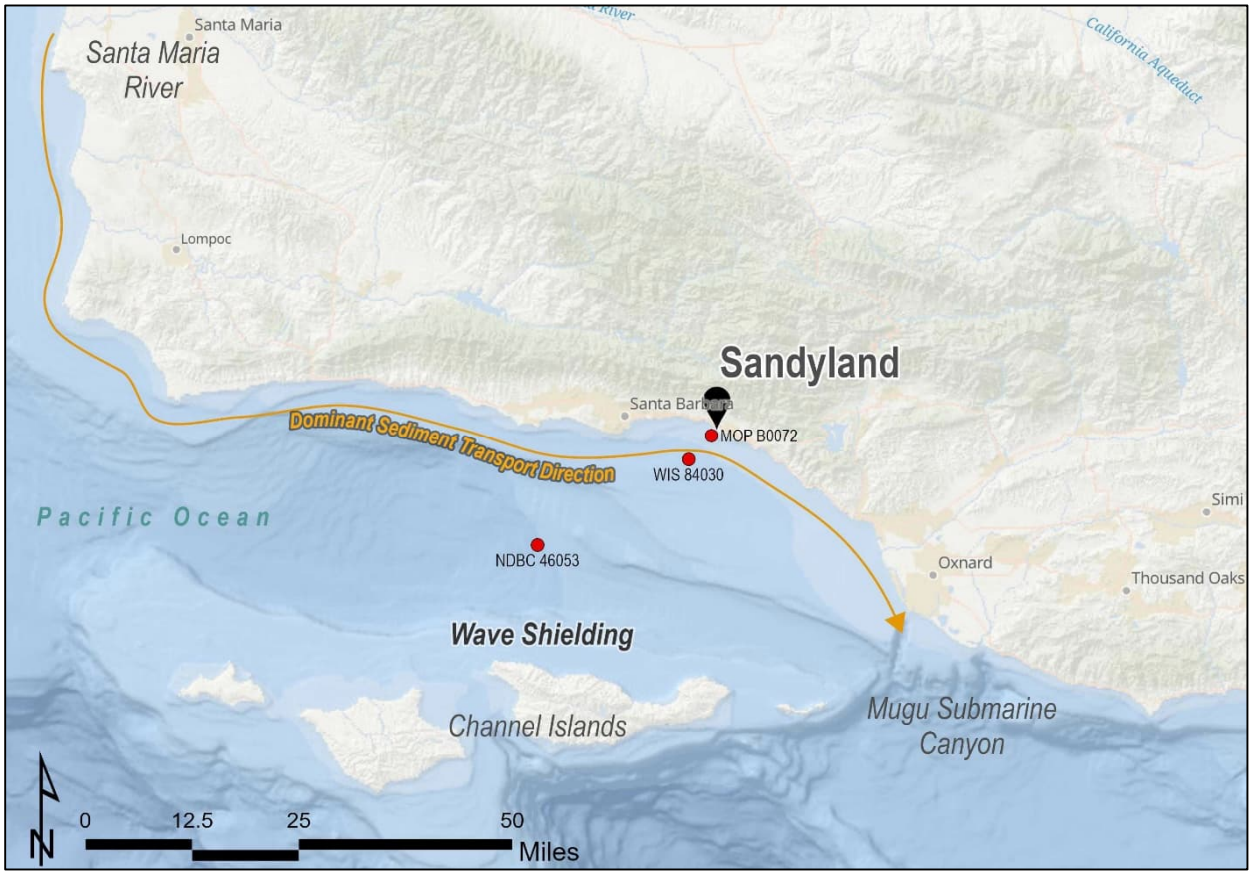


Figure 3.7-2. Dominant Sediment Transport Direction in the Santa Barbara Channel

Generally, the beaches within this reach of the Santa Barbara littoral cell have historically been stable (neither eroding nor accreting; BEACON 2009) and are largely supplied with sediment from fluvial deposits. However, several studies (Patsh and Griggs 2008; Willis and Griggs 2003) have found that the damming of coastal rivers and streams has significantly decreased the sediment supply to beaches within the Santa Barbara littoral cell. Patsch and Griggs (2008) found that fluvial sediment supply within the Santa Barbara littoral cell has been reduced by approximately 40 percent from dams when compared to historic fluvial sediment supply in a natural state without dams. Willis and Griggs (2003) found that the damming of the Santa Maria River and the Santa Ynez River caused a 68 percent and 51 percent reduction in their sediment supply, respectively. These sediment supply reductions play a significant role in the historic erosion rates within the Santa Barbara littoral cell. The major dams along these rivers, however, were built in the early- to mid-1900s and the littoral cell has since somewhat equilibrated to their effects.

3.7.2.4 Flood Hazards

Still Water (Tidal) Flooding: To determine the extent of present-day and future flood hazards due to still water levels (ocean tides) at the Project site, the elevations associated with the mean higher high water (MHHW) (mean of daily maximum water levels), annual extreme water level, and 100-year

extreme water level for present-day and future sea level conditions were compared to the crest elevation of the existing revetment. The lowest existing points along the crest are at an elevation of approximately +14 feet NAVD, which is higher than the 100-year extreme water level, even with +4.5 feet of future potential SLR.

Coastal Storm Flooding: To understand vulnerability to flooding during coastal storm events at the Project site, the U.S. Geological Survey (USGS) Coastal Storm Modeling System (CoSMoS) mapping tool was used. The tool considers tides, sea level anomalies such as El Niño, storm surge, wave set-up, sea level rise and future shoreline changes. The flood extents are areas projected to be flooded for at least one minute under a given sea level rise and storm scenario and include areas in the Project site along both the seaward side and marsh edge. The intermittent flooding from wave runup and overtopping is not included in the CoSMoS mapping. The CoSMoS results indicate:

- For present-day sea levels, CoSMoS shows no ocean side flooding of the existing revetment during the 100-year water levels, which does not necessarily mean overtopping will not occur from wave runup and overtopping (separately discussed further below). On the marsh edge, with 100-year water levels, a low point in the northern section of the Sand Point Road is breached and the inland sides of several houses become flooded.
- With up to 1.6 feet of SLR, there is still no flooding of the existing revetment from the seaward side, however, flooding from the marsh edge worsens for the 100-year storm event. Sand Point Road is breached along the southern portion of the road and the roadside edges of many of the properties become flooded.
- With 3.3 feet of SLR, the 100-year water levels will begin to flood the existing revetment and fill the swale area along the central and southern portions of the revetment. The backland area along the marsh edge will regularly flood during mean high water onto Sand Point Road and into the majority of the Sandyland properties.
- With 4.9 feet of SLR, the revetment will regularly be overtopped during mean high water and almost all of the Sandyland properties will be inundated from the marsh edge.

Wave Runup and Overtopping: Wave runup along the revetment was evaluated for depth-limited breaking wave heights calculated using a highly scoured beach condition, a 100-year water level elevation, and a wave period of 18 seconds. The runup estimates for this study used two different analysis methods: the U.S. Army Corps of Engineers (USACE) Shore Protection Manual method and the Federal Emergency Management Agency's (FEMA's) Technical Advisory Committee for Water Retaining Structures (TAW) method (a more updated approach to calculate runup). The 100-year wave runup with present-day sea levels is projected to reach a theoretical elevation of approximately 24 feet NAVD and thus overtop the existing revetment. As SLR increases, wave runup elevations increase exponentially. With 4.5 feet of SLR, wave runup elevations are projected to reach a theoretical elevation of approximately 37 feet NAVD. These wave runup elevations are conservative and reflect extreme coastal conditions (i.e. 100-year-return storm waves, extreme high tides, peak wave period, and highly eroded beach condition).

Overtopping occurs when wave runup elevations are greater than the crest elevation of the shore protection structure. Overtopping is projected to occur at the Project site for all sea level scenarios analyzed, including present-day. However, the design of the revetment includes a swale/splash wall landward of the revetment crest which allows for overtopping to occur without damage to landward infrastructure. The acceptable level of overtopping used for the design revetment is 2.0 cubic feet per second per foot (cfs/ft) based on critical values of overtopping for revetments with paved backlands,

as specified in the USACE Coastal Engineering Manual. The overtopping rate for present-day sea levels is projected to be 0.9 cfs/ft for the design revetment, which is within the acceptable threshold. With 1.6 feet and more of future SLR, the projected overtopping rates for the design revetment exceed the threshold.[2]

Fluvial Flooding: During high rains, large amounts of freshwater are pushed through the Carpinteria Salt Marsh from the Santa Monica Creek and Franklin Creek watersheds. The marsh tidal inlet is generally open for flow in/out of the ocean, thus allowing for these fluvial inputs to discharge into the ocean without backland flooding. However, if the inlet were to become blocked by sediment, the fluvial input of freshwater into the marsh could cause increased backland flooding to occur.

Groundwater Flooding: As sea levels rise, groundwater will be pushed closer to the surface. This can lead to future emergent groundwater issues at sites with an already high water table. The CoSMoS tool provides projections of the depth of groundwater below the existing ground surface with various future sea level rise projections. At present day water levels, CoSMoS predicts groundwater to be at depths between 3.3 and 6.6 feet bgs for the majority of the Project site. Some areas closest to the marsh show groundwater at depths less than 3.3 feet bgs, while areas under the residential structures are predicted to be much deeper at 6.6 to 16.4 feet bgs. With up to 1.6 feet of SLR, the groundwater depth stays relatively consistent as present-day conditions. At 3.3 feet of SLR, the data suggests groundwater for the entire site will be no deeper than 6.6 feet bgs. Based on this CoSMoS modeling, it seems that emergent groundwater is much less of an issue at the Project site than coastal and backland flooding.

3.7.2.5 Shoreline Erosion

Analysis of historic shoreline position data indicates that the beach fronting the Project site receded approximately 300 feet since the early 1900s. This large retreat of the beach was likely due to the upcoast construction of the Santa Barbara Harbor in the 1930s which impeded (blocked) downcoast sediment transport and construction of dams in the watershed which impeded sediment delivery to the coastline. Over the time period of approximately 1984 to 2017, shoreline records indicate that the average shoreline position had an overall long-term accretional trend of 1.7 feet per year. However, in the past 10 years, an inflection in the shoreline position trend occurred and an overall erosional trend of 3.5 feet per year has been observed over the recent decade. The transition point from an overall accretional trend to erosional trend seems to have occurred between 2017 and 2018. Figure 3.7-3 shows the available historic shoreline position data at the Project site. The 1869 and 1933 shorelines reflect coastal conditions prior to construction of Santa Barbara Harbor and damming of rivers/streams.

[2] Note: similar to the wave runup elevations, these overtopping rates are conservative and reflect extreme coastal conditions.



Figure 3.7-3. Historic Shorelines at Sandyland (Hapke and Ried 2007; USACE 2009; California Coastal Conservancy 2010; USACE 2015; CFC 2024)

Although the historic shoreline trend indicates a relatively stable beach, the beach fronting the revetment is still narrow and does not provide much protection during storm events (i.e. it cannot accommodate seasonal shoreline variation). Historic aerial photographic analysis indicates that the shoreline location fluctuates up to ±150 feet horizontally in a given year, with the most eroded beach conditions occurring in winter months. When the beach is in an eroded condition (such as during the winter months), higher wave runup will occur and the possibility of overtopping is significantly increased. With SLR, the potential for erosion and overtopping will increase even further.

The seasonal changes in beach profile are apparent in cross-sectional beach profile data.

Figure shows beach profiles from various datasets along a shore-perpendicular transect at the center of the beach. These profiles show the variation in beach elevations that may occur from year to year and season to season. All datasets from the Winter and Spring have dashed lines in the figure while datasets taken in the Summer and Fall have solid lines. It is apparent that the beach profiles taken in the Winter and Spring have much lower beach elevations at the toe of the revetment. In the Summer and Fall, the beach becomes much more built out and the seaward slope of the revetment is buried in sand. This seasonal fluctuation in vertical beach elevation at the toe of the revetment can be as great as 10 feet. It is noted that the beach seemed to be in a scoured condition when the most recent survey was taken in March 2024 (CFC 2024 profile).

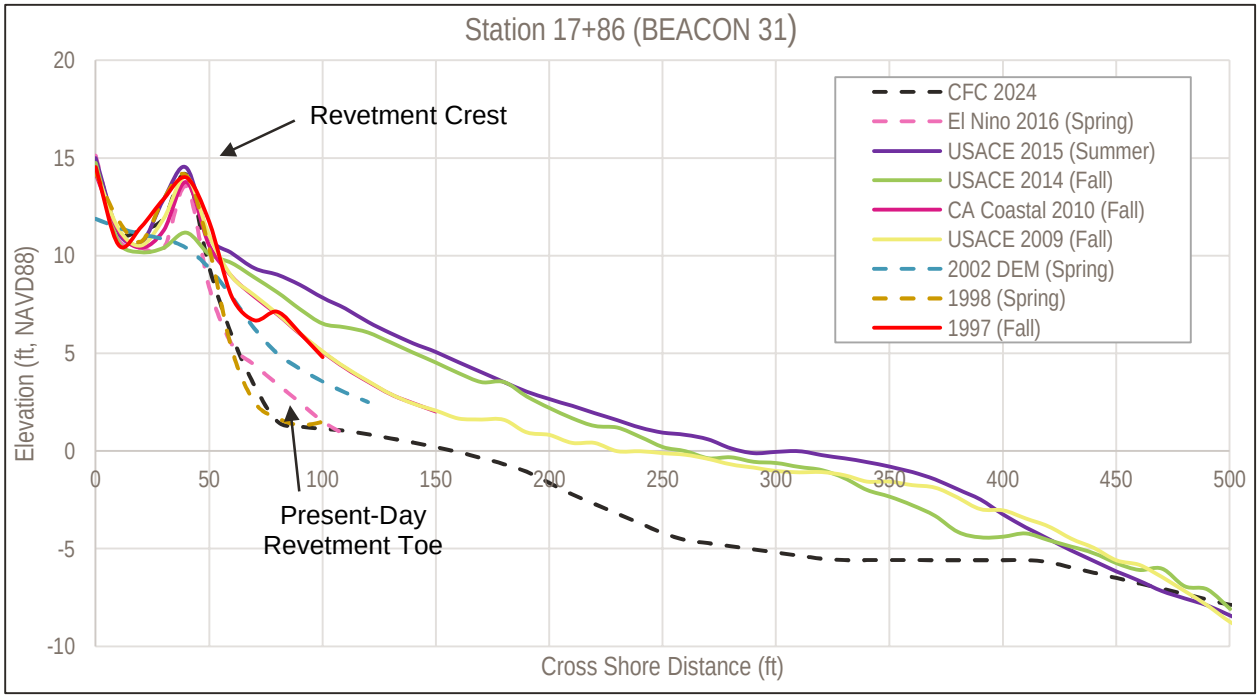


Figure 3.7-4. Beach Profile Data from Publicly Available Elevation Datasets

3.7.3 Regulatory Setting

Federal, State, and local regulations have been enacted to address hydrology, water quality, and coastal processes or hazards in Santa Barbara County. The following section summarizes applicable policies and regulations that may relate directly to the proposed Project and its associated impacts.

3.7.3.1 Federal

Federal Clean Water Act

The CWA was designed to restore and maintain the chemical, physical, and biological integrity of waters in the U.S. The CWA also directs State governments to establish water quality standards for all waters of the U.S. and to review and update such standards on a triennial basis. Other provisions of the CWA related to basin planning include Section 208, which authorizes the preparation of waste treatment management plans, and Section 319, which mandates specific actions for the control of pollution from nonpoint sources.

The U.S. Environmental Protection Agency (USEPA) has delegated responsibility for implementation of portions of the CWA to the SWRCB and the RWQCB, including water quality control planning and control programs such as the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program is a set of permits, designed to implement the CWA, that apply to various activities that generate pollutants with potential to impact water quality.

Section 303 of the CWA requires States to adopt water quality standards for all surface waters of the U.S. Section 304(a) requires the USEPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Section 303(c)(2)(b) of the CWA requires States to adopt numerical water quality standards for toxic pollutants for which the EPA has published water quality criteria and which reasonably could be expected to interfere with designated uses of a water body.

CWA Section 303: Impaired Waters

Under Section 303(d) of the CWA, the SWRCB is required to develop a list of water quality limited segments for jurisdictional waters of the U.S. The RWQCBs are responsible for establishing the list of water quality limited segments and for developing plans, referred to as TMDLs, to improve the water quality of water bodies included on the 303(d) list. The 2024 303(d) List of Water Quality Limited Segments is the most recent 303(d) list and has been partially approved by USEPA (SWRCB 2024). No water bodies from Region 3 where the Project site is located have been contested by the USEPA (USEPA 2024). The list includes pollutants causing impairment to receiving waters or, in some cases, the condition leading to impairment. Alternative pathways to traditional TMDLs may be considered by the RWQCB for pollutants listed on the 303(d) list.

CWA Section 401: Water Quality Certification

Under Section 401 of the CWA, any project requiring a Federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common Federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

CWA Section 404: Permits for Fill Placement in Waters and Wetlands

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or filled material into waters of the U.S. The definition of waters of the U.S. includes wetlands adjacent to national waters. This permitting program is administered by the USACE and is enforced by the USEPA.

Coastal Zone Management Act of 1972

Pursuant to the Coastal Zone Management Act (CZMA), an applicant for a Federal license or permit (e.g., a Section 404 permit) to conduct an activity affecting any land or water use or natural resource of the Coastal Zone, must meet the Federal consistency requirements of Section 307(c)(3)(A) of the CZMA.

National Flood Insurance Program

Congress established National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies. FEMA is also responsible for distributing Flood Insurance Rate Maps (FIRMs) that identify locations of special flood hazard areas, including the 100-year floodplain. Nonresidential development is allowed in the floodplain, but construction activities are restricted within flood hazard areas. Restrictions depend on the potential for flooding in each area. The western portion of the study area adjacent to the Pacific Ocean is in Special Flood Hazard Area Zone VE, and the northeastern portion of the study area is in Zone AE, which are defined as Coastal areas with a 1 percent or greater chance of flooding and an additional hazard associated with storm waves.

3.7.3.2 State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act expands the enforcement authority of the SWRCB and the nine RWQCB to protect water quality and beneficial uses of water. It authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and groundwater) and directs the RWQCB to develop regional basin plans. The Porter-Cologne Act applies to surface waters, wetlands, and ground water. It also applies to point and nonpoint sources of pollution.

Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The CCRWQCB adopts and implements the Water Quality Control Plan for the Basin Plan. It is designed to preserve and enhance the quality of water resources in the Central Coast Region for the benefit of present and future generations. The purpose of the plan is to designate beneficial uses of the region's surface water and groundwater, designate water quality objectives for the reasonable protection of those uses and establish an implementation plan to achieve the objectives.

All projects resulting in discharges, whether to land or water, are subject to Section 3263 of the California Water Code and are required to obtain approval of Waste Discharge Requirements from the RWQCBs. Land and groundwater-related WDRs (i.e., non-NPDES WDRs) regulate discharges of process and wash-down wastewater and privately or publicly treated domestic wastewater. WDRs for discharges to surface waters also serve as NPDES permits.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) requires medium- and high-priority groundwater basins to be sustainably managed by local public agencies through Groundwater Sustainability Plans (GSPs). GSPs must achieve groundwater sustainability within 20 years of

adoption and make sure future groundwater use does not cause undesirable results, including: chronically declining water levels, reduction in groundwater storage, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water. The State has designated five of Santa Barbara County's basins as medium- or high-priority and subject to SGMA: Carpinteria, Montecito, Santa Ynez River Valley, San Antonio Creek Valley, and Cuyama Valley. Two basins occupy the southern half, two basins occupy the western half, and one occupies the northern half of Santa Barbara County. The Carpinteria Valley Water District is the Groundwater Sustainability Agency in charge of implementing the GSP for the Carpinteria Groundwater Basin, where the Project site is located.

National Pollutant Discharge Elimination System Permits

Section 402(p) of the CWA requires the issuance of NPDES permits to regulate nonpoint source stormwater discharges. These regulations are implemented at the regional level by the RWQCBs. Santa Barbara County is within the jurisdiction of the Central Coast Regional Water Quality Control Board.

The State-wide Construction General Permit is an NPDES permit implemented by the SWRCB. Projects that disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2022-0057-DWQ (Construction General Permit). Construction activities subject to this permit include clearing, grading, and excavation. Regular maintenance activities performed to restore the original line, grade, or capacity of the facility are not subject to the permit. Storm Water Pollution Prevention Plans (SWPPPs) designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post-construction runoff are required for permitted projects.

California Coastal Act

The California Coastal Act evolved from the Coastal Conservation Initiative (Proposition 20), which was passed in 1972 and created the CCC. The Coastal Act solidified the CCC as a permanent regulatory body with broad authority to oversee development and conservation efforts in the designated "coastal zone." One of the main goals of the Coastal Act is to "protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources." The Coastal Act encouraged local governments to create Local Coastal Programs (LCPs) and locally manage conservation of coastal resources. The Municipal Waterways Management Plan (MWMP) program area is affected by the Coastal Act provisions, including Article 4, which involves protection of the marine environment including water quality issues, and Article 5, which includes protections for environmentally sensitive habitat.

With respect to water, relevant sections of the Coastal Act (Sections 30250, 30254, and 30412) address development and coordination with the RWQCBs directly. Specifically, RWQCBs have primary responsibility for the coordination and control of water quality, and the CCC may not take actions that are in conflict with determinations of the Water Boards related to water quality or the administration of water rights. However, the CCC and local governments, through their LCPs, otherwise retain their control over development pursuant to the Coastal Act, including by ensuring that development does not harm water quality.

The following Coastal Act sections apply to water quality and coastal processes:

Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Notably, this goal is consistent with the goal of the NPDES Program to improve water quality, including by limiting and monitoring discharges.

Section 30233. Diking, filling or dredging; continued movement of sediment and nutrients

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

(d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

(Amended by: Ch. 673, Stats. 1978; Ch. 43, Stats. 1982; Ch. 1167, Stats. 1982; Ch. 454, Stats. 1983; Ch. 294, Stats. 2006.)

Section 30235. Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.

Section 30253. New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

California Ocean Plan

This Project site discharges to coastal watersheds within 1 mile of the Pacific Ocean, and, as such, the Project is subject to the Water Quality Control Plan for Ocean Waters of California. Goals and policies, beneficial uses, and water quality objectives that apply to the Pacific Ocean are contained in the Ocean Plan. The Ocean Plan also includes implementation provisions for Areas of Special Biological

Significance (ASBS) designated by the SWRCB as requiring special protection of species or biological communities to the extent that maintenance of natural water quality is assured. The Project site is not located near an ASBS (SWRCB 2017).

3.7.3.3 Local

Central Coast Basin Plan

The Basin Plan designates beneficial uses for water bodies in the Central Coast Region (Region 3) and establishes water quality objectives and implementation plans to protect those beneficial uses. These uses of water serve to promote economic, social, and environmental goals. The CCRWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges can affect water quality. These requirements can be either State Waste Discharge Requirements for discharges to land, or federally delegated NPDES permits for discharges to surface water. Methods of treatment are not specified. When such discharges are managed so that: 1) they meet these requirements; 2) water quality objectives are met; and, 3) beneficial uses are protected, water quality is controlled.

The Basin Plan also sets narrative and numerical water quality objectives that must be attained or maintained for the designated beneficial uses. Under Section 303(d) of the CWA, the SWRCB is required to evaluate all available water-quality-related data and information to develop a list of waters that do not meet established water quality standards (i.e., beneficial uses, water quality criteria, or objectives to protect the beneficial uses, and State and Federal anti-degradation policies). These waters are known as impaired waters.

Water quality impairments are addressed with the implementation of TMDLs, which is a regulatory term under CWA Section 303(d), describing a plan for restoring impaired waters. A TMDL identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. A TMDL may affect a single water body and pollutant, or a combination of multiple water bodies and pollutants.

The CCRWQCB has established the following goals for the utilization of the basin's water resources and guidelines to control waste discharges:

- Protect and enhance all basin waters, surface and underground, fresh and saline, for present and anticipated beneficial uses, including aquatic environmental values.
- The quality of all surface waters shall allow unrestricted recreational use.
- Manage municipal and industrial wastewater disposal as part of an integrated system of freshwater supplies to achieve maximum benefit of freshwater resources for present and future beneficial uses and to achieve harmony with the natural environment.
- Achieve maximum effective use of freshwaters through reclamation and recycling.
- Continually improve waste treatment systems and processes to assure consistent high quality effluent based on best economically achievable technology.
- Reduce and prevent accelerated (man-caused) erosion to the level necessary to restore and protect beneficial uses of receiving waters now significantly impaired or threatened with impairment by sediment.

County of Santa Barbara Storm Water Management Program

The County prepared a Storm Water Management Program (SWMP) pursuant to State Water Resources Control Board Water Quality Order No. 2003-005-DWQ NPDES General Permit No. CAS0000004 Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit). The General Permit requires the County to apply Construction Site Runoff Control Minimum Control Measures (established by the USEPA) to all construction sites that are 1 acre or more. The following are the minimum control measures for construction sites:

- Ordinance or other regulatory mechanism as well as sanctions to ensure compliance;
- Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMPs);
- Requirements for construction site operators to control construction-related wastes such as sediment, plaster, cement, paint, fuel, etc.;
- Procedures for site plan review that incorporate consideration of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and
- Procedures for site inspection and enforcement of control measures.

County of Santa Barbara Coastal Land Use Plan

As previously described the Coastal Act encourages local governments develop LCPs that can carry out policies of the Coastal Act at the local level. LCPs are land use planning documents that lay out a framework for development and coastal resource protection within a city or county's coastal zone area. They are prepared by the local jurisdiction and submitted to the CCC for certification. Each LCP includes a Land Use Plan (LUP) which contains policies, and an Implementation Plan (IP) which includes accompanying measures to implement the plan (such as zoning ordinances, zoning district maps, and other implementing actions). LCPs specify the appropriate kinds, location, and intensity of uses of land and water in the coastal zone portion of a local government's jurisdiction (CCC 2025).

The County developed a CLUP that was originally adopted by the Board of Supervisors in 1980. The CLUP was partially certified by the CCC in 1981 (republished in 2019). The issues that were refused certification include two urban/rural boundaries and Policies 8-9 that pertain to clustered residential development on the islands. Neither of these issues pertains to the proposed Project (County of Santa Barbara 2019). The CLUP takes precedence if a conflict arises between the County's Comprehensive Plan and CLUP. The following CLUP policies apply to water quality and seawall structures:

> Policy 3-1: Seawalls shall not be permitted unless the County has determined that there are no other less environmentally damaging alternatives reasonably available for protection of existing principal structures. The County prefers and encourages non-structural solutions to shoreline erosion problems, including beach replenishment, removal of endangered structures and prevention of land divisions on shorefront property subject to erosion; and, will seek solutions to shoreline hazards on a larger geographic basis than a single lot circumstance. Where permitted, seawall design and construction shall respect to the degree possible natural landforms. Adequate provision for lateral beach access shall be made and the project shall be designed to minimize visual impacts by the use of appropriate colors and materials.

Policy 3-2: Revetments, groins, cliff retaining walls, pipelines and outfalls, and other such construction that may alter natural shoreline processes shall be permitted when designed to eliminate or mitigate adverse impacts on local shoreline sand supply and so as not to block lateral beach access.

Policy 3-3: To avoid the need for future protective devices that could impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers, or where such restriction would cause the inverse condemnation of the parcel by the County.

Policy 3-12: Permitted development shall not cause or contribute to flood hazards or lead to expenditure of public funds for flood control works, i.e., dams, stream channelization, etc.

Policy 3-14: All development shall be designed to fit the site topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading and other site preparation is kept to an absolute minimum. Natural features, landforms, and native vegetation, such as trees, shall be preserved to the maximum extent feasible. Areas of the site which are not suited for development because of known soil, geologic, flood, erosion or other hazards shall remain in open space.

Policy 3-18: Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accommodate increased runoff resulting from modified soil and surface conditions as a result of development. Water runoff shall be retained on-site whenever possible to facilitate groundwater recharge.

Policy 3-19: Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste, shall not be discharged into or alongside coastal streams or wetlands either during or after construction.

Santa Barbara County Comprehensive Plan

State law (California Government Code, Section 65300) requires that all cities develop and adopt a comprehensive, long-term general plan that identifies existing and potential issues, as well as guidance for sustainable development of the county or city. The General Plan must cover the local jurisdiction's entire planning area and factor in current and projected future growth and development. As per California law, the County has developed a comprehensive plan that includes land use, conservation, and open space elements. The Land Use Element of the Comprehensive Plan includes policies to protect water quality and address development in flood hazard areas.

Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

The County, in coordination with each of its eight incorporated cities and six special districts, developed a Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) to comprehensively identify, evaluate, and mitigate the known hazards that may impact Santa Barbara County. The primary purpose of the MJHMP Update is to reduce or eliminate long-term risk to people and property from natural hazards and their effects on Santa Barbara County. It is used by local emergency management teams, decision-makers, and agency staff to implement mitigation to address known hazards. A Hazard Mitigation Plan was originally developed in 2006, updated in 2011 and 2017, and has undergone a comprehensive update for 2022. These updates occur every five years, consistent with

FEMA requirements. The 2022 update complies with FEMA guidance and California Office of Emergency Services guidelines for Local Hazard Mitigation Plans.

The following mitigation for coastal development is relevant to the proposed Project:

> The County shall continue to require that all new construction or reconstruction, including accessory dwelling units (ADUs), increased residential densities allowed under State law, additions, and major renovations, on coastal or blufftop properties avoid coastal hazards, including erosion and wave runup. This action can include planning and ordinances that address the following:
>
> 1. A coastal hazard study shall be prepared and submitted to the County as a part of the project application to determine the necessary construction design and technique to protect the structure and prevent impacts to adjacent property from wave runup, coastal flooding, and coastal erosion with consideration of sea level rise.
> 2. New construction, including reconstruction where more than 50 percent of the exterior walls are removed, shall be located outside of setbacks required to protect the structure from erosion and/or wave attack for 75 years, including the effects of sea level rise, and/or required to be located landward of existing the existing primary residence.
> 3. New developments must not contribute to increases in bluff erosion, by either directing all runoff away from the bluff face or using appropriate conveyance to channel runoff to the beach at the base of the bluff.
> 4. Erosion control elements must be included in all shoreline development or redevelopment, including the use of drought-tolerant, preferably native coastal bluff scrub vegetation landscaping to help stabilize the blufftop and bluff face.

3.7.4 Environmental Impact Analysis

This section discusses the potential hydrology, water quality, and coastal processes impacts associated with the proposed Project. Where there are potentially significant impacts, mitigation measures are proposed and the residual impact after mitigation is determined.

3.7.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this Environmental Impact Report (EIR), implementation of the proposed Project may have a significant adverse impact on hydrology and water quality if it would:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

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

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

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

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

   iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

   iv) impede or redirect flood flows.

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

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

Appendix G of the CEQA Guidelines does not identify any thresholds specific to coastal erosion; however, the Geology and Soils section of CEQA Guidelines Appendix G generally address issues of erosion. For the purposes of this EIR, the proposed Project is considered have a potentially significant impact if it would result in substantial coastal erosion.

Santa Barbara County Thresholds

The following guidelines, taken from the County's *Environmental Thresholds and Guidelines Manual*, have been designated by the County to be used in conjunction with CEQA thresholds for the analysis of project-related impacts on surface and stormwater quality. The assessment of impacts must account for construction-related impacts (i.e., vegetation removal, erosion, use of construction materials on the site, and staging of construction activities) and post-construction (or post-development) impacts (i.e., increases in impervious surfaces and increased runoff, entrainment of pollutants, and effects of discharges on aquatic habitats and biota). A significant water quality impact is presumed to occur if the project:

a) Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;

b) Increases the amount of impervious surfaces on a site by 25 percent or more;

c) Results in channelization or relocation of a natural drainage channel;

d) Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks, or wetlands;

e) Is an industrial facility that falls under one or more categories of industrial activity regulated under the NPDES Phase I industrial stormwater regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);

f) Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the RWQCB's Basin Plan, or otherwise impairs the beneficial uses of a receiving water body;

g) Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or

h) Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

The County's adopted *Environmental Thresholds and Guidelines Manual* does not indicate specific thresholds of significance for impacts to coastal processes. However, based on policy guidance provided in the Coastal Act and County's CLUP, which balance maintenance of natural coastal processes with protection of development and coastal-dependent uses and suggested findings in CEQA Appendix G related to geology, hazards and hydrology, impacts to coastal processes were determined to be significant if the proposed Project would:

- Cause erosion downcoast of the Project site that substantially exceeds the known existing rate or trend;
- Result in substantially increased or decreased rates of beach erosion;
- Cause more frequent closure of the Carpinteria Salt Marsh mouth, or extend the duration of closure;
- Substantially change surf characteristics;
- Expose existing development, such as coastal-dependent or coastal-related uses, to substantial risk of loss, damage or destruction from coastal processes; or
- Substantially Inhibit natural coastal processes.

Non-Applicable Thresholds/Insignificant Impacts

The proposed Project would repair an existing revetment that has been in place for 42 years, through the addition of new armored rock to fill voids, correction of low points and reduction in widths of the revetment crest, and addressing areas where existing armor has been dislodged. It would also include the addition of native plants, along with the removal of nonnative plants, in the swale area on the landside of the revetment. As discussed in Chapter 2, *Project Description,* the County and/or its construction contractor would implement various construction BMPs that would avoid or minimize impacts to water quality. With the implementation of construction BMPs, the initial repair, long-term maintenance, and ongoing existence of the revetment is not anticipated to have significant impacts to the following issue areas:

Groundwater: The Project site is surrounded by water bodies, including the Pacific Ocean and Carpinteria Salt Marsh. It is also located within the Carpinteria Groundwater Basin. Carpinteria Salt Marsh and Franklin Creek that feeds into it are impaired water bodies. The primary contaminants of concern in these waters are nutrients, dissolved oxygen, salinity, toxicity, and pH. There are no inputs or outputs from the Project that would exacerbate these water quality concerns. Construction activities would include the implementation of avoidance measures and BMPs in compliance with the Construction General Permit and the County's Stormwater Management Plan to protect local water

bodies. With the implementation of these measures the proposed Project would have no potential impacts on groundwater.

Flooding: The proposed Project would repair and maintain the existing revetment and would continue to protect the Sandyland residences and the Carpinteria Salt Marsh from flooding from the Pacific Ocean. The proposed Project would not increase the risk or exacerbate the impacts of flooding.

Substantially change surf characteristics: There would be no change to the design and footprint of the structure (e.g., length, angle, composition) from the existing structure that has been in place for 42 years. The implementation of the proposed Project would not change surf characteristics.

Substantially inhibit natural coastal processes: The existing revetment has been in place for 42 years. The structure has not significantly inhibited natural coastal processes (i.e., erosion and deposition of sediment, surf characteristics, currents, etc.). The proposed Project would not significantly inhibit natural coastal processes. As discussed in the Moffatt & Nichol (2025a) assessment, the existing revetment has not significantly affected erosional trends along the fronting beach or upcoast and downcoast beaches.

- The existing revetment does not significantly alter the sand supply to downcoast beaches, due to the fact that the area behind the revetment is not underlain by eroding bluffs or a significant volume of sand. Sandyland sits atop a low-lying spit fronting the Carpinteria Salt Marsh, which would not contribute a substantial amount of sediment to the littoral system.
- Passive erosion is not currently a significant issue due to the historically stable shoreline, and under future SLR scenarios, impacts would likely be comparable regardless of whether the revetment and/or existing infrastructure remain in place.
- Research indicates that shoreline protection structures do not cause seasonal or long-term effects on fronting beach widths and profiles on California beaches (Griggs et al. 1994; Griggs et al. 2009; Kraus and McDougal 1996).
- Active erosion mechanisms (e.g., end effects) are not anticipated to affect upcoast or downcoast beaches, as the upcoast (north) end is contiguous with the existing Casa Blanca revetment and the downcoast (south) end is the marsh tidal inlet (which is stabilized by the presence of the existing revetment).
- Historic aerial imagery and records indicate that the average shoreline position shifted seaward by approximately 80 feet from approximately 1984 to 2017, which would have been after construction of both the 1964 and 1983 revetment sections. This indicates that the beach was in an accretional (i.e., not erosional) condition following construction of the revetment.
- Downcoast beaches were also unaffected by the construction of the existing revetment based on a visual assessment of the historic aerial photographs, before and after construction of the revetment.

Methodology

Water Quality

Potential impacts on surface water quality and hydrology were assessed to determine:

- Water quality impacts through ground disturbance, vegetation clearing, erosion, and sedimentation;
- The potential for erosion and siltation due to stormwater runoff during construction; and
- Compliance with the Water Quality Control Plan for the Central Coastal Region under the CCRWQCB.

Moffatt & Nichol conducted a Water Quality Analysis (2025b; see Appendix H) to identify existing regulations and water quality conditions in surrounding water bodies (i.e., Carpinteria Salt Marsh, Pacific Ocean, Franklin Creek, Santa Monica Creek, Arroyo Paredon Creek, and Carpinteria Groundwater Basin) and to analyze the potential impacts of the proposed Project. The analysis was conducted by reviewing a variety of documents and resources from State and Federal agencies, the County of Santa Barbara, and technical experts. Resources reviewed for the analysis include:

- The Basin Plan and TMDLs for the CCRWQCB;
- CWA Section 303(d) list of impaired waters (SWRCB 2024 Integrated Report);
- FEMA flood maps and County Land Use Plans; and
- A technical analysis by Moffatt & Nichol (2025a) on coastal hazards and processes for the proposed Project.

Coastal Processes

Potential impacts on coastal processes, including shoreline erosion, coastal flooding, and other SLR induced hazards, were analyzed to determine if the proposed Project would:

- Expose existing coastal infrastructure to damage or destruction due to increased coastal flooding and wave impact;
- Cause significant changes in erosional trends to the beach fronting the project or any downcoast beaches;
- Result in a loss of beach area or reduction of lateral and vertical beach access.

To understand the proposed Project's effect on coastal flooding, wave runup elevations and overtopping rates were calculated for extreme present day and future sea level rise conditions. Wave runup elevations were calculated following the FEMA framework for wave runup (FEMA 2021) using the appropriate runup equation (van der Meer 2002) for the revetment design. These runup elevations were compared to the previous wave uprush study completed at this site (Moffatt & Nichol 2006) by using the wave runup methodology from the Shore Protection Manual (USACE 1984) and to FEMA flood mapping for present day sea levels. A similar approach for overtopping calculations was taken by employing three different methodologies for comparison: Ward (1992), van der Meer (2002), and the EurOtop Manual (2018). These wave runup and overtopping analysis methods utilize the cross-sectional elevation and material characteristics for the design of the proposed Project, which is generally the same as the existing conditions. Thus, the wave runup and overtopping results for the proposed Project are generally equivalent to the results for the existing condition.

The proposed Project design (design crest elevation) provides adequate protection for current sea level and remains resilient to SLR for at least 0.6 feet of future SLR. In order to design the proposed Project to be resilient to increased magnitudes of SLR; however, the crest elevation of the revetment would need to be increased. For each SLR value, an iterative process was used to determine the

revetment crest elevation required in order to maintain an overtopping discharge rate of less than 2.0 cfs/ft, the critical overtopping threshold from the USACE Coastal Engineering Manual.

Potential erosional impacts caused by the proposed Project, to both the beach fronting the revetment and downcoast beaches, were assessed by Moffatt & Nichol (2025a; see Appendix I) based on studies which define coastal armoring impacts on the California coast (Griggs et al. 2009; Griggs et al. 1994; and Kraus and McDougal 1996) and by review of historic aerial photographs. Erosional impacts were categorized into three main categories: the impoundment or loss of sand supply, passive erosion, and active erosion. Existing topographic and geologic data was used to understand the potential for the proposed Project to impound sediment and cause a significant change in the sediment supply to the littoral cell. Historic shoreline data was assessed to understand the existing erosion trends of the shoreline fronting the Project site. These erosional trends were compared to projected future shoreline positions for different magnitudes of SLR to understand how the proposed Project may affect passive erosion of the shoreline. A qualitative assessment of active erosion impacts was completed to understand erosional mechanisms such as "end effects" and toe scour due to wave reflection. Because the proposed Project does not significantly change the footprint or cross section of the existing shoreline protection structure, historical trends were deemed sufficient to show the impacts of the proposed Project due to active erosion.

3.7.4.2 Project Impacts

Table 3.7-7 provides a summary of the proposed Project's impacts related to hydrology, water quality, and coastal processes. A detailed discussion of each impact follows.

Table 3.7-7. Summary of Potential Impacts

Hydrology, Water Quality, and Coastal Processes Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact HYD-1. Construction activities associated with the proposed Project may temporarily increase turbidity in the Pacific Ocean.	Insignificant	No mitigation required	Insignificant
Impact HYD-2. The proposed Project would potentially contribute to erosion downcoast of the Project site that substantially exceeds the known existing rate or trend.	Insignificant	No mitigation required	Insignificant
Impact HYD-3. The proposed Project would potentially result in substantially increased or decreased rates of erosion on the beach in front of the revetment at the Project site.	No Impact / Beneficial	No mitigation required	No Impact / Beneficial
Impact HYD-4. The proposed Project would reduce the exposure of existing development, such as coastal-dependent or coastal-related uses, to substantial risk of loss, damage or destruction from coastal processes	Beneficial	No mitigation required	Beneficial
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact HYD-1. Construction activities associated with the proposed Project may temporarily increase turbidity in the Pacific Ocean.

During construction activities, a trench would be excavated along the beach at the base (toe) of the revetment to allow for the removal and replacement of armor rocks at the base of the structure. Sand excavation activities would only occur along the segment where construction is occurring. Construction is anticipated to cover approximately 30 linear feet at a time; therefore, the excavated area at any given time would be limited to an approximately 30-foot-long by 30-foot-wide section (approximately 10 feet deep). As described in Section 2.3.3, *Project Construction*, construction activities on the seaward side of the revetment would take place during low tide to limit the potential for construction equipment to come into contact with ocean water. However, given the narrow beach fronting the revetment, this BMP would not guarantee that ocean water would not enter the Project site. In the event that the tides come in before the trenches have been backfilled, ocean water may enter the trenches. This action could temporarily increase suspended solids, resulting in turbidity impacts to the Pacific Ocean adjacent to the proposed Project.

In addition to compliance with the Construction General Permit and County Storm Water Management Program that require the implementation of erosion control measures, the following construction BMPs would be implemented as a part of the proposed Project :

- The contractor and/or construction crews would monitor the tides and construction work below the MHHW line would be minimized to the maximum extent practicable.
- Work would not occur during storm wave conditions with the potential to impact construction operations.
- Erosion and sediment controls implemented in compliance with the Construction General Permit and County Storm Water Management Program would be inspected daily to assess and maintain the integrity and effectiveness. Corrective actions and repairs would be carried out immediately for ineffective BMPs.

In the event that the ocean water does enter the Project site, the increased surface area created by the excavation could result in a temporary increase in turbidity in the Pacific Ocean directly adjacent to the site. However, the sand on the beach is a medium grain size (0.29 millimeters [mm] – 0.36 mm) (USACE 2024) that would not remain suspended long enough to result in water quality impacts. The potential increase in the amount of sand from potential tidal activity in the excavated areas relative the amount of sand entering the ocean due to natural tidal action at the Project site would not be significant. Thus, the potential impacts to turbidity in the adjacent Pacific Ocean as a result of construction for the project would be *insignificant.*

Impact HYD-2. The proposed Project would potentially contribute to erosion downcoast of the Project site that substantially exceeds the known existing rate or trend.

Because shoreline protection structures are constructed in locations where shoreline erosion is already occurring, a connection has often been made between the two (i.e., protective structures and erosion). A 2009 journal article by Dr. Gary Griggs titled *The Effects of Armoring Shorelines—The California Experience* (Griggs, 2009), identifies three categories of potential erosional impacts which can result from the installation of coastal armoring structures:

- Impoundment or loss of sand supply;

- Passive erosion; and
- Active erosion.

These three types of erosion have the potential to affect downcoast beaches.

Impoundment impacts of coastal armoring include the prevention of sand supply to nourish the alongshore littoral cell from upland contributions. Natural bluff or cliff erosion along a shoreline supplies new sediment to the beach; placement of an armoring structure impounds this natural sediment source and prevents it from reaching the beaches. Although impoundment is primarily an issue for bluff-backed beaches, it can apply to other types of shorelines. The existing revetment sits atop a relatively low lying spit of land between the open ocean and salt marsh area. The spit is likely comprised of sandy beach-compatible sediment that could potentially supply the surrounding beaches with sediment; therefore, the revetment does cause some impoundment. However, the volume of sandy material that the revetment specifically impounds is relatively insignificant when the scale of the littoral cell is considered and as compared to the relatively significant amounts of sand which can be provided by large coastal bluffs.

A potentially positive impoundment effect is at the southern portion of the revetment adjacent to the marsh tidal inlet. The revetment effectively fixes the position of the northern bank of the inlet and restricts erosion of the inlet and sediment infilling within the marsh area. The effects of this impoundment are uncertain but are likely localized to the inlet of the marsh. Without this inlet stabilization, increased sediment could migrate into the inlet and cause the inlet to close. This could result in flooding during high rainfall events, a decrease in water quality in the marsh, and the need for maintenance dredging.

Passive erosion refers to long-term erosional tendencies that were in place prior to the construction of a shoreline protection structure. As the eroding shoreface profile naturally migrates landward, it is unable to retreat past the structure, resulting in deeper water and loss of beach fronting the shoreline protection structure. However, the shoreline at the Project site has been relatively stable according to historic shoreline data trends and therefore significant passive erosion at the revetment during present day conditions is not expected. Under extreme future SLR conditions, the beach fronting the revetment may naturally recede, which would eventually be halted by the revetment and cause passive erosion impacts. However, under this scenario, revetment removal would necessitate removal of all protected infrastructure, and impose a significant negative impact of allowing the beach to naturally recede into the existing salt marsh area. Passive erosion would result in adjacent unarmored shorelines to continue to migrate landward; in the case of the Project site and the surrounding, the contiguous armored shoreline (e.g., the Casa Blanca revetment to the north) would remain fixed, regardless of if the revetment fronting the Project site is in place or not.

Active erosion is the potential for an armoring structure to induce or accelerate erosion. One mechanism of active erosion is by waves diffracting around the edges of the structure during times of elevated water levels causing accelerated erosion at the ends of the structure, called “end effects.” This generally occurs along seawalls that terminate in the middle of a continuous beach. The Sandyland revetment backs the entire beach and is contiguous with the Casa Blanca rock revetment to the north and ends at the marsh tidal inlet to the south. So, end effects would not be a concern for the adjacent beaches to the north or south.

Another mechanism of active erosion is caused by wave reflection leading to the steepening of the foreshore beach profile and scour at the revetment toe. Early coastal engineering understanding was

such that both permeable and impermeable coastal protection structures led to active erosion. More recent studies, however, have shown that shoreline protection structures are not a significant contributor to changes in fronting beach profile regardless of if they are permeable or impermeable (Kraus and McDougal 1996; Griggs et al. 1994). Griggs et al. (1994) found that when comparing seven years of seasonal beach monitoring data at a beach in Monterey Bay, California with both naturally and armored sections, there was no significant differences in the beach profile and shape along the armored structures and that summer beach widths were able to fully recover following winter storm events. One key finding was that the beach berm fronting the armored sections of the shoreline was eroded back more quickly in the wintertime but once an equilibrium winter profile was obtained, there were no difference with that of the natural beach. Beach scouring along the structure's toe was never observed despite instances of high water levels and waves during the study period.

Figure 3.7-5 and Figure 3.7-6 show a July 1961 aerial photograph (prior to construction of the Sandyland revetment and after construction of Santa Barbara Harbor), in comparison to a July 2023 aerial photo (following construction of the revetment) for the downcoast beaches. As can be seen in this comparison, with the exception of the area immediately adjacent to the tidal inlet where rock stabilization has been placed on both sides of the inlet, the 2023 downcoast beach width is relatively similar to the 1961 conditions. Review of other recent aerial photographs show similar beach conditions.

In summary, this assessment indicates that the existing revetment has not significantly affected erosional trends along the fronting beach or upcoast and downcoast beaches. Downcoast erosion impacts to adjacent beaches would be *insignificant*.



Figure 3.7-5. Pre-Construction (July 1961) Aerial Photo of Downcoast Beaches



Figure 3.7-6. Post-Construction (July 2023) Aerial Photo of Downcoast Beaches

Impact HYD-3. The proposed Project would potentially result in substantially increased or decreased rates of erosion on the beach in front of the revetment at the Project site.

In order to understand the potential impacts of the revetment, beach width trends were reviewed for the time periods before and after the construction of the revetment. Although there is no historic beach profile data available for the beach pre-construction of the revetment, historic aerials are available during this time period to give a visual representation of beach width. Other regional factors that may have affected the beach width must also be considered. These include drought years, major El Niño events, and the construction of any upcoast structure that may impede natural sediment supply. The most significant event that likely affected beach widths before the implementation of the 1964 revetment was the construction of Santa Barbara Harbor in 1929. Therefore, historic aerials taken following construction of the harbor were examined to establish an understanding of pre-construction beach width that were outside the period of initial erosional influence of the harbor.

Figure shows historic aerial photographs dating from 1947 to 1962 (prior to construction of the revetment and after construction of Santa Barbara Harbor). The photos show that a significantly wider beach did not exist before the revetment was installed (with the exception of the time period prior to the construction of Santa Barbara Harbor), indicating that the revetment has not had a significant impact on active erosion at the site. Further, records indicate that the average shoreline position shifted seaward by approximately 80 feet from approximately 1984 to 2017, which would have been after construction of both the 1964 and 1983 revetment sections. The beach was in an accretional (i.e., not erosional) condition following construction of the revetment.

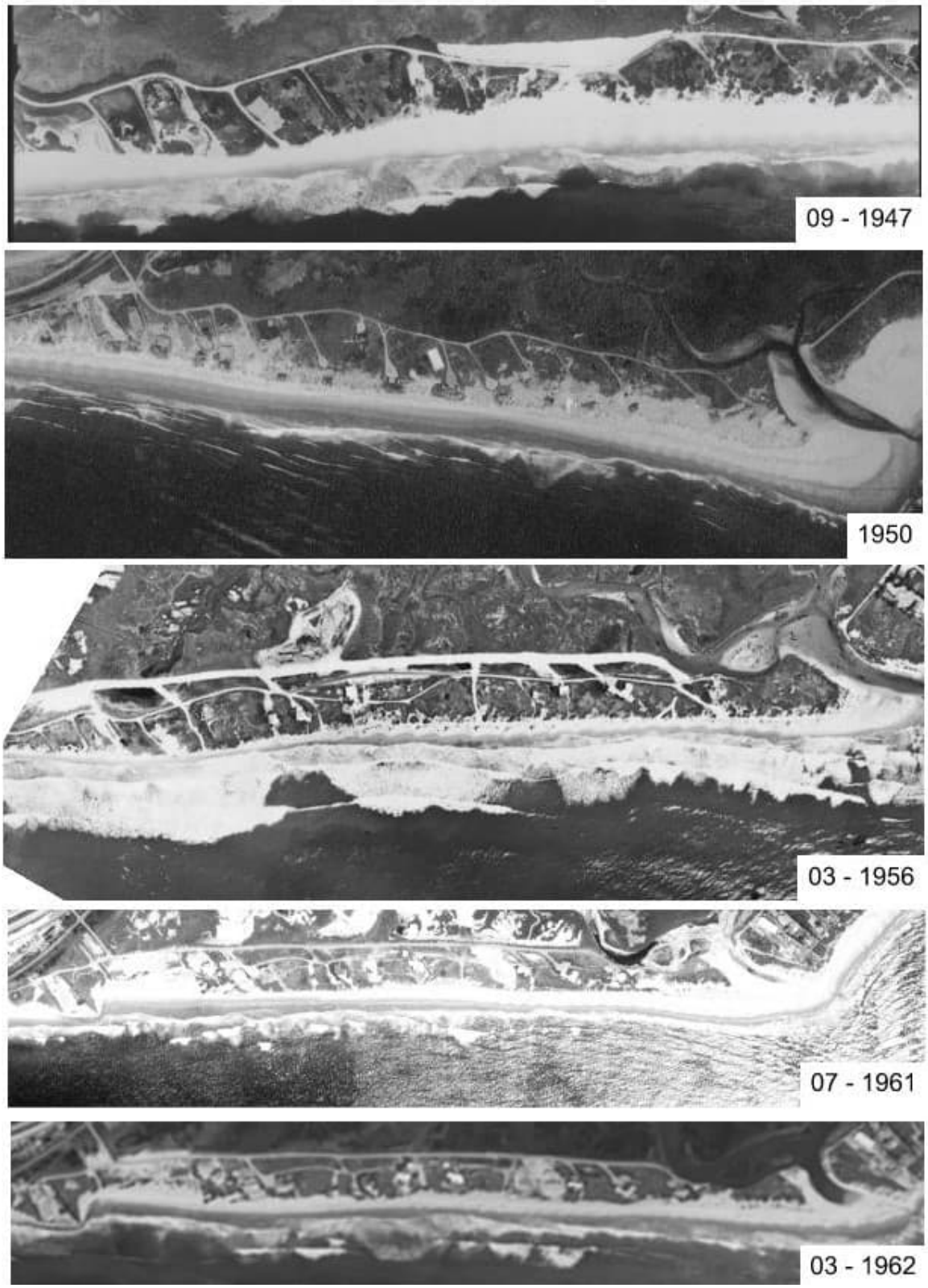


Figure 3.7-7. Pre-Construction Aerial Photos of Sandyland

The beach width fronting the revetment will continue to vary seasonally. As previously discussed, studies (Kraus and McDougal 1996; Griggs et al. 1994) found there was no significant differences in the beach profile and shape along armored structures and summer beach widths are able to fully recover following winter storm events. Beach profile data and historic aerial photographs indicate this is the case at the Project site.

With SLR, the beach is expected to retreat significantly. The revetment would eventually halt this retreat under extreme future SLR conditions. Under this scenario, revetment removal would necessitate removal of all protected infrastructure, and impose a significant negative impact of allowing the beach to naturally recede into the existing marsh.

The beach in front of the revetment has been relatively stable, even slightly accretional, since the 1983 revetment was installed (and even within the lifetime of the original 1964 revetment). The proposed Project would repair and restore the current (1983) revetment design. There are no design changes proposed that would change the rate of shoreline erosion. There would be *no impact* to the rates of erosion on the beach in front of the revetment as a result of implementing the Project. However, in the event that the beach does transition to an erosive state (retreat) due to future SLR, the revetment would provide a *beneficial impact* by preventing loss of property and the backland Carpinteria Salt Marsh.

Impact HYD-4. The proposed Project would reduce the exposure of existing development, such as coastal-dependent or coastal-related uses, to substantial risk of loss, damage or destruction from coastal processes.

The revetment provides protection for 25 residences from coastal flooding and wave inundation during storm events. It also provides flood protection to the backland Carpinteria Salt Marsh. As SLR becomes reality, the risk and severity of impact to the adjacent homes from storm events would increase. Moffatt and Nichol (2025) converted SLR increments provided in the CoSMoS tool to the closest SLR value provided by the 2024 OPC *Sea Level Rise Guidance* to determine the risk scenario for different SLR levels, which are shown in Table 3.7-8.

Table 3.7-8. CoSMoS SLR Increments and the Closest Analyzed SLR Scenario

CoSMoS Sea Level Rise Increment	Closest OPC Sea Level Rise Value (for Santa Barbara Tide Gauge)	Related OPC Sea Level Rise Scenario
+0.8 ft (+0.25 m)	+0.6 ft	Intermediate 2050 Condition
+1.6 ft (+0.5 m)	+1.6 ft	Intermediate 2080 Condition
+3.3 ft (+1.0 m)	+2.8 ft	Intermediate 2100 Condition
+4.9 ft (+1.5 m)	+4.5 ft	Intermediate-High 2100 Condition

Moffatt and Nichol (2025) analyzed potential flood hazards due to still water (tidal) flooding, coastal storm, and wave runup/overtopping for the SLR levels listed in Table 3.7-8 for the current and proposed revetment designs. As noted previously, flooding along the marsh edge of is beyond the scope of the proposed Project, but is included herein for completeness. The analysis results were as follows.

Still Water (Tidal) Flooding: The lowest existing points along the crest are approximately +14 feet NAVD. This is above the 100-year extreme water level for the present-day conditions and for

up to +4.5 feet of future SLR. Thus, tidal still water flooding over the revetment is not likely to occur.

Although tidal flooding is not projected to be an issue along the seaward side of the Project site, the extreme still water levels analyzed would cause flooding from the Carpinteria Marsh landward side over Sand Point Road.

Coastal Storm Flooding: The CoSMoS coastal storm flooding analysis considered tides, sea level anomalies such as El Niño, storm surge, wave setup (but not wave runup), SLR and future shoreline changes. The intermittent flooding associated with wave runup and overtopping was not included.

CoSMoS shows no overtopping of the existing revetment for present day conditions, even with a 100-year storm. However, a present-day 1-year water level (king tide) inundates the majority of the marsh backing Sand Point Road. With 100-year storm water levels, a low point in the northern section of the Sand Point Road is breached and the roadside portion of several houses becomes flooded.

With up to +1.6 feet of SLR, there is still no overtopping of the existing revetment, however, flooding from the backland area worsens for the 100-year storm. Sand Point Road is breached along the southern portion of the road and the roadside edges of many of the properties become flooded.

With +3.3 feet of SLR, the backland area would regularly flood (during mean high water) over Sand Point Road and into the majority of the Sandyland properties. The 100-year storm would overtop the existing revetment and begin to fill the swale area behind the revetment crest. With +4.9 feet of SLR, the revetment would regularly be overtopped during mean high water and almost all of the land Sandyland properties would be inundated.

Wave Runup and Overtopping Flooding: Wave runup along the Sandyland revetment was evaluated for depth-limited breaking wave heights calculated using a highly scoured beach condition, a 100-year water level elevation, and a wave period of 18 seconds. The runup estimates were based on two different methods: the USACE Shore Protection Manual method and FEMA's TAW method. The 100-year wave runup is projected to reach approximately 24 feet NAVD and thus overtop the existing revetment. As SLR increases, wave runup elevations increase significantly.

Overtopping occurs when wave runup elevations are greater than the existing crest elevation of the revetment. Overtopping is projected to occur for all sea level scenarios analyzed, including present-day. The acceptable level of overtopping used for the existing revetment is 2.0 cfs/ft given the existence of the swale/splash wall. Present-day overtopping rates are projected to be 0.9 cfs/ft (i.e. within an acceptable threshold). However, with +1.6 feet or more of future SLR, the projected overtopping rates exceed the threshold.

SLR: The proposed Project site and rock revetment are susceptible to future SLR hazards, including more frequent events of wave runup and overtopping, and flooding. Depending on the extent of future SLR, the proposed Project is designed to allow for the import and placement of up to 41,000 tons of additional rock to raise the crest elevation to up to 22 feet (relative to NAVD88 vertical datum) to accommodate SLR of up to 2.8 feet. Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessways, and dune habitat occurring more than once per year.

In addition to the repair activities, the proposed Project includes improvements to existing coastal dune habitat. The habitat provides an area to retain and percolate wave overtopping seawater. To support new dune vegetation and establish dune habitat, up to 3,000 cubic yards (cy) of sand would be imported and distributed along the extent of the swale. The addition of imported sand would be strategically placed only where needed to establish native dune vegetation and in locations which do not affect water overtopping capacity. These improvements would retain the protective function of the dune habitat.

The analysis demonstrates that the revetment does protect the Sandyland residences from coastal flooding and inundation from the Pacific Ocean. With the exception of intermittent flooding from wave overtopping, the structure could continue to protect the community for the next 55 years (to 2080 based on the "Intermediate" risk aversion scenario and up to 1.6 feet SLR) if it is restored and maintained to keep its design section and ensure the integrity of the structure. It is likely that the design of the structure would need to be revisited to accommodate higher SLR scenarios that are projected to occur in 75 years. Based on available information about SLR, the proposed Project would provide a *beneficial impact* in the form of protection from substantial risk of loss, damage or destruction from coastal processes to the Sandyland community and backland Carpinteria Salt Marsh.

3.7.4.3 Cumulative Impacts

Coastal processes affected by the Santa Barbara Littoral Cell have been significantly altered by a number of projects, including dams built in the early-to-mid 1900s and the Santa Barbara Harbor (circa ~1930s). Inland construction of debris basins and the channelization of creeks have also significantly diminished natural sediment flow to the beaches. Data show that the beach in front of the existing revetment have been relatively stable since the installation of the revetment. Further, the revetment does not significantly alter the sand supply to downcoast beaches. Pending and planned projects (as of May 2025) in the South Coast region of Santa Barbara County are primarily inland and upcoast from the Project site. The Santa Claus Lane improvement projects (County of Santa Barbara 2019) are anticipated to be completed in 2027, before the proposed Project starts construction in early 2028. They would not create conditions that would result in a cumulatively substantial adverse impact as a result of implementing the proposed Project. There would be no cumulative impacts to water quality or coastal processes as a result of the proposed Project.

3.7.4.4 Proposed Mitigation

No mitigation measures are required.

3.7.4.5 Residual Impacts

Implementation of the proposed Project would provide continued protection from flooding and inundation from the Pacific Ocean. This residual impact would be beneficial in minimizing the exposure of the adjacent community and Carpinteria Salt Marsh to substantial risk of loss, damage or destruction from coastal processes.

Impact HYD-1. The potential increase in the amount of sand from potential tidal activity in the excavated areas relative the amount of sand entering the ocean due to natural tidal action at the Project site would not be significant. Thus, the potential impacts to turbidity in the adjacent Pacific Ocean as a result of construction for the project would be *insignificant*.

Impact HYD-2. The existing revetment has not significantly affected erosional trends along the fronting beach or upcoast and downcoast beaches. Downcoast erosion impacts to adjacent beaches would be *insignificant*.

Impact HYD-3. The beach in front of the revetment has been relatively stable, even slightly accretional, since the 1983 revetment was installed (and even within the lifetime of the original 1964 revetment). The proposed Project would repair and restore the current (1983) revetment design. There are no design changes proposed that would change the rate of shoreline erosion. There would be *no impact* to the rates of erosion on the beach in front of the revetment as a result of implementing the Project. However, in the event that the beach does transition to an erosive state (retreat) due to future SLR, the revetment would provide a *beneficial impact* by preventing loss of property and the backland Carpinteria Salt Marsh.

Impact HYD-4. The revetment protects the Sandyland residences from coastal flooding and inundation from the Pacific Ocean. Based on available information about SLR, the proposed Project would provide a *beneficial impact* in the form of protection from substantial risk of loss, damage or destruction from coastal processes to the Sandyland community and backland Carpinteria Salt Marsh.

Section 3.8
Land Use and Planning

3.8.1 Introduction

This section describes summarizes the land use policies and regulations applicant to the proposed Sandyland Shoreline Protection Project (Project) and assesses land use and planning impacts of the proposed Project. The information and analysis in this section is based on information in previous studies and Environmental Impact Reports (EIRs) prepared by the County. These include the County's Comprehensive Plan, Local Coastal Program (LCP) (i.e., Coastal Land Use Plan [CLUP] and Article II, County Coastal Zoning Ordinance [CZO]), and Land Use and Development Code [LUDC]) and regulations set forth in the Santa Barbara County Code (County Code). Impacts related to land use and planning are assessed based on potential consistency with County policies, the California Coastal Act, and other related and relevant plans, ordinances, and standards.

3.8.2 Environmental Setting

3.8.2.1 Regional Land Use

Land use in Santa Barbara County is governed by the County's Comprehensive Plan – particularly the Land Use Element, and in the Coastal Zone, the CLUP. Land Use Element maps define boundary lines that characterize the intensity of development in the county (County of Santa Barbara 2024). As described in further detail within Section 3.8.2.2, *Project site*, the Project site is located within the following boundaries:

Existing Developed Rural Neighborhood (EDRN) – A neighborhood area that has developed historically with lots smaller than those found in the surrounding Rural or Inner Rural lands. The purpose of the neighborhood boundary is to keep pockets of rural residential development from expanding onto adjacent agricultural lands. Within the EDRN boundary, infilling of parcels at densities specified on the land use plan maps is permitted.

Coastal Zone – The Coastal Zone spans 110 miles of coastline and includes approximately 184 square miles, as well as the offshore Channel Islands. For most of the coastline, this area typically extends inland 1,000 yards from the coast, but it extends further inland in several areas due to the presence of important habitat, recreational, and agricultural resources. These areas include the lands surrounding the Guadalupe Dunes, portions of the Gaviota Coast, and most of the Carpinteria Valley.

Rural Area – An area where development is limited to agriculture and related uses, mineral extraction and related uses, utility-scale solar photovoltaic facilities (if located in the Rural Area of the Cuyama Valley Rural Region), recreation (public or private), low density residential and related uses, and uses of a public or quasi-public nature. The minimum lot size permitted in this area is 40 acres.

The Land Use Element of the County's Comprehensive Plan also guides the physical development of the county, establishes a pattern of land utilization, and sets out standards for both the density of population and the intensity of development for each of the land use classifications. The Land Use Element describes land use classifications, diagrams the distribution of land uses throughout the unincorporated county, and addresses the policies established for each community plan area. As described further within Section 3.8.2.2, *Project site*, the Project site has a land use designation of Single Family; 3.3 units per acre (Res-3.3) and a zoning designation of single-family (10-R-1).

Chapter 35 of the LUDC implements the policies of the County's Comprehensive Plan by classifying and regulating the uses of land within the county. Additionally, Article II, CZO implements the policies of the Comprehensive Plan by classifying and regulating the use of land in accordance with the CLUP. While land use designations characterize allowable physical uses and the intensity of those uses, zoning designations legally define permitted uses and development standards and guidelines for those uses.

3.8.2.2 Project Site

As described in Section 2.2.1, *Project Location and Ownership,* the Project site is located on the coastline of southeast unincorporated Santa Barbara County, approximately 1.1 miles northwest of the City of Carpinteria. The Project site includes a 3,700-foot-long rock revetment stretching across an unnamed beach between Santa Clause Lane Beach and the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. The existing revetment is approximately 65 feet wide on average, covering a total of approximately 5.52 acres across its entire length.

The Project site has a land use designation of Single Family; 3.3 units per acre (Res-3.3) and a zoning designation of single-family (10-R-1). Surrounding land uses include single-family residential to the northwest, open space (Carpinteria Salt Marsh) to the north and east, and the Pacific Ocean to the south and southwest.

At the time of the revetment's initial construction in 1964, the Santa Barbara County Board of Supervisors (Board) established the Sandyland Seawall Assessment District No.1 (Assessment District) and the Sandyland Seawall Maintenance District No.1 (Maintenance District) pursuant to provisions of the Improvement Act of 1911, Division 7 of the Streets and Highways Code of the State of California. The purpose of the Assessment District was to collect adequate funds necessary to construct the revetment. The Maintenance District was formed for the purpose of collecting adequate funds to maintain the revetment. The Maintenance District is administered by the County with expenses for maintaining and operating the revetment assessed upon the real property lying within the Maintenance District. Each of the 25 residences are a member of the Maintenance District. The Sandyland Protective Association is the Homeowners Association (HOA) that includes almost all of the Maintenance District's members. At the time of the original construction, the homeowners granted the County easements for construction and maintenance of the revetment.

3.8.3 Regulatory Setting

State and local plans, policies, and regulations have been enacted to address land use and planning in Santa Barbara County. The following section summarizes applicable policies and regulations that may relate directly to the proposed Project and its associated impacts. There are no Federal regulations that pertain to local land use and planning impacts.

3.8.3.1 State

California Coastal Act

The California Coastal Act, as amended, established the California Coastal Commission (CCC) as a permanent State coastal management and regulatory agency and created a State and local government partnership to ensure that public concerns of State-wide importance are reflected in the local decisions about coastal development. The California Coastal Act (Public Resources Code [PRC] Section 30000 et seq.) was enacted by the State Legislature to provide long-term protection of California's 1,100-mile coastline for the benefit of current and future generations. PRC Section 30001.5 states that the goals are to:

a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources;

b) Assure orderly, balanced utilization and conservation of coastal zone resources, taking into account the social and economic needs of the people of the State;

c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners;

d) Assure priority for coastal-dependent and coastal-related development over other development on the coast;

e) Encourage State and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

The California Coastal Act mandates that local governments and constitutional entities prepare a land use plan and schedule of implementing actions to carry out the policies of the California Coastal Act. The policies constitute the standards used by the CCC to determine the adequacy of these plans and the permissibility of proposed development (PRC Div. 20, Ch. 3). Policies presented in the CLUPs of local jurisdictions mirror, and in some cases expand on, California Coastal Act policies. Santa Barbara County has a certified CLUP and the County and CCC would use the CLUP in reviewing the proposed Project.

The specific policies of the California Coastal Act address issues such as shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, water quality, transportation, development design, and public works. California Coastal Act sections of particular importance to this Project include those that call for minimizing alteration of natural landforms and processes and those that support retention and expansion of coastal recreational uses, including:

> Section 30116. Sensitive coastal resource areas. "Sensitive coastal resource areas" are those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity. "Sensitive coastal resource areas" include the following, which are considered most relevant to the Project:
>
> (b) Areas possessing significant recreational value.
>
> (c) Highly scenic areas.

(f) Areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons.

Section 30220. Protection of certain water-oriented activities. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30221. Oceanfront land; protection for recreational use and development. Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Section 30223. Upland areas. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Section 30235. Construction altering natural shoreline. Revetments, breakwaters, groins, harbor channels, seawalls, cliff-retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

Section 30253. Minimization of adverse impacts. New development shall:

1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

These California Coastal Act sections are discussed under Impact LU-1 and LU-2 below as well as in Section 5, Consistency with Plans and Policies.

3.8.3.2 Local

Santa Barbara County Comprehensive Plan

The County's Comprehensive Plan provides general goals, policies, and programs applicable to the unincorporated portions of the county. The County's Comprehensive Plan expresses the community's development goals, embodies public policy relative to the distribution of future public and private land uses, and is required to maintain internal consistency between all adopted elements. The Land Use Element lays out the general patterns of development throughout the county, including the distribution of real estate, open space and agricultural land, mineral resources, recreational facilities, schools, and waste facilities. Other State-mandated elements included in the County's Comprehensive Plan are the Circulation, Conservation, Housing, Noise, Open Space, Seismic Safety and Safety, and Environmental Justice elements. In addition, the County's Comprehensive Plan contains the following elective elements: Agricultural, Energy, Environmental Resource Management (ERME), Scenic Highways, and Hazardous Waste.

Land Use Element

The Land Use Element of the County's Comprehensive Plan has four fundamental goals relating to the environment, urbanization, agriculture, and open lands. These goals aim to guide growth to locations and at a rate that can be sustained by available resources; to prevent scattered urban development and balance housing and jobs; to preserve cultivated agriculture and lands with both prime and non-prime farmland; and to prioritize open lands for non-urban uses where not suitable for agriculture. Included in the Land Use Element are several goals and policies specific to portions of the unincorporated Carpinteria Valley outside of the Toro Canyon Community Plan area. These policies are intended to slow growth in the Carpinteria area, maintain the existing character and aesthetic of the area, and preserve existing agricultural lands.

Coastal Land Use Plan

The California Coastal Act policies focus on the protection of coastal resources and the regulation of development in the Coastal Zone. The policies govern land uses, including environmentally sensitive habitat areas and agricultural lands, recreational resources, the marine environment, scenic resources, and air quality. While the focus of the policies is on resource protection, the policies also govern land use, industrial development, and public works facilities in order to encourage well-planned and orderly development that is compatible with resource protection and conservation.

Pursuant to the California Coastal Act, each of the 15 counties and 53 cities along the California coast is required to prepare an LCP. The LCP consists of the local government's land use plans, zoning ordinances, zoning district maps, and implementing actions which, when taken together, meet the requirements and implement the provisions and policies of the California Coastal Act at the local level.

The County of Santa Barbara's LCP is comprised of the CLUP, which was originally certified in 1982. The CLUP lays out the general patterns of development throughout the coastal areas of the county. Its purpose is to protect coastal resources while accommodating land use development within the Coastal Zone. The other elements of the Comprehensive Plan are applicable within the Coastal Zone; however, when there is a conflict, the CLUP takes precedence.

Relevant County CLUP policies are presented below:

> Policy 1-2: Where policies within the land use plan overlap, the policy which is the most protective of coastal resources shall take precedence.
>
> Policy 3-1: Seawalls shall not be permitted unless the County has determined that there are no other less environmentally damaging alternatives reasonably available for protection of existing principal structures. The County prefers and encourages non-structural solutions to shoreline erosion problems, including beach replenishment, removal of endangered structures and prevention of land divisions on shorefront property subject to erosion; and, will seek solutions to shoreline hazards on a larger geographic basis than a single lot circumstance. Where permitted, seawall design and construction shall respect to the degree possible natural landforms. Adequate provision for lateral beach access shall be made and the project shall be designed to minimize visual impacts by the use of appropriate colors and materials.
>
> Policy 3-2: Revetments, groins, cliff retaining walls, pipelines and outfalls, and other such construction that may alter natural shoreline processes shall be permitted when designed to eliminate or mitigate adverse impacts on local shoreline sand supply and so as not to block lateral beach access.

Policy 3-3: To avoid the need for future protective devices that could impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers, or where such restriction would cause the inverse condemnation of the parcel by the County.

Policy 7-1: The County shall take all necessary steps to protect and defend the public's constitutionally guaranteed rights of access to and along the shoreline.

Santa Barbara County Coastal Zoning Ordinance

Article II CZO, a part of Chapter 35 (Zoning) of the Santa Barbara County Code, applies to the unincorporated Coastal Zone within Santa Barbara County as well as the Channel Islands. The CZO implements the CLUP by classifying and regulating the uses of land, buildings, and structures in the Coastal Zone. Pursuant to PRC Section 30500 of the California Coastal Act, the County must prepare an LCP for the unincorporated areas of the county within the Coastal Zone. The ordinance contains the coastal zoning district maps, which apply regulations of the ordinance to the properties in the coastal areas.

3.8.4 Environmental Impact Analysis

This section discusses the potential land use and planning impacts associated with the proposed Project, including those that could potentially result from inconsistencies with adopted plans, policies, and regulations.

3.8.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on land use and planning if it would:

a) Physically divide an established community.

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

County of Santa Barbara Thresholds and Guidelines

In addition to the land use and planning thresholds of significance from Appendix G of the CEQA Guidelines, the County's *Environmental Thresholds and Guidelines Manual* requires consideration of "Quality of Life" issues. The County's *Environmental Thresholds and Guidelines Manual* states that although changes to quality of life resulting from implementation of a project are not treated as significant effects on the environment pursuant to CEQA, many quality of life considerations are addressed in Comprehensive Plan policies. The following quality of life issues referenced in the County's *Environmental Thresholds and Guidelines Manual* and the County's Comprehensive Plan policies are relevant and used herein to determine project impacts:

1. Loss of privacy

2. Neighborhood incompatibility
3. Nuisance noise levels (not exceeding noise thresholds)
4. Increased traffic in quiet neighborhoods (not exceeding traffic thresholds)
5. Loss of sunlight/solar access

Non-Applicable Thresholds

CEQA Land Use and Planning Threshold (a) (*Physically divide an established community*): The proposed Project would repair and restore the 1983 design of the existing 3,700-foot-long shoreline protection device by placing new armor rock, raising the crest elevation of the revetment, adjusting the seaward slope of the revetment, and widening the crest. The proposed Project would improve the revetment's ability to protect properties from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to sea level rise (SLR) hazards. Implementation of the proposed Project would not result in rezoning of lands, or redevelopment of existing non-agriculture lands within the county. As such, implementation of the proposed Project would not disrupt or physically divide an established community.

Methodology

Table 3.8-3 evaluates the consistency of the proposed Project with the County's Comprehensive Plan, and other applicable plans, policies, and regulations. Pursuant to the County's *Environmental Thresholds and Guidelines Manual*, projects must conform to the applicable Comprehensive Plan policies, and decision-makers must make findings of consistency in order to approve the land use entitlements required for a project. Further, CEQA Guidelines Section 15125(d) requires that an EIR "…discuss any inconsistencies between the project and applicable general plans and regional plans." The preliminary determinations regarding the consistency of the proposed Project with these policies is presented for informational purposes. All final consistency determinations will be made by the Board of Supervisors during consideration of the proposed Project. While a preliminary determination of inconsistency with these plans or policies in itself would not constitute an impact to the physical environment, an inconsistency with an adopted plan or policy might suggest that the proposed Project would be conducted in such a way that it could result in an impact to the physical environment that is subject to CEQA review. Should the Board of Supervisors determine that the proposed Project is inconsistent with an existing County's Comprehensive Plan or regional plan policy, the proposed Project could not be approved unless measures are identified to eliminate this inconsistency.

3.8.4.2 Project Impacts

Table 3.8-1 below provides a summary of the proposed Project's impacts related to land use and planning. A detailed discussion of each impact follows.

Table 3.8-1. Summary of Land Use and Planning Impacts

Land Use and Planning Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact LU-1. The proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Insignificant	No mitigation required	Insignificant
Impact LU-2. The proposed Project could result in adverse quality-of-life effects to existing communities due to traffic, odors, noise, or other physical environmental impacts.	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact LU-1. The proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The following discussion of County policies and preliminary determinations regarding the consistency of the proposed Project with these policies is presented to comply with CEQA Guidelines Section 15125(d), which requires that an EIR "…discuss any inconsistencies between the proposed Project and applicable general plans and regional plans." This analysis focuses on the relevant local and regional plans and policies identified in Section 3.8.3, *Regulatory Setting* above. Table 3.8-2 summarizes relevant Santa Barbara County CLUP goals and policies, Comprehensive Plan goals and policies, and other relevant plans and policies.

Repair and maintenance of the revetment associated with the proposed Project may involve potential short-term, temporary impacts to scenic views (refer to Section 3.1, *Aesthetics and Visual Resources*) and result in criteria air pollutant and GHG emissions (refer to Section 3.2, *Air Quality* and Section 3.5, *Greenhouse Gas Emissions*), habitat disturbances (refer to Section 3.3, *Biological Resources*), temporary erosion and runoff, water quality impacts (refer to Section 3.7, *Hydrology, Water Quality, and Coastal Processes*), noise (see Section 3.9, *Noise*), disruption of beach access and recreation (see Section 3.10, *Recreation*), and transportation impacts (see Section 3.11, *Transportation*). Nevertheless, preliminary analysis indicates that the proposed Project is potentially consistent with the goals and policies established in the County's plans and ordinances (see Table 3.8-2). Final consistency determinations will be made by the County decision makers when considering the proposed Project and its alternatives.

In addition to the policies identified in Table 3.10-2 below, various community plans within the county provide policies and development standards that address a wide range of resources. Many of these policies are simultaneously addressed in the Land Use, Agricultural, Seismic Safety and Safety, and Conservation elements of the County's Comprehensive Plan. All development, must comply with additional policies included in applicable community plans; however, the Project site is not located in an area under a community plan, and compliance would not be required.

Table 3.8-2. County Land Use Plans and Policies Consistency Summary

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
Coastal Land Use Plan (CLUP)	Policy 1-2	Where policies within the land use plan overlap, the policy which is the most protective of coastal resources shall take precedence.	Potentially consistent. During this review the most protective coastal resource policies would prevail, as required by this policy.
Coastal Land Use Plan (CLUP)	Policy 3-1	Seawalls shall not be permitted unless the County has determined that there are no other less environmentally damaging alternatives reasonably available for protection of existing principal structures. The County prefers and encourages non-structural solutions to shoreline erosion problems, including beach replenishment, removal of endangered structures and prevention of land divisions on shorefront property subject to erosion; and, will seek solutions to shoreline hazards on a larger geographic basis than a single lot circumstance. Where permitted, seawall design and construction shall respect to the degree possible natural landforms. Adequate provision for lateral beach access shall be made and the project shall be designed to minimize visual impacts by the use of appropriate colors and materials.	Potentially consistent. The implementation of the proposed Project would not introduce a new seawall; rather it would repair and restore the original design of the existing 3,700-foot-long revetment, which was installed in 1983. The proposed Project would place up to 15,000 tons of new 3- to 5-ton armor rock, restoring the crest elevation and width of the revetment to 16.4 feet (relative to NAVD88 vertical datum) and 10 feet, respectively. The seaward slope of the revetment would be restored to a slope of 2:1 (horizontal:vertical). Repair work would also involve minor re-working of the revetment (e.g., shifting of armor rock), using new (imported) armor rock to fill voids in the revetment, correct low-points and reduced width in the revetment crest, and address areas where existing armor rock has been dislodged. The proposed materials (i.e., armor rock) would adequately match the existing seawall, thereby minimizing visual impacts. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, Sand Point Road is a private, gated access road that limits the ability of the public to access the unnamed beach. Further, the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. Various alternatives, such as rebuilding the existing revetment within the 1983 design footprint or installing a pull-back revetment, are also considered in this EIR (see Chapter 4, *Alternatives*); however, the proposed Project was

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
			determined to be the Environmentally Superior Alternative as it minimizes potential environmental impacts, particularly construction-related environmental impacts, while accomplishing the Project Objectives to the greatest extent.
Coastal Land Use Plan (CLUP)	Policy 3-2	Revetments, groins, cliff retaining walls, pipelines and outfalls, and other such construction that may alter natural shoreline processes shall be permitted when designed to eliminate or mitigate adverse impacts on local shoreline sand supply and so as not to block lateral beach access.	Potentially consistent. The implementation of the proposed Project would not introduce a new revetment; rather it would repair and restore the original design of the existing 3,700-foot-long revetment, which was installed in 1983. The proposed Project would improve the revetment's ability to protect properties from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to SLR hazards. Issues related to sand supply are discussed in detail in Section 3.7, *Hydrology, Water Quality, and Coastal Processes*. As described therein, the existing revetment does not significantly alter the sand supply to downcoast beaches, due to the fact that the area behind the revetment is not underlain by eroding bluffs or a significant volume of sand. Sandyland sits atop a low-lying spit fronting a salt marsh, which would not contribute a substantial amount of sediment to the littoral system. Further, the revetment does not exacerbate shoreline erosion as discussed in Section 3.7, *Hydrology, Water Quality, and Coastal Processes*. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, Sand Point Road is a private, gated access road that limits the ability of the public to access the unnamed beach. Further, lateral access across the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable.
Coastal Land Use Plan (CLUP)	Policy 3-3	To avoid the need for future protective devices that could	Potentially consistent. The implementation of the proposed Project would not introduce a new protective device; rather it

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
		impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers, or where such restriction would cause the inverse condemnation of the parcel by the County.	would repair and restore the original design of the existing 3,700-foot-long revetment, which was installed in 1983. The proposed Project would improve the revetment's ability to protect existing residential development from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to SLR hazards. Future repairs to the revetment would be implemented only when necessary to protect public health and safety.
Coastal Land Use Plan (CLUP)	Policy 7-1	The County shall take all necessary steps to protect and defend the public's constitutionally guaranteed rights of access to and along the shoreline. At a minimum, County actions shall include: (a) Initiating legal action to acquire easements to beaches and access corridors for which prescriptive rights exist consistent with the availability of staff and funds. (b) Accepting offers of dedication which will increase opportunities for public access and recreation consistent with the County's ability to assume liability and maintenance costs. (c) Actively seeking other public or private agencies to accept offers of dedications, having them assume liability and maintenance responsibilities, and allowing such agencies to initiate legal action to pursue beach access.	Potentially consistent. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, Sand Point Road is a private, gated access road that limits the ability of the public to access the unnamed beach. Further, lateral access across the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. Over the long-term, the proposed Project would include marginal improvements to coastal access to/from the beach and across the repaired revetment. The proposed Project would dedicate a new 5-foot-wide trail/public accessway providing a publicly accessible connection from Santa Claus Lane to the beach at Sand Point Road. From the intersection of Santa Claus Lane and Sand Point Road, the accessway would follow the road shoulder of Sand Point Road across the Union Pacific Railroad tracks. The accessway would then cross to the west across a vacant area of Assessor Parcel Number (APN) 005-460-038 to connect to private roadway belonging to the Casa Blanca Beach Estates Owners Association on APN 005-600-018. If public access easements were to be dedicated by both HOAs, the County could partner with the HOAs to develop a safe, California

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
			Public Utilities Commission (CPUC) compliant at-grade pedestrian rail crossing modeled after the Santa Claus Lane Pedestrian At-Grade Rail Crossing Plan Project (refer to Section 3.0.6, *Cumulative Impacts Analyses*).
California Coastal Act	Section 30220	Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.	Potentially consistent. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. Those engaged in water activities (e.g., kayaking, paddleboarding, surfing, swimming, etc.) would generally be unaffected by the proposed Project, apart from short-term temporary impacts on views.
California Coastal Act	Section 30221	Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.	Potentially consistent. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. Those engaged in water activities (e.g., kayaking, paddleboarding, surfing, swimming, etc.) would generally be unaffected by the proposed Project, apart from short-term temporary impacts on views.
California Coastal Act	Section 30223	Upland areas necessary to support coastal recreational uses shall be	Potentially consistent. The Project site is located seaward of 25 private residencies, which are themselves located within a gated community just south of Santa Claus Lane Beach. These upland

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
		reserved for such uses, where feasible.	areas can only be accessed by residents of the community and their guests. The proposed Project would have no effect on these existing upland access issues.
California Coastal Act	Section 30235	Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.	Potentially consistent. The implementation of the proposed Project would not introduce a new revetment; rather it would repair and restore the original design of the existing 3,700-foot-long revetment, which was installed in 1983. The proposed Project would improve the revetment's ability to protect existing residential structures from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to SLR hazards. Issues related to water quality and sand supply are discussed in detail in Section 3.7, *Hydrology, Water Quality, and Coastal Processes*. As described therein, the implementation of the proposed Project would not exacerbate any water quality concerns, i.e. does not cause any water stagnation. Further, the existing revetment does not significantly alter the sand supply to downcoast beaches, due to the fact that the area behind the revetment is not underlain by eroding bluffs or a significant volume of sand. Sandyland sits atop a low-lying spit fronting a salt marsh, which would not contribute a substantial amount of sediment to the littoral system. As discussed in Section 3.7, *Hydrology, Water Quality, and Coastal Processes*, the revetment does not exacerbate shoreline erosion. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. The revetment also serves to stabilize the Carpinteria Salt Marsh tidal inlet.

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
California Coastal Act	Section 30253	New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled. (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.	Potentially consistent. The implementation of the proposed Project would not introduce new development.
Santa Barbara County Comprehensive Plan	Land Use Element/Land Use Policy	Development should complement the natural contours of land, utilizing, wherever possible, existing environmental conditions; The agricultural economy and the semi-rural qualities of the area should be preserved.	Potentially consistent. The implementation of the proposed Project would not introduce new development.

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
Santa Barbara County Land Use Code	Coastal Zoning Ordinance	To avoid the need for future protective devices that could impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers, or where such restriction would cause the inverse condemnation of the lot by the County.	Potentially consistent. The implementation of the proposed Project would not introduce a new protective device; rather it would repair and restore the original design of the existing 3,700-foot-long revetment, which was installed in 1983. The proposed Project would improve the revetment's ability to protect existing residential development from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to SLR hazards. Future repairs to the revetment would be implemented only when necessary to protect public health and safety.
Santa Barbara County Land Use Code	Coastal Zoning Ordinance	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. In coastal areas, where the bluffs exceed five feet in height, the lateral easement shall include all beach seaward of the base of the bluff. In coastal areas where the bluffs are less than five feet, the area of the easement to be granted shall be determined by the County based on findings reflecting historic use, existing and future public recreational needs and coastal resource protection. At a minimum, the lateral easement shall be adequate to allow for lateral access during periods of high tide. In no case shall the lateral easement be required to be closer than 10 feet to a residential	Potentially consistent. Issues related to lateral access are addressed in detail in Section 3.10, *Recreation*. Under existing conditions, Sand Point Road is a private, gated access road that limits the ability of the public to access the unnamed beach. Further, lateral access across the unnamed beach fronting the revetment is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or laterally along the beach during periods of very low tides (e.g., King Tides) when the revetment fronting the Casa Blanca Beach Estates is passable. Over the long-term, the proposed Project would include marginal improvements to coastal access to/from the beach and across the repaired revetment. The proposed Project would construct one new shore-perpendicular accessway providing public access connection between the beach and Sand Point Road. One new coastal access path and stairway has been proposed to be constructed for access from Satna Claus Lane to Sand Point Road and across the revetment to the beach at the far north/west end on APN 005-600-018. However, Sand Point Road currently remains a private, gated access road that would limit the ability of the public to access the unnamed beach via this

Table 3.8-2. County Land Use Plans and Policies Consistency Summary (Continued)

Element/Plan	Policy Name/Number	Policy	Consistency Analysis
		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. This policy shall not apply to development excluded from the public access requirements of the Coastal Act by Public Resources Code Section 30212 or to development incidental to an existing use on the site.	new coastal access path unless both HOAs agreed to the location and public use.

Impact LU-2. The proposed Project could result in adverse quality-of-life effects to existing communities due to traffic, odors, noise, or other physical environmental impacts.

The proposed Project would repair and restore the 1983 design of the existing 3,700-foot-long shoreline protection device by placing new armor rock, raising the crest elevation of the revetment, adjusting the seaward slope of the revetment, and widening the crest. The proposed Project would improve the revetment's ability to protect properties from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to SLR hazards. The proposed Project could create limited adverse quality-of-life impacts as a result of the development itself, including nuisance criteria air pollutant emissions, noise levels, and construction traffic.

Short-term temporary increases in criteria pollutant emissions would result from all phases of construction activities, particularly due to the hauling of rocks and sand to the Project site and the operation of equipment such as track-mounted long-reach excavators, front-end loaders, haul trucks. Emissions from construction activities would include PM_{10} and exhaust emissions (ROCs, NO_x, CO, SO_2, $PM_{2.5}$). Future emissions would be limited to construction activities required for routine maintenance; maintenance would occur approximately every 10 years or in response to damage to the revetment from a storm or severe weather event. However, emissions resulting from construction and maintenance activities would not exceed any relevant thresholds, as discussed in Section 3.2, *Air Quality.*

The proposed Project could result in increased noise levels during Project construction. Temporary noise would be generated from construction activities, including the repair of the seawall, the installation of dune vegetation, and improvements to coastal access. This would involve construction activities that would generate noise, including temporary onsite noise from heavy construction equipment and off-site noise from haul trucks and construction worker commutes. This effect is likely to be greatest along Sand Point Road, where the revetment would be repaired. However, construction noise would be temporary and intermittent in nature.

As described in Section 2.3.3, *Project Construction*, repair of the revetment and installation of dune vegetation would require the import of an estimated 15,000 tons of armor rock and 3,000 cy of sand, respectively. Armor rock material is assumed to be imported from either the Bee Rock Quarry, located in Santa Barbara approximately 35 miles to the northwest of the Project site, or from Pacific Rock Inc., located in Camarillo approximately 40 miles to the southeast the Project site. Assuming 10 tons per truck, the import of 15,000 tons of rock material would require an estimated 1,500 roundtrip haul truck trips. The approximately 3,000 cy of sand would similarly be imported from a local quarry (i.e., Bee Rock Quarry or Pacific Rock Inc.) or other opportunistic sand source with beach quality sand. Assuming 14-16 cubic yard [cy] haul truck size, import of sand material necessary for the Project would require an additional estimated 200 roundtrip haul truck trips. Approximately 30 additional haul truck trips would be required for hauling of non-native ice plant vegetation for disposal offsite, as part of the dune vegetation enhancement activities. Additionally, approximately 10 haul truck trips would be required for hauling the construction debris from the demolition of existing stairways and approximately 11 concrete truck trips would be required for construction of the new stairways. In total, construction activities would require an estimated 2,752 roundtrip truck trips. However, as described in Section 3.2, *Air Quality*, Section 3.9, *Noise*, and Section 3.11, *Transportation* these impacts would be short-term temporary and insignificant.

Overall, impacts to quality of life associated with the proposed Project would be *insignificant*.

3.8.4.3 Cumulative Impacts

As described in Section 3.0, *Environmental Impact Analysis*, the cumulative setting for the proposed Project involves a variety of policies and initiatives in the county, as well as development projects in the county and surrounding communities. Project impacts, along with potential impacts from future maintenance, inform the cumulative impacts analysis. While the proposed Project would generate pollutant emissions (refer to Section 3.3, *Air Quality*), the cumulative impact would be insignificant. Therefore, the proposed Project's contribution to these effects would not result in inconsistency with existing policies and would not result in cumulatively significant land use and planning impacts.

3.8.4.4 Proposed Mitigation

No mitigation measures are required.

3.8.4.5 Residual Impacts

Impact LU-1. The proposed Project would not result in adverse effects relating to land use and planning, or quality of life. The proposed Project would be consistent with applicable land use regulations implementation of existing Federal, State, and local regulations.

3.9.1 Introduction

This section identifies and evaluates potential noise impacts that could arise from the proposed uses and related development for the proposed Sandyland Shoreline Protection Project (Project). Key resources or data used in the preparation of this section include the Noise and Land Use Elements of the County of Santa Barbara's (County's) Comprehensive Plan, Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide, U.S. Environmental Protection Agency (USEPA) Noise Effects Handbook, and various noise publications.

It should be noted that this section addresses airborne; underwater noise is not discussed in this Environmental Impact Report (EIR) because the proposed Project does not involve in-water work.

3.9.1.1 Fundamentals of Noise

Noise is defined as unwanted sound. It is usually objectionable because it is disturbing or annoying. The pitch or loudness create the objectionable characteristics of sound. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is the amplitude of sound waves combined with the reception characteristics of the ear. Commonly used technical acoustical terms are defined in Table 3.9-1.

Decibels and Frequency

In addition to the concepts of pitch and loudness, several noise measurement scales are used to describe noise. The decibel (dB) is a unit of measurement that indicates the relative amplitude of a sound. Zero on the decibel scale is based on the lowest sound pressure that a healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense, and so on. There is a relationship between the subjective noisiness or loudness of a sound and its perceived sound level. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness over a wide range of amplitudes. Because decibels are logarithmic units, sound pressure levels are not added arithmetically. When two sounds of equal sound pressure level are added, the result is a sound pressure level that is 3 dB higher. For example, if the sound level is 80 dB when one generator is operating, then it would be 83 dB when two generators are operating at the same distance from the observer. Doubling the amount of energy would result in a 3-dB increase to the sound level. Noise levels do not change substantially when a quieter noise source is added to relatively louder ambient noise levels. For example, if a 60 dB noise source is added to 70 dB ambient noise levels, the resulting noise level is equal to 70.4 dB at the location of the new noise source.

Frequency relates to the number of pressure oscillations per second, or Hertz (Hz). The range of sound frequencies that can be heard by healthy human ears is from about 20 Hz at the low-frequency end to 20,000 Hz (20 kilohertz [kHz]) at the high-frequency end.

Table 3.9-1. Definitions of Acoustical Terms

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micropascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals in air). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency (Hertz [Hz])	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 and 20,000 Hz. Infrasonic sounds are below 20 Hz, and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average A-weighted noise level during the measurement period. The hourly L_{eq} used for this report is denoted as dBA L_{eq}[h].
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day obtained after the addition of 5 dB to sound levels in the evening from 7:00 P.M. to 10:00 P.M. and after the addition of 10 dB to sound levels in the night between 10:00 P.M. and 7:00 A.M.
Day-Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day obtained after the addition of 10 dB to levels measured in the night between 10:00 P.M. and 7:00 A.M.
Minimum Noise Level (L_{min})	The minimum noise level measured during the measurement period.
Maximum Noise Level (L_{max})	The maximum noise level measured during the measurement period.
L_1, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	Noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content as well as the prevailing ambient noise level.

There are several methods for characterizing sound, the most common of which is the dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Studies have shown that the dBA is closely correlated with annoyance to traffic noise. Other frequency weighting networks, such as C-weighted sound level (dBC), have been devised to describe noise levels for specific types of noise (e.g., explosives). Table 3.9-2 shows typical A-weighted sound levels that occur in human environments.

Table 3.9-2. Typical Noise Levels in the Environment

Noise Level dBA	Extremes	Home Appliances (at 3 Feet)	Speech (at 3 Feet)	Motor Vehicles (at 50 Feet)	General Type of Community Environment
120	Jet aircraft at 500 feet				
110		Chain saw			
		Gas lawnmower		Diesel truck (not muffled)	
100					
		Shop tools	Shout		
90		Blender	Loud voice	Automobile at 70 mph	Major metropolis
		Dishwasher	Normal voice	Automobile at 40 mph	Urban (daytime)
80					
		Air-conditioner	Normal voice (back to listener)	Automobile at 20 mph	Suburban (daytime)
70					
		Refrigerator			Rural (daytime)
60					
50					
40					
30					
20	Threshold of hearing				
10					

Source: Harris Miller Miller & Hanson Inc. 2006.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations is utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. A common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. Two metrics are commonly used to describe the 24-hour average – L_{dn} and CNEL. Both include penalties for noise during the nighttime hours (10:00 P.M. to 7:00 A.M.). CNEL also penalizes noise during the evening hours (7:00 P.M. to 10:00 P.M.). CNEL and L_{dn}, which are normally within 1 dBA of each other, are used interchangeably in this section.

Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the factors discussed below.

- Geometric spreading: In the absence of obstructions, sound from a single source (i.e., a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level typically attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a

highway makes the source of the sound appear to emanate from a line (i.e., a "line" source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The drop-off in sound level from a line source is typically 3 dBA per doubling of distance.

- Ground absorption: Usually the noise path between the source and the observer is very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation caused by geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically "hard" sites (i.e., sites with a reflective surface, such as a parking area or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed. For acoustically absorptive or "soft" sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.
- Atmospheric effects: Research by the U.S. Department of Transportation (DOT) and Federal Transit Administration (FTA) has shown that atmospheric conditions can have a major effect on noise levels (Harris Miller Miller & Hanson Inc. 2006). Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation).
- Shielding by natural or human-made features: A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor specifically to reduce noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dBA of noise reduction. A higher barrier may provide as much as 20 dBA of noise reduction.

In summary, noise levels from a particular source decline (i.e., attenuate) as the distance to the receptor increases. Other factors, such as the weather and reflecting or shielding by buildings or other structures, also intensify or reduce the noise level at a location. A common method for estimating roadway noise is that for every doubling of distance from the source, the noise level is reduced by approximately 3 dBA at acoustically "hard" locations (i.e., mostly asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically "soft" locations (i.e., exposed soil or landscaping, such as grass). Noise from stationary sources – including construction noise – is reduced by approximately 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by approximately 5 dBA, while a solid wall or berm can reduce noise levels by up to 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer

residential units is generally 30 dBA or more (California Department of Transportation [Caltrans] 2002).

Human Response to Noise

Sensitive Receptors

Noise-sensitive receptors are generally defined as locations where people reside or where the presence of unwanted sound may adversely affect the use of the land. Noise-sensitive receptors typically include residences, hospitals, schools, guest lodging, libraries, and certain types of passive recreational uses. Implementation of the proposed Project may temporarily affect the following sensitive land uses within the immediate vicinity of the Project site or along the haul truck route during construction:

- Residential land uses, including but not limited to retirement/assisted living homes
- Transient lodging (e.g., hotels and motels)
- Schools and libraries
- Hospitals and medical care facilities
- Parks and recreational land uses
- Churches and places of worship

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, changes in noise level of 3 dBA are considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud.

Noise and Health

A number of studies have linked increases in noise with health effects, including hearing impairment, sleep disturbance, cardiovascular effects, psychophysiological effects, and potential impacts on fetal development (Babisch 2005). Potential health effects appear to be caused by both short- and long-term exposure to very loud noises and long-term exposure to lower levels of sound. Acute sounds (i.e., L_{AF}[1] greater than 120 dBA) can cause mechanical damage to hair cells of the cochlea (the auditory portion of the inner ear) and hearing impairment (Babisch 2005). An L_{AF} greater than 120 dBA is equivalent to a rock concert or an airplane flying overhead at 984 feet.

The World Health Organization (WHO) and the USEPA consider a L_{eq} equal to 70 dBA to be a safe daily average noise level for the ear. However, even this "ear-safe" level can cause disturbance to sleep and concentration and may be linked to chronic health impacts such as hypertension and heart disease (Babisch 2008).

A number of studies have looked at the potential health effects of chronic lower noise levels, such as traffic, especially as these noise levels affect children. In a study of school children in Germany, blood pressure was significantly higher in a group of students exposed to road traffic noise from high-traffic transit routes (Babisch 2008). A study by Kawada (2004) showed that exposure to airplane noise was found to be associated with decreased fetal body weight in pregnant women (Kawada 2004).

[1] L_{AF} = sound level with "A" frequency weighting and fast-time weighting.

Noise Annoyance

People's response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to stress and annoyance. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases. Annoyance may occur at noise levels well below levels known to cause direct physiological harm.

Unwanted noise interferes with human activities by distracting attention and by making activities more difficult to perform, especially when concentration is needed. Interference from noise can even make some activities (e.g., communication or sleep) virtually impossible. However, except in the case of interference with verbal communication, the degree of interference is difficult to quantify or to relate to the level of noise exposure (USEPA 1979).

The degree of interference and annoyance depends on noise volume, duration and frequency of occurrence, time of year, time of day or night, accustomed ambient noise levels, previous experiences of intrusive noise, attitude toward the noise source, and noise characteristics (USEPA 1979). Noises that can be particularly annoying include: pure tones (e.g., truck back-up beepers), low-frequency noise (e.g., rumbling of heavy equipment), and impulsive noise (e.g., helicopters or pile drivers).

Vibration

Vibration is sound radiated through the ground. In the context of noise, groundborne vibration is the vibration, or oscillation, of the ground, floor, and walls. The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumbling noise. The rumble is the noise radiated from the motion of the room surfaces. In essence, the room surfaces act like a giant loudspeaker causing what is called groundborne noise. Groundborne vibration is rarely annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumbling noise that usually accompanies the building vibration is perceptible only inside buildings.

Vibration Definitions & Perception

The ground motion caused by vibration is measured as particle velocity in inches per second (in/sec); in the U.S., this is referenced as vibration decibels (VdB) (Harris Miller & Hanson Inc. 2006). The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts on buildings and is usually measured in in/sec. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal.

Table 3.9-3. Human Response to Different Levels of Groundborne Vibration (PPV)

Human Response	Transient PPV (in/sec)	Continuous PPV (in/sec)
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.9	0.1
Severe/Disturbing	2	0.4

Source: Caltrans 2020.
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, the movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration include construction equipment (e.g., heavy haul trucks, concrete trucks) and traffic on rough roads. If a roadway is smooth, the groundborne vibration from automobile traffic is rarely perceptible, although larger trucks carrying heavy loads can generate perceptible vibration. The range of interest (velocity level) for groundborne vibration is from approximately 50 VdB to 100 VdB. General human responses to different levels of groundborne vibration velocity levels are described in Table 3.9-3. A velocity level of 50 VdB is the typical background vibration velocity level, while a velocity level of 100 VdB is the general threshold where minor damage can occur in fragile buildings (Harris Miller Miller & Hanson Inc. 2006b).

Effects of Vibration

Vibration can cause buildings to shake and rumbling sounds to be heard. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as rock blasting, pile driving, and heavy earth-moving equipment. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.

In contrast to noise, vibration is not a common environmental problem. Ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that can affect concentration or disturb sleep. Similar to noise, high vibration levels are also known to affect animal behavior. High vibration levels can interfere with mating activities, stress wildlife, and disturb nesting habitats (refer to Section 3.3, *Biological Resources*).

High levels of ground-borne vibration can damage fragile buildings, including historic structures, or interfere with equipment that is highly sensitive to ground-borne vibration (e.g., electron microscopes). Factors that influence ground-borne vibration effects include the foundation type and building materials (e.g., masonry). Typical human and structural responses to vibration are shown in Tabel 3.9-4. PPV (in/sec) levels that could cause structural damage are shown in Table 3.9-5; fragile buildings in the Project site could be affected by continuous (i.e., ongoing) vibrations of 0.1 in/sec and transient (i.e., singular events) vibrations of 0.2 in/sec.

Table 3.9.19-4. Human and Structural Responses to Typical Levels of Vibration

Human/Structural Response	Vibration Velocity Level (VdB)	Typical Sources
Threshold, minor cosmetic damage to fragile buildings	100	Blasting from construction projects
Difficulty with tasks (e.g., reading a screen)	90	Bulldozers and other heavy-tracked construction equipment
Residential annoyance, transient events	80	Commuter rail, upper range
Residential annoyance, continuous events	70	Rapid transit, typical
Human threshold of perception and limit for vibration-sensitive equipment	65	Bus or truck, typical
No human response	50	Typical background vibration

Source: FTA 2018.

Table 3.9-5. Vibration Thresholds for Potential Structural Damage

Structure and Condition	Transient (in/sec)	Continuous (in/sec)
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1	0.5
Modern industrial/commercial buildings	2	0.5

Source: Caltrans 2020.

3.9.2 Environmental Setting

3.9.2.1 Existing Noise Environment

Land uses within the urbanized areas of the unincorporated county include a range of residential, commercial, agricultural, industrial, and recreational uses. Stationary sources of noise in the urban environment include machinery noise (e.g., fans) from building HVAC and utility systems, sounds generated from solid waste management facilities (e.g., dumpsters and trash hauling operations), and regular deliveries or other building services (e.g., backup beepers, loading docks, large doors, forklifts, and other equipment). In urbanized locations outside the immediate influence of major transportation noise sources, ambient day-night average levels typically range from 46 dBA to 57 dBA. Although localized noise nuisances may exist in these areas (e.g., barking dogs, amplified music, delivery trucks), generally ambient noise levels are acceptable, based on health and welfare criteria (County of Santa Barbara 2021). In residential areas, noise levels are similar to those found throughout the nation in locations the USEPA describes as “Quiet Suburban” (50 dB L_{dn}) or “Normal Suburban (55 dB L_{dn}) (County of Santa Barbara 2009).

The Project site is located in a small private residential community located along Sand Point Road, a private roadway, adjacent to the Pacific Ocean and the Carpinteria Salt Marsh Reserve, south of U.S. Highway 101 (Hwy 101) and the Union Pacific Railroad (UPRR). Due to the location of the Project site, the principal contributors to the ambient noise environment of the area are vehicular traffic on Hwy 101, train traffic along UPRR, passenger vehicles travelling intermittently along Santa Claus Lane and Sand Point Road, noise from residential activities, and noise from ocean waves.

Transportation Noise

The Project site is located more than 550 feet south of Hwy 101. Roadway noise is limited at the Project site due to elevation difference, distance from the road, and the screening effect of houses, with daytime traffic noise primarily audible from decelerating trucks or other peak noises.

L_{dn} from traffic on major roadways can be estimated from information about total traffic volume, truck traffic volume, traffic speed, distribution of traffic between daytime and nighttime hours, and physical characteristics of the roadway. L_{dn} at 50 feet from Hwy 101 vary from a low of approximately 70 dBA (between Buellton and Los Alamos) to a high of approximately 78 dBA (between Mission Street and Las Positas in Santa Barbara).[2] On the South Coast (e.g., along the most heavily traveled segment of Hwy 101 on the South Coast between Mission Street and Las Positas) noise levels drop to 60 dBA or less beyond approximately 800 feet (County of Santa Barbara 2009).





Roadway noise along Hwy 101 and railway noise along the UPRR can reach a maximum of 80 dB L_{dn} within 50 feet of the transportation corridor.

Railroad Noise

The UPRR, which provides Amtrak passenger service and regional freight train service, contributes to community ambient noise levels. Sound levels from individual trains can reach 96 dBA to 100 dBA at a distance of 100 feet (County of Santa Barbara 2009). With approximately 35 passenger trains and up to 43 freight trains passing through the corridor per week, UPRR can generate average noise levels up to 71 dB L_{dn} within 50 feet. Further, some segments of UPRR, including the segment closest to the Project site, run contiguous with Hwy 101 and, as a result, combine with other transportation noise sources (e.g., roadway noise) to amplify the average sound levels in the vicinity. For example, when combined, roadway and railway noise levels along Hwy 101 at Santa Monica Road, can reach an estimated maximum of 80 dB L_{dn} within 50

[2] Day-Night Average Sound Levels represent a weighted average of noise levels experienced over an entire day and depend on total traffic volume, percent truck traffic, and other parameters. For example, while Day-Night Average Sound Levels range from 70 dBA to 78 dBA 50 feet from Hwy 101, maximum noise levels from individual trucks can reach 85 dBA to 90 dBA and maximum levels from automobiles can reach 75 dBA to 80 dBA at this distance.

feet of the corridor (County of Santa Barbara 2024). However, even at its closest point the Project site is located more than 425 feet from the rail corridor and therefore noise levels are less than 72 dB L_{dn} based on standard distance attenuation.

Ocean Noise

The Project site is located immediately adjacent to the Pacific Ocean, with perhaps the most significant contribution to the existing noise environment being noise generated by natural soundscapes (e.g., crashing ocean waves). Noise studies conducted in San Diego as part of a beach nourishment project measured beach-front baseline noise levels ranging from 62 to 69 dBA, with the major contributing noise source being wave action (San Diego Association of Governments [SANDAG] 2011). Similarly, noise studies for an Environmental Impact Report (EIR) on Ellwood Beach in Santa Barbara County identified a CNEL of 64 dBA with a range of 57.7 to 63.8 dBA, with the major noise source being ocean waves (California State Lands Commission [CSLC] 2009, 2011).

3.9.2.2 Sensitive Receptors

As previously described, noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound or vibration could adversely affect the current or planned land uses. The definition of "sensitive uses" found in the County's *Environmental Thresholds and Guidelines Manual* includes schools, residential development, commercial lodging facilities, hospitals or care facilities (County of Santa Barbara 2021).

The Project site traverses 25 private residential properties along Sand Point Road and is located within close proximity to other private residences of the Casa Blanca Beach Estates neighborhood. There are no schools, commercial lodging facilities, or care facilities in the immediate vicinity of the Project site.

Further, the number of sensitive receptors along the haul truck route would be limited. Haul trucks headed southbound along Hwy 101 (e.g., to Pacific Rock Inc. quarry) would travel along Sand Point Road before crossing the railroad tracks and a pedestrian crosswalk and entering a roundabout on Santa Claus Lane and existing onto Hwy 101. Haul trucks headed north bound on Hwy 101 (e.g., to Bee Rock Quarry) would continue through the roundabout exiting onto Santa Claus Lane, turning right onto the underpass along Padaro Lane and turning left onto the onramp. Development along this segment of Santa Claus Lane is generally limited to commercial and tourist serving uses, with the exception of three residential developments located approximately 1,350 feet to the south of the intersection of Santa Claus Lane and Padaro Road as well as additional residential developments located at the intersection of Santa Claus Lane and Padaro Road.

3.9.3 Regulatory Setting

3.9.3.1 Federal

Noise Control Act

The Noise Control Act recognized the role of the Federal government in dealing with major commercial noise sources that require uniform treatment. Since Congress has the authority to regulate interstate and foreign commerce, regulation of noise generated by such commerce also falls under congressional authority. The Federal government specifically preempts local control of noise from aircraft, railroads, and interstate highways. The USEPA has identified acceptable noise levels for various land uses to protect the public, with an adequate margin of safety, and to establish noise emissions standards for interstate commerce. The U.S. Department of Housing and Urban Development (HUD) standards define L_{dn} at or below 65 dB for outdoors as acceptable for residential areas.

3.9.3.2 State

California Noise Control Act

The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also recognizes that continuous and increasing bombardment of noise exists in urban, suburban, and rural areas. This act declares that the State of California has the responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise.

California Code of Regulations Section 65302(f)

California Code of Regulations, Section 65302(f), requires local land use planning jurisdictions to prepare a general plan. The noise element is a mandatory component of the general plan. It may include general community noise guidelines developed by the California Department of Health Services and specific planning guidelines for noise/land use compatibility developed by the local



Sensitive receptors along the northbound haul route are limited to three residential developments along Santa Claus Lane and additional residential developments located at the intersection of Santa Claus Lane and Padaro Road, all of which are located within 100 feet of Hwy 101 and/or UPRR.

jurisdiction. The State guidelines also recommend that the local jurisdiction consider adopting a local noise control ordinance.

State Department of Health Services

The California Department of Health Services developed guidelines for community noise acceptability for use by local agencies. Selected relevant levels are as follows (L_{dn} may be considered nearly equal to CNEL):

- CNEL below 60 dBA – normally acceptable for low-density residential use
- CNEL of 55 dBA to 70 dBA – conditionally acceptable for low-density residential use
- CNEL below 65 dBA – normally acceptable for high-density residential use
- CNEL of 60 to 70 dBA – conditionally acceptable for high-density residential use, transient lodging, churches, and educational and medical facilities
- CNEL below 70 dBA – normally acceptable for playgrounds and neighborhood parks

"Normally acceptable" is defined as satisfactory for the specified land use, assuming that normal conventional construction is used in buildings. "Conditionally acceptable" may require some additional noise attenuation or special study. Under most of these land use categories, overlapping ranges of acceptability and conditionally acceptable are presented, leaving some ambiguity in areas where noise levels fall within the overlapping range.

California Building Code / Insulation Standards

Title 24 of the California Code of Regulations (CCR) includes Sound Transmission Control requirements that establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwelling units other than detached single-family units. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings. Where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL, the standards require an acoustical analysis demonstrating how dwelling units have been designed to meet the interior standard. Dwelling units are to be designed so that interior noise levels would meet this standard for at least 10 years from the time of a building permit application.

California Department of Transportation

The Caltrans Transportation and Construction Vibration Guidance Manual provides guidance and procedures that "…should be treated as screening tools for assessing the potential for adverse vibration effects related to human perception, structural damage, and equipment. This document is not an official policy, standard, specification, or regulation, and should not be used as such."

As discussed above, the Caltrans vibration criteria for assessing structural damage and human perception are shown in Table 3.9-4 and Table 3.9-5 above.

California Air Resources Board Anti-Idling Measure

In 2004, the California Air Resource Board adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling (Title 13, CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed

to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at a time at a location, thereby minimizing vehicle noise from idling vehicles.

3.9.3.3 Local

Santa Barbara County Comprehensive Plan

The County Comprehensive Plan is a "comprehensive, long-term general plan" that governs the future growth and development of the unincorporated county. The County Comprehensive Plan contains land use goals, policies, and implementation measures within each of its elements. The Noise Element identifies and appraises noise problems within the community and influences the distribution of land uses based on the noise level associated with those land uses.

The County's *Environmental Thresholds and Guidelines Manual*, Chapter 12, Noise Thresholds (October 2008) and the Noise Element of the County's Comprehensive Plan and the County's *Environmental Thresholds and Guidelines Manual*, Chapter 12, Noise Thresholds (October 2008) include the following standards related to noise:

a. In the planning of land use, a 65 dBA day-night average sound level is regarded as the maximum exterior noise exposure compatible with noise-sensitive uses unless noise mitigation features are included in project designs.

b. Noise-sensitive land uses are considered to include:

    i. Residential areas, including single- and multi-family dwellings, mobile home parks, dormitories, and similar uses;

    ii. Transient lodging, including hotels, motels, and similar uses;

    iii. Hospitals, retirement/assisted living homes, and other medical care facilities;

    iv. Public or private educational facilities and libraries;

    v. Parks and recreational areas; and,

    vi. Churches and places of worship.

c. Noise-sensitive uses proposed in areas where the day-night average sound level is 65 dBA or more should be designed so that interior noise levels attributable to exterior sources do not exceed 45 dBA L_{dn} when doors and windows are closed. An analysis of the noise insulation effectiveness of proposed construction should be required, showing that the building design and construction specifications are adequate to meet the prescribed interior noise standard.

d. Residential uses proposed in areas where the day-night average sound level is 65 dBA or more should be designed so that noise levels in exterior living spaces will be less than 65 dBA L_{dn}. An analysis of proposed projects should be required, indicating the feasibility of noise barriers, site design, building orientation, and other features in order to meet prescribed exterior noise standards.

e. The Planning and Development Department, including the Building and Safety Division, and the Public Health Department's Environmental Health Services Division have administrative procedures for determining project compliance with the State Noise Insulation Standards related to interior noise levels.

County Zoning Ordinances

The County's Land Use and Development Code (LUDC) and Article II, Coastal Zoning Ordinance (CZO) of the Santa Barbara County Code (Chapter 35) are applicable to the Project area and carry out the policies of the Comprehensive Plan by classifying and regulating the uses of land and structures within the inland and coastal areas of the county, consistent with the Comprehensive Plan. These County codes are adopted to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the county. The LUDC and CZO establish various standards for regulating noise or noise exposure which are applicable to development within specific zones or zones located within overlay areas.

County of Santa Barbara Nighttime Noise Ordinance

Under Chapter 40 of the County Code, loud and unreasonable amplified noise is prohibited in the unincorporated area of the county during any of the following periods: 1) The night and following morning of any Sunday, Monday, Tuesday, Wednesday, or Thursday between the hours of 10:00 P.M. and 7:00 A.M. the following morning; or, 2) the morning hours after midnight of any Friday or Saturday, between midnight and 7:00 A.M. the following morning.

County of Santa Barbara Grading Code

Chapter 14 of the County Code is the Santa Barbara County Grading Code (Ord. No. 4766, 11-9-2010). The regulations, conditions, and provisions of this chapter constitute minimum standards and procedures necessary to protect and preserve life, limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, location, and maintenance of grading, drainage, erosion, and sediment control when required by these regulations within the County. The regulation of construction activities under this chapter also regulates construction-related noise. Though Chapter 14 does not specify noise level limits, Section 14-22 restricts grading work (except emergency operations) to take place between the hours of 7:00 A.M. and 7:00 P.M., unless the County finds that such operations are unlikely to cause significant public nuisance or must, by necessity, be accomplished at other times and authorizes such night operations in writing.

3.9.4 Environmental Impact Analysis

This section discusses the potential noise impacts associated with the proposed Project. Where there are potentially significant or significant and unavoidable impacts, mitigation measures are proposed and the residual impact after mitigation is determined.

3.9.4.1 Thresholds of Significance

California Environmental Quality Act Guidelines

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant impact on the environment if it would:

a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b) Generate an excessive groundborne vibration or groundborne noise levels.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would expose people residing or working in the project area to excessive noise levels.

County of Santa Barbara Environmental Thresholds and Guidelines

The CEQA Guidelines (Appendix G) criteria are expanded and made more specific in the County's noise thresholds contained in the County's *Environmental Thresholds and Guidelines Manual*. The County's thresholds are intended to be used with flexibility because each project must be viewed in its specific circumstances. The following noise thresholds will be applied in the impact analysis for determining significance of noise impacts for the proposed Project:

a. A proposed development that would generate noise that would cause the existing exterior noise levels experienced by the sensitive receptors that is below 65 dBA CNEL, to exceed 65 dBA CNEL – either individually or cumulatively.[3]

b. If existing exterior noise levels, including at outdoor living areas, experienced by sensitive receptors exceeds 65 dBA CNEL, and a proposed development that would generate noise that will cause the existing noise levels experienced by the sensitive receptors to increase by 3 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources.

c. If existing noise levels experienced by sensitive receptors in interior livings areas is below 45 dBA CNEL, and the proposed project would generate noise that will cause the existing noise levels experienced by the sensitive receptors in interior living areas to exceed 45 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources.

d. If existing noise levels experienced by sensitive receptors in interior livings areas exceeds 45 dBA CNEL, and the proposed project would generate noise that would cause the existing noise levels experienced by the sensitive receptors in interior living areas to increase by 3 dBA CNEL – either individually or cumulatively when combined with other noise-generating sources.

e. Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals or care facilities, would generally result in a potentially significant impact. According to USEPA guidelines, average construction noise is 95 dBA[4] at a 50-foot distance from the source. A 6 dB drop typically occurs with a doubling of the distance from the source. Therefore, locations within 1,600 feet of the construction site would be affected by noise levels over 65 dBA.[5] To mitigate this impact, construction within 1,600 feet of sensitive receptors shall be limited to weekdays between the hours of 8:00 A.M. to 5:00 P.M. only. Noise attenuation barriers and muffling of grading equipment may also be required. Construction equipment generating noise levels above 95 dBA may require additional mitigation.

Methodology

Anticipated construction sound levels were estimated and analyzed based on projected construction vehicle requirements, distance between sensitive receptors and construction activities, and proposed daytime operational levels. Standard noise generation levels for typical construction equipment were used to estimate construction sound levels.

[3] This threshold pertains to long-term operational noise.

[4] These noise levels represent L_{eq} measurements, not CNEL day-night averages.

3.9.4.2 Project Impacts

Insignificant Impacts

Project components would not introduce any new sources of operational noise. Additionally, the proposed Project is not located within the vicinity of a private airstrip, an airport land use plan, or two miles of a public airport or public use airport.

CEQA Noise Threshold (a) (*Produce a substantial permanent increase in ambient noise levels*): The proposed Project would repair and restore the 1983 design of the existing 3,700-foot-long shoreline protection device by placing new armor rock, raising the crest elevation of the revetment, adjusting the seaward slope of the revetment, and widening the crest. The proposed Project would improve the revetment's ability to protect properties from coastal hazards by restoring the level of shoreline function to current coastal engineering standards with the ability to adapt to sea level rise (SLR) hazards. There is no operational component to the proposed Project, and noise produced from construction and/or future maintenance would be temporary in nature, lasting for a period of 6 to 7 months. As such, the proposed Project would not produce a permanent increase in ambient noise levels.

CEQA Noise Threshold (c) (*Produce excessive noise within an airport land use plan or within two miles of a public airport*): The Project site is not located within an airport land use plan or within two miles of a public airport.

CEQA Noise Threshold (c) (*Produce excessive noise within the vicinity of a private airstrip*): The Project site is not in the vicinity of a private airstrip.

Impacts

Table 3.9-6 provides a summary of the proposed Project's impacts related to noise. A detailed discussion of the impact follows.

Table 3.9-6. Summary of Noise Impacts

Noise Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact NOI-1. The proposed Project could result in short-term temporary increases in noise and groundborne vibration from construction and maintenance-related activities.	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact NOI-1. The proposed Project could result in short-term temporary increases in noise and groundborne vibration from construction and maintenance-related activities.

As described in Chapter 2, *Project Description*, the proposed Project would involve the repair and restoration of the 1983 design condition along the entirety of the revetment's 3,700-foot length and minor re-working of the revetment, using new armor rock to fill voids in the revetment, correct low-points and reduced width in the revetment crest, and address areas where existing armor rock has been dislodged. Future maintenance activities of the revetment would include refilling voids within the revetment that would require import of new armor rock approximately every 10 years. In addition to the repair activities, the proposed Project would include the installation or establishment of new

dune vegetation. Implementation of the dune vegetation feature would involve the removal of approximately 1.5 acres of existing non-native vegetation (e.g., ice plant) along the splash wall and swale, and the planting of native dune vegetation in selective areas along the length of the splash wall. The proposed Project would also include improvements to coastal access across the repaired revetment through the creation of access pathways and private stairways.

Construction-related Noise

Temporary construction-related noise would be generated from the import of rock, repair of the seawall, the installation of dune vegetation, and improvements to coastal access. These activities would generate temporary onsite noise from heavy construction equipment (see Table 3.9-7) and stationary construction equipment (e.g., generators) as well as off-site noise from haul trucks, concrete trucks, and construction worker commutes. This effect is likely to be greatest along Sand Point Road, which provides access to the Project site, and the beach fronting Sand Point Road, where the revetment would be repaired.

As shown in Table 3.9-4, the noise level associated with heavy construction equipment typically ranges from about 80 dBA to 85 dBA at 50 feet from the source. Project construction would take place over a period of approximately 6 to 7 months. Construction work would primarily occur between the hours of 7:00 A.M. and 7:00 P.M.; however, nighttime work may be necessary to work during lower tides. Not all construction equipment would be operated simultaneously. Peak sound levels associated with construction equipment would occur sporadically throughout the workday.

Table 3.9-7. Noise Ranges of Typical Construction Equipment

Construction Equipment	Specification L_{max} (dBA) at 50 feet	Actual Measured L_{max} (dBA) at 50 feet (Measurements Averaged)
Excavator	85	81
Front-End Loader	80	79
Dump Trucks	84	76
Concrete Mixer Truck	85	79

Source: FHWA 2006.

The County's *Thresholds and Guidelines Manual* addresses construction noise and identifies typical restrictions to help reduce potential impacts. As described in Section 3.9.3, *Regulatory Setting*, these Guidelines consider noise impacts from grading and construction to be potentially significant to any sensitive receptor located within 1,600 feet of the noise source. This threshold is based on USEPA guidelines that average construction noise is 95 dBA at a distance of 50 feet from the source. A 6 dB drop occurs with a doubling of the distance from the source. Therefore, locations within 1,600 feet of the construction site would be affected by noise levels over 65 dBA.

As shown in Table 3.9-7, noise levels associated with individual pieces of equipment would generally be less than 95 dBA at a distance of 50 feet from the source. However, construction activities would likely entail the use of up to two track-mounted long-reach excavators, two front-end loaders, and numerous haul trucks for the import of armor rock and sand and concrete trucks for construction of the stairs. In the event that multiple pieces of equipment are located in close proximity to one another, additive noise levels could still expose sensitive receptors to noise levels over 65 dBA at a distance of 1,600 feet or less.

Sensitive receptors affected by the proposed Project would include the 25 residences located immediately adjacent to the Project site along Sand Point Road (e.g., within 30 to 130 feet of the existing revetment) as well as the residences located to the northwest in the Casa Blanca Beach Estates neighborhood (e.g., with the closest residence approximately 80 feet from the Project site). Given that these sensitive receptors would be located within 1,600 feet of construction activities, and would experience average noise levels exceeding 65 dBA during construction, impacts would be considered potentially significant.

To mitigate construction-related impact, the County's *Thresholds and Guidelines Manual* requires that construction within 1,600 feet of sensitive receptors be limited to weekdays between the hours of 8:00 A.M. to 5:00 P.M. only. Construction activities associated with the proposed Project would primarily occur between the hours of 7:00 A.M. and 7:00 P.M.; however, work outside of these hours may be necessary based on tidal conditions. Given the physical conditions within the Project site (e.g., tides, wave action, etc.) it would be infeasible to limit construction activities from 8:00 A.M. to 5:00 P.M. without major disruptions to the schedule, extending the total duration well beyond 6 to 7 months. Additionally, the construction of temporary noise attenuation barriers along the revetment would also be infeasible due to the windy conditions (as well as potential wave action) along the exposed coastline. MM NOI-1 would minimize noise to the maximum extent practicable requiring functioning and properly maintained muffler systems, including intake silencers. Additionally, MM NOI-2 would require that stationary construction equipment and rock dumping areas within the construction staging and materials laydown areas (located at 865 Sand Point Road and 501 Sand Point Road at the northwestern and southeastern extents of the Project site, respectively) be appropriately shielded by the contractor and/or construction crews.

Off-site noise and groundborne vibration associated with haul truck and concrete truck trips would be minimal. As described in Section 2.3.3, *Project Construction*, rock would be imported to the Project site over a period of 3.5 months, requiring up to 1,500 roundtrip haul truck trips or approximately 15 trips per day. As previously described, there are no additional sensitive receptors along the southbound haul route. While there are a limited number of sensitive receptors along the northbound haul route (i.e., along Santa Claus Lane), these sensitive receptors are located within 100 feet of Hwy 101 and/or UPRR and already experience noise levels of 80 dBA. The addition of up to 15 haul truck trips per day would have an insignificant impact on ambient noise levels.

Maintenance-related Noise

Temporary and periodic noise would also be produced from near-term and long-term maintenance activities. Maintenance activities would be anticipated to occur every 10 years or on an emergency as-needed basis in the event of severe storms and damage to the revetment. Typical long-term maintenance activities are estimated to require import of up to an additional 5,000 tons of armor rock, which would be a third of would be required for the initial repair. Therefore, while noise produced from maintenance activities would be similar to the construction noise described for the initial repair, the duration of noise would be expected to be reduced from a duration of 6 to 7 months to a duration of 2 to 3 months.

The proposed Project also includes allowance for future SLR adaptation measures (e.g., additional rock import of up to 41,000 tons to raise the crest elevation to accommodate SLR of up to 2.8 feet). As with the near-term and long-term maintenance activities, noise produced from the implementation of future SLR adaptation measures would be similar to the construction noise described for the initial repair, the duration of noise would be expected to be increased from a duration of 6 to 7 months to a duration of nearly 2 years.

Ground-borne Vibration Associated with Construction Equipment

Potential vibration levels are identified for on- and off-site locations that are sensitive to vibration, including residences and schools. The PPV at sensitive uses can be determined with the following equation from the Caltrans Vibration Guidance Manual (2013):

$$PPVEquipment = PPVRef (25/D)^n$$

Where: PPVEquip = vibration at a specified distance from equipment, PPVRef = Reference PPV at 25 feet, n = attenuation rate through ground (assumed to be 1.3 for competent soils), and D = distance from equipment to the receiver in feet.

The VdB at sensitive uses can be determined with the following equation from the FTA's Transit Noise and Vibration Impact Assessment Manual (2018):

$$Lv (D) = Lv (25 feet) – 30Log(D/25)$$

Where: Lv = vibration level of equipment, D = distance from the equipment to the receiver, Lv (25 feet) = vibration level of equipment at 25 feet.

According to the FTA, the vibration levels from a bulldozer (representative of the proposed construction equipment) are 0.089 PPV and 87 VdB at 25 feet. This was attenuated for distance to the nearest sensitive receptors located at a distance of approximately 60 feet from the toe of revetment at the northwestern end of the Project site. At this distance the bulldozer operations would result in a PPV of 0.029 and VdB of 76. These vibrations would be perceptible when heavy construction equipment is operating at the nearest sensitive receptor (refer to Table 3.9-3 and -4), but these activities would be short-term and temporary, occurring at this distance for only a matter of days at most. Additionally, groundborne vibration at these levels would not have the potential to result in structural damage (refer to Table 3.9-5). Potential groundborne vibration from haul trucks and concrete trucks along Santa Claus Lane would be intermittent. As previously described, rock would be imported to the Project site over a period of 3.5 months, requiring up to 1,500 roundtrip haul truck trips or approximately 15 trips per day. However, these sensitive receptors are located immediately adjacent to the UPRR and groundborne vibration associated with these truck trips would not exceed ambient levels associated with passing trains at a distance of less than 50 feet. Overall, potential impacts associated with groundborne vibration would be considered insignificant.

3.9.4.3 Cumulative Impacts

The proposed Project is not expected to result in any long-term changes to the existing noise environment. While construction activities associated with the proposed Project have the potential to overlap with other temporary construction projects within the vicinity such as home remodels or public infrastructure projects (e.g., water line or sewer line replacements), the proposed Project would not contribute to any long-term changes in the ambient noise environments or cumulative noise impacts.

3.9.4.4 Proposed Mitigation

MM NOI-1. Muffler Systems for Mobile Construction Equipment. All mobile source construction equipment, including haul trucks and concrete trucks, shall be equipped with functioning and properly maintained muffler systems, including intake silencers.

Requirements and Timing: County Public Works shall confirm that this noise mitigation measure shall be printed on all construction plans and/or specifications and discussed during the pre-construction meeting(s).

Monitoring: County Public Works shall check plans and attend the pre-construction meeting(s) to confirm that this noise mitigation measure is readily understood by the contractor and/or construction crew. County Public Works compliance monitoring staff shall also spot-check in the field throughout construction activities.

MM NOI-2. Noise Shielding for Stationary Construction Equipment and Rock Dumping Areas. Stationary construction equipment and rock dumping activities within the construction staging and materials laydown area, which would generate noise levels that exceed 65 dBA, shall be shielded with appropriate acoustic shielding to the satisfaction of County Public Works.

Requirements and Timing: County Public Works shall confirm that this noise mitigation measure shall be printed on all construction plans and/or specifications and discussed during the pre-construction meeting(s).

Monitoring: County Public Works shall check plans and attend the pre-construction meeting(s) to confirm that this noise mitigation measure is readily understood by the contractor and/or construction crew. County Public Works compliance monitoring staff shall also spot-check in the field throughout construction activities.

3.9.4.5 Residual Impacts

Impact NOI-1. Implementation of MM NOI-1 and MM NOI-2 would reduce noise levels to the maximum extent practicable. However, given that sensitive receptors immediately adjacent to the Project site would experience noise levels over 65 dBA, impacts would exceed the thresholds identified in the County's *Thresholds and Guidelines Manual* and would be considered *significant and unavoidable*.

Section 3.10
Recreation

3.10.1 Introduction

This section describes the affected environment and regulatory setting for recreation, describes the potential for impacts on recreation that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and identifies mitigation measures to reduce identified impacts where possible. The information and analysis in this section is based on information in previous studies and Environmefntal Impact Reports (EIRs) prepared by the County of Santa Barbara (County), the County's Coastal Land Use Plan (CLUP), and the Santa Barbara County Comprehensive Plan. The impact determinations are based on consistency with the California Environmental Quality Act (CEQA) thresholds and the County's existing policies and regulations related to recreation.

3.10.2 Environmental Setting

As described in Chapter 2, *Project Description*, the Project site is located on the coastline of southeast unincorporated Santa Barbara County, approximately 1.1 miles west of the City of Carpinteria. The Project site itself is located within the Carpinteria Valley Planning Area, as identified in the Santa Barbara County's CLUP. The Carpinteria Valley Planning Area is a long, narrow coastal plain that parallels the shoreline and the Santa Ynez mountains and encompasses land overlapping the Coastal Zone. Recreation within Carpinteria Valley includes open spaces such as the Carpinteria Bluffs, coastal access and beaches, trails, public parks, and privately-owned recreational facilities. For a complete list of park and recreation facilities within the Carpinteria Valley Planning area, see Table 3.10-1.

Table 3.10-1. Park and Recreation Facilities

Park – Recreation Facility	Size (acres)	Description	Jurisdiction / Managing Agency
Carpinteria State Beach	84.0	State beach and campground, located along the shoreline of Carpinteria. Includes 262 overnight campsites, picnic areas, beach area, tidepools, swimming, surfing, and Chumash Indian interpretive displays.	State Parks
Lions Park	3.0	Private facility, used by reservation only. Includes barbecues, tables, volleyball, playground, and horseshoe pit.	Private
Los Padres National Forest	---	The National Forest surrounds the Planning Area to the north of the City and provides hiking trails and camping facilities.	U.S. Forest Service
Rincon Beach Park	9.4	County facility located to the south of Carpinteria, includes shoreline, rocky beach, passive recreational park, restrooms, parking lot and picnic tables.	County

Table 3.10-1. Park and Recreation Facilities (Continued)

Park – Recreation Facility	Size (acres)	Description	Jurisdiction / Managing Agency
Santa Barbara Polo Field	48.0	Privately owned club has riding ring, stables, three polo fields, polo clubhouse, eight tennis courts, tennis clubhouse, tennis swimming pool, 112 condominiums.	Private
Santa Claus Lane Beach	5.91	County beach area, with unofficial coastal access to public beach use area. No facilities or parking lot.	County
Toro Canyon Park	74.0	County Park, including ball fields, picnic facilities, barbecues, playground areas, and equestrian facilities.	County
Carpinteria City Beach	6.0	Under City jurisdiction, includes a parking lot, restrooms, seasonal lifeguards, and boating access.	City of Carpinteria
El Carro Park	8.3	Includes playing fields (i.e., baseball, soccer, football, bleachers), a parking lot, restrooms, playground equipment, and barbeques.	City of Carpinteria
Memorial Park	1.91	Passive recreation park with playground, picnic tables, and barbeques.	City of Carpinteria
Heath Ranch Park	2.26	Passive recreation park with playground, picnic tables, a Russell Heath Adobe landmark #2, and a historic eucalyptus grove.	City of Carpinteria
Franklin Creek Park	1.1	Passive recreation park with swings, located at the south terminus of Franklin Creek hiking and biking trail.	City of Carpinteria
Monte Vista Park	3.97	Passive recreation park with playground equipment, picnic tables, and a 20-station exercise/jogging “gamefield” course.	City of Carpinteria
Historic Marker Park	0.25	Landscape area with State Historic Landscape Plaque.	City of Carpinteria
Tar Pits Park	8.79	Beachfront bluff natural area with passive recreation area for hiking, biking and viewing the ocean.	City of Carpinteria
Salt Marsh	7.0	Natural Open Space with a trail, overlook and amphitheater.	City of Carpinteria
Linden Field	5.0	City-maintained and State-owned multi-purpose turf area.	City of Carpinteria
Thunder Bowl Roller Hockey Rink	0.5	Located at City Hall.	City of Carpinteria
Carpinteria Bluffs Nature Park	52.88	Natural open space with a coastal overlook and multi-use turf area.	City of Carpinteria

Public Beaches and Public Beach Access

The public beaches within Carpinteria Valley’s coastline are maintained by the City of Carpinteria, County, and State Parks and are each heavily used with over one million visitors estimated annually.

The coastline supports a range of recreational uses, including surfing, swimming, walking, sunbathing, and nature study. The planning area is bordered by Rincon Point to the east and Loon Point to the west. Immediately to the west of Rincon Point is the County's Rincon Beach Park, which provides parking, beach access, and limited facilities (e.g., bathrooms). Carpinteria State Beach Park, the primary recreation facility in the area, is located in the City of Carpinteria and extends from Linden Avenue to just east of K Street. The State Beach offers tent and RV camp sites, restrooms, indoor and outdoor showers, and a visitor center that hosts learning activities, guided tours, and interpretive exhibits. Carpinteria City Beach, run by the City of Carpinteria, provides wide sandy beach use for sunbathers, recreational activities, and safe swimming access to local, regional, and national visitors. The City of Carpinteria owns approximately 0.3 miles of the total 20.4 miles of publicly-owned beaches across the County. The County has jurisdiction over granted tidelands and submerged lands in two areas of Carpinteria's coastline: Sandyland Cove, which extends from the mouth of Santa Monica Creek to the City's western limits, and the coastline from the City's eastern boundary to the County line; the Project site is located along this stretch of coastline.

Although the County of Santa Barbara has many public beaches, much of the South Coast lacks formal beach access points. In the unincorporated portion of Carpinteria Valley, existing opportunities for beach access and recreation are limited to the County Park at Rincon Point, Carpinteria State Beach, and Carpinteria City Beach. Loon Point provides the only open public beach access west of the Project site and within the planning area. Loon Point provides a parking lot on the north side of Padaro Lane with a trail access to the beach and a nearby Monarch butterfly roosting area. The County also maintains two more beach access points in Summerland.

In the two miles of beach frontage, which encompasses the coastline from the mouth of Carpinteria Salt Marsh to Padaro and Santa Claus Lanes, there is no existing dedicated open public beach access. This stretch of coastline, where the Project site is also located, has been gradually obstructed by development of private and gated coastal properties. Many properties fronting the beach in the planning area have seawalls and some of these seawalls project out far enough that lateral access is impaired during high tide. Substantial informal (i.e. not dedicated/protected) public access occurs by crossing the Union Pacific Railroad tracks and seawall at the western end of Santa Claus Lane. Some informal roadside parking exists in this area.

Padaro Lane: The 1.5 miles of sandy beach frontage west of Santa Claus Lane beaches are obstructed at all but the lowest tides by an artificial headland consisting of several single-family homes surrounded by a major seawall. Some of the homes in the Padaro Lane area were granted permits to build under the condition that access to the beach would be offered to the public via vertical easements to and/or horizontal easements along the beach. One existing public vertical access easement within the Padaro Lane area is open to the public and has coastal access signage. Several discontinuous informal parking spaces exist on the north side of the road along Padaro Lane between Garrapata Creek and Toro Creek. Parking on the shoulder north of the road is extremely constrained east of Arroyo Paredon due to an open drainage channel and landscaping. Traveling westward, the shoulder widens and many parallel and perpendicular parking space areas approximately fifteen feet wide exist. Approximately 15 to 20 spaces are developed between the residences of 3200 to 3300 Padaro Lane.

Santa Claus Lane: This area is extensively used by the public, although no official beach access easement exists and roadside parking is limited. Currently public access occurs by crossing the Union Pacific Railroad tracks and climbing over large seawall rocks at the western end of Santa Claus Lane. No crossing guards or signals exist to caution beach-goers of approaching trains, and traversing the

seawall can be difficult. However, an official beach access route over the railroad tracks is currently under development. The Santa Claus Lane Pedestrian At-Grade Rail Crossing Plan Project has been awarded and will be under construction in the Summer of 2026.

The closest public beach access areas to the Project site include Loon Point (to the northwest) and Carpinteria City Beach (to the southeast). The Project site is located seaward to 25 private residencies located within a gated community and Padaro Lane just south of Santa Claus Lane Beach. These homes can only be accessed by residents of the community and their guests. Coastal access for private residents is predominantly through the use of the 23 existing private access stairways located perpendicular to the shoreline along the revetment.

The beach area fronting the Project site has significantly limited public access; members of the public that do not have access to the private gated community (as previously described) can access the beach laterally from Santa Claus Lane or Carpinteria City Beach. However, ease of access to the Project site is often complicated by the existing revetments that project out far enough to impair lateral access, except during periods of very low tide (e.g., King Tide) as well as the tidal inlet to the Carpinteria Salt Marsh. Another point of access to the beachfront occurs from the Pacific Ocean (e.g., by boat, kayak, paddleboard, or swimming, etc.), but is still dependent on the intertidal zone conditions.

California Coastal Trail

The California Coastal Trail (CCT), which is a network of public trails for walkers, bikers, equestrians, and others along the 1200-mile California coastline. The surrounding vicinity of the Project site overlaps with Santa Barbara Section 11 and 12 of the trail. Section 11 begins at Lookout County Park and ends at Carpinteria State Beach. The route follows an isolated beach at the base of high bluffs before entering the flat landscape of Carpinteria Valley where it follows the beach if tides allow. It then falls along the road shoulder through the small residential and commercial settlement of Santa Claus Lane. From there, the trail continues onto the Santa Claus Lane Bikeway, a new 0.6-mile Class I multipurpose path that connects Santa Claus Lane to Carpinteria Avenue. Once the CCT meets the City of Carpinteria, the route then follows city streets back to the Carpinteria State Beach, where Section 12 of the trail begins. Section 12, the final section of the Santa Barbara segment of the CCT, begins at the Carpinteria State Beach and then passes through the Carpinteria Bluffs (Coastwalk/California Coastal Trail Association 2025).

3.10.3 Regulatory Setting

State and local laws and regulations have been enacted to ensure adequate provision of recreational facilities in the county. There are no Federal regulations that apply to the proposed Project.

3.10.3.1 State

California Coastal Act

The California Coastal Act (§30000 et seq), Coastal Resources Planning and Management Policies, include provisions (§30210 – 30223) for the protection and management of public access and coastal recreational resources. The Coastal Act policies concerning recreational resources that are relevant to the proposed Project are listed below:

Coastal Act § 30210: In carrying out the requirements of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities

shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act § 30211: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act § 30212(a): Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,

(2) Adequate access exists nearby, or,

(3) Agriculture would be adversely affected.

Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Coastal Act § 30213: Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Coastal Act § 30214(a): The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

Coastal Act § 30221: Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Coastal Act § 30223: Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

3.10.3.2 Local

Santa Barbara County Comprehensive Plan

The County Comprehensive Plan (inclusive of all mandatory and optional elements) is a planning document including research, analyses, and goals to enable the Santa Barbara County Board of Supervisors and Planning Commissioners to determine matters of priority more effectively in the allocation of resources and to achieve the physical, social, and economic goals of the unincorporated communities within the county. The Comprehensive Plan contains a variety of policies related to recreation. The following components of the Comprehensive Plan relate to recreational resources and are most applicable to the proposed Project.

Land Use Element

The Land Use Element is comprised of a variety of research findings, Advisory Committee goals and policies, and proposals from the other Comprehensive Plan Elements. The purpose of this element is to interrelate all of the distinct factors that affect population growth, urban development, and open land preservation and to represent the County's policy on land use. The Land Use Element contains the following policies that are applicable to the proposed Project:

Parks and Recreation Policy 6: When proposed development can establish connections for public use with or between existing bikeways, pedestrian routes, and other trail infrastructure, it shall include them in the project design where feasible and to the extent allowable by law. These connections are intended to promote healthy communities by increasing walkability, multi-modal transportation, neighborhood connectivity to and between commercial services, and public recreational opportunities. Projects that are 100 percent affordable (excluding the manager's unit) shall be encouraged to establish such connections or provide necessary easements.

Open Space Element

The Open Space Element of the County's Comprehensive Plan discusses designated regions within the county that should remain open space and the reasons why. The reasons for designation of open space are for public health and safety, for the managed production of resources, for outdoor recreation, and for the preservation of natural resources. Open space for public health and safety includes consideration of fire hazard areas.

Santa Barbara County Local Coastal Program

The Local Coastal Program (LCP), which first came into effect in 1982, contains principal land use policies for development within the coastal zone in Santa Barbara County; it has since been updated multiple times. The LCP is made up of the Santa Barbara County Coastal Land Use Plan (LUP) and implementation program, including zoning, and is designed as a separate coastal element to the County's General Plan under the California Government Code Section 65303(k). This program, pursuant to requirements of the California Coastal Act (Section 30108.5), contains the relevant portion of a local government's general plan, or local coastal element, which indicates the kinds, location, and intensity of land uses, the applicable resource protection and development policies, and a listing of implementing actions. Where conflicts between policies set forth in the certified LCP and those set forth in any element of the Santa Barbara County Comprehensive Plan, the LCP shall take precedence for those areas located within the coastal zone.

Article II, Coastal Zoning Ordinance

The County's LCP includes the Land Use Plan, zoning district maps applying to the Coastal Zone, and a zoning ordinance (which is the Article II, Costal Zoning Ordinance [CZO] itself). The purposes of the Article II CZO are to protect, maintain, and, where feasible, enhance and restore the overall quality of the Coastal Zone; assure orderly and balanced utilization of Coastal Zone resources; maximize public access to and along the coast, as well as public recreational opportunities; assure priority for coastal-dependent and coastal-related development over other development on the coast; and protect the character and stability (social and economic) of agricultural, residential, commercial, and industrial areas. The following policies outlined in Sections 35-61, *Beach Development,* Sections 35-62, *Recreation and Visitor Serving Uses,* and Section 35-169, *Coastal Development Permits* of the CZO pertain to potential recreational impacts resulting from the proposed Project:

Section 35-61. *Beach Development*

1. To avoid the need for future protective devices that could impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers, or where such restriction would cause the inverse condemnation of the lot by the County.

Section 35-169.5. *Coastal Development Permits*

1. A Coastal Development Permit application that is subject to Section 35-169.4.2 above, shall be approved or conditionally approved only if the decision-maker first makes all of the following findings:

   (b) The development will not significantly obstruct public views from any public road or from a public recreation area to, and along the coast.

   (d) The development will comply with the public access and recreation policies of this Article and the Comprehensive Plan including the Coastal Land Use Plan.

Santa Barbara County Coastal Land Use Plan

The CLUP lays out the general patterns of development throughout the coastal areas of the county. Its purpose is to protect coastal resources, provide greater access and recreation opportunities for the public's enjoyment, while allowing for orderly and well-planned urban development and the siting of coastal-dependent and coastal-related industry. The plan incorporates, to the maximum possible extent, local plans and policies which are consistent with the Coastal Act. The following policies are relevant recreational impacts resulting from the proposed Project:

Hazards: *Seawalls and Shoreline Structures*

Policy 3-2: Revetments, groins, cliff retaining walls, pipelines and outfalls, and other such construction that may alter natural shoreline processes shall be permitted when designed to eliminate or mitigate adverse impacts on local shoreline sand supply and so as not to block lateral beach access.

Coastal Access and Recreation:

Policy 7-1: The County shall take all necessary steps to protect and defend the public's constitutionally guaranteed rights of access to and along the shoreline. At a minimum, County actions shall include:

(a) Initiating legal action to acquire easements to beaches and access corridors for which prescriptive rights exist consistent with the availability of staff and funds;

(b) Accepting offers of dedication which will increase opportunities for public access and recreation consistent with the County's ability to assume liability and maintenance costs;

(c) Actively seeking other public or private agencies to accept offers of dedications, having them assume liability and maintenance responsibilities, and allowing such agencies to initiate legal action to pursue beach access.

Carpinteria Valley Planning Area: The Project site is located within the Carpinteria Valley Planning Area in an unincorporated area of Santa Barbara County, 1.1 miles west of the City of Carpinteria.

Policy 7-8: Increased opportunities for beach access shall be provided in the Carpinteria planning area.

Santa Barbara County Land Use and Development Code

The County Land Use Development Code (LUDC; Chapter 35.20 through 28) carries out the policies of the Comprehensive Plan by classifying and regulating the uses of land within the County. Additionally, the Montecito Land Use Development Code (MLUDC), as well as the CZO, carry out the policies of the Comprehensive Plan by classifying and regulating the use of land per the Montecito Community Plan Area and the CLUP, respectively. While land use designations characterize the physical uses and the intensity of that use, zoning designations legally define permitted uses and development guidelines for those uses. In the unincorporated areas, recreational uses and open spaces are designated under the Recreation (REC) zoning designation, which is applied to provide public or private open space areas that are appropriate for various forms of outdoor recreation, consistent with the Land Use Element. Zoning for planned development also provides a regulatory framework for park exactions and acquisitions as part of private property development in the County.

3.10.4 Environmental Impact Analysis

This section discusses the potential impacts to recreation associated with the proposed Project. Where there are potentially significant or significant and unavoidable impacts, mitigation measures are proposed or described where they are infeasible and the residual impact after mitigation is determined.

3.10.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For the purposes of the EIR, implementation of the proposed Project may have significant adverse impact relating to recreation if it would:

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

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Santa Barbara County Thresholds and Guidelines

The County's *Environmental Thresholds and Guidelines Manual* does not provide any thresholds for significant impacts to parks or recreation. Instead, the County relies on analysis and consideration of impacts with regard to significance criteria for these resources based on CEQA Guidelines, as well as questions from the County's Initial Study Checklist, as follows:

- Would the project conflict with established recreational uses of the area?
- Would the project conflict with biking, equestrian, and hiking trails?
- Would the project result in substantial impacts on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on number of people, vehicles, animals, etc., which might safely use the area)?

Further, the County Board of Supervisors has also established a minimum standard ratio of 4.7 acres of public parkland per 1,000 residents in the 1980 Land Use Element, Recreation Section.

Methodology

This analysis addresses the potential recreation impacts that may result from implementation of the proposed Project. This analysis is supported by the review of the recreational resource significance criteria described above, the importance placed on maintaining and enhancing access to and along the coast in State regulations and County policy, and recreation data and facility information, including adopted plans, public databases, and recent studies, from the surrounding settings. This analysis also incorporates information from the *Coastal Hazards Assessment*, conducted by Moffatt and Nichol, for the proposed Project. The study details potential long-term fluctuation of the shoreline at the Project site, along with data surrounding purposed sea-level rise projections and potential for coastal flooding. The impact analysis provided below evaluates the impacts on existing recreational facilities or the public's access to such facilities.

3.10.4.2 Project Impacts

Table 3.10-2 provides a summary of the proposed Project's impacts related to recreation. A detailed discussion of each impact follows.

Table 3.10-2. Summary of Recreation Impacts

Recreation Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact REC-1. The proposed Project could impact beach recreation and coastal access during and following the completion of construction activities.	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact REC-1. The proposed Project could impact beach recreation and coastal access during and following the completion of construction activities.

The proposed Project would involve the repair of the existing 3,700-foot-long and approximately 65-feet-wide rock shoreline protection to its 1983 design. Repairs would include crest elevation, slope restoration, and the filling of existing void spaces between the armor rock. The Project site would encompass approximately 5.52 acres along an unnamed beach located between Santa Claus Lane Beach (to the northwest) and the mouth of the Carpinteria Salt Marsh (to the southeast) along Sandyland Cove. The proposed Project would not result in any new development or involve any substantial alteration to existing recreational facilities. Additionally, the proposed Project would not introduce any new permanent residential populations as a result of the revetment repair that would place additional new demand on existing recreational facilities. Thus, the proposed Project would not involve the development or expansion of existing recreational facilities, the construction of which could have a significant impact on the environment, cause an increase in population that would increase the use of recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or result in changes to the existing ratio of public parkland per 1,000 residents in the county.

The proposed Project would, however, potentially affect coastal access to the beach area fronting the Project site, as well as recreational use of the beach area and connections from the beach to the CCT. These issues are discussed in further detail below.

Coastal Access and Recreation

As described in Section 2.2.2, *Project Background and Existing Conditions*, the Sandyland Shoreline Protection Device was originally constructed in 1964 and was comprised of a 3,700-foot-long, steep seaward slope of approximately 1:1 (horizontal;vertical), with a single layer of 2-ton armor stone and a crest elevation of 13.4 feet (relative to the NAVD88 vertical datum). This original 1964 revetment was approximately 20 feet wide on average and had a footprint of approximately 1.70 acres along the beach. Severe winter storms that occurred during the 1982-1983 El Niño caused damage to the original (1964) revetment from the extreme water levels and large waves. In response to these storms, the County Board of Supervisors declared an emergency and the revetment was repaired and improved to comply with more current coastal engineering standard practices. The emergency repairs, which involved the addition of approximately 40,000 tons of rock over (landward and seaward of) the existing (1964) rock revetment, included raising the crest elevation to 16.4 feet (relative to the NAVD88 vertical datum) and widening the revetment crest, with a less steep, 2:1 slope. These improvements resulted in a 65-foot-wide revetment, with a total footprint of approximately 5.52 acres. The proposed Project repairs would not increase the footprint of the existing shoreline protection (i.e., would not impact recreational beach area). Minor repair work was completed in 1994 and 1998 to fill voids and low areas of the revetment with armor stone to maintain its integrity. These minor repairs did not affect the width or overall area of the revetment.

The Sandyland residential neighborhood is a private neighborhood with restricted private access for residents and guests via a security guard and security gate. No existing public access is provided to the revetment or the unnamed beach fronting the residential properties along Sand Point Road. The unnamed beach is generally inaccessible from the north due to an existing rock revetment constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Public access to the beach is only possible from the Pacific Ocean or during periods of very low tides.

Construction activities would require temporary closures of various segments of the beach during the 6- to 7-month construction period, for public safety. These closures would remove lateral public access along the beach that would otherwise be during low tide conditions. Implementation of the proposed Project – including the initial repair activities, near-term and long-term maintenance, and Sea Level Rise (SLR) adaptation measures, if necessary – would not have a substantial impact on coastal access at the Project site. As described in Section 3.10.2, *Environmental Setting*, more readily accessible beaches are located in the immediate vicinity of the Project site. Temporary closure of the unnamed beach fronting the revetment would not increase use of these publicly accessible beaches as the unnamed beach fronting the revetment is generally only used by the residents of the community and their guests. Further, those engaged in water activities (e.g., kayaking, paddleboarding, surfing, swimming, etc.) would generally be unaffected by the proposed construction activities, apart from short-term temporary impacts on views (refer to Section 3.1, *Aesthetics and Visual Resources*).

Over the long-term, the proposed Project would include marginal improvements to coastal access to/from the beach and across the repaired revetment. The proposed Project would dedicate a new 5-foot-wide trail/public accessway providing a publicly accessible connection from Santa Claus Lane to the beach at Sand Point Road. From the intersection of Santa Claus Lane and Sand Point Road, the accessway would follow the road shoulder of Sand Point Road across the Union Pacific Railroad tracks. The accessway would then cross to the west across a vacant area of Assessor Parcel Number (APN) 005-460-038 to connect to private roadway belonging to the Casa Blanca Beach Estates Owners Association on APN 005-600-018. If public access easements were to be dedicated by both HOAs, the County could partner with the HOAs to develop a safe, California Public Utilities Commission (CPUC) compliant at-grade pedestrian rail crossing modeled after the Santa Claus Lane Pedestrian At-Grade Rail Crossing Plan Project (refer to Section 3.0.6, *Cumulative Impacts Analyses*). However this is not part of the proposed Project and thus Sand Point Road would remain a private, gated access road that would limit the ability of the public to access the unnamed beach and these the proposed public access connection from Santa Clause Lane to the beach stairway. Therefore, these beneficial impacts would be *insignificant*.

Access to the California Coastal Trail (CCT)

As previously described, Sections 11 and 12 of the CCT are located in the vicinity of the Project site. The Project site, which is located along the beach just southeast of Santa Claus Lane Beach, does not intersect nor overlap with the CCT. Thus, the proposed Project would not directly affect access along the CCT. During construction and maintenance activities, the frequent ingress and egress of construction equipment and haul trucks might disrupt pedestrian and bicycle use of or access to the CCT. However, disruptions in access would be temporary and occurring only during active construction and maintenance work hours and days. The Project would not result in substantial adverse long-term impacts to the CCT, and potential impacts are considered *insignificant*.

3.10.4.3 Cumulative Impacts

As described in Section 3.0.6, *Cumulative Impact Analysis*, cumulative projects within the County range from recently adopted long-range development plans, such as the 2023-2031 Housing Element Update, to proposed and pending individual development projects, such as the Santa Claus Lane Streetscape Improvements Project.

Development of the proposed Project in conjunction with future projects could potentially result in cumulative recreation impacts associated with the development of new parks, trails, and recreational facilities, growth in population that would increase the use and deterioration of existing recreational

facilities, or conflicts with established recreational uses. As discussed in Impact REC-1, the proposed Project would not result in substantial adverse impacts to recreational facilities. The proposed Project would improve long-term coastal access through the provision of one new public access stairway at a dedicated public access easement, and would result in only temporary closures of the beach area and disruptions to use of and access along the CCT. The nearest cumulative project to the Project site is the Santa Claus Lane Streetscape Improvements Project. Phase I of this project was completed in early 2026, including the establishment of a bicycle path on the north side of Santa Claus Lane. Phase II, which is anticipated to be completed late 2026/early 2027, would not overlap construction activities associated with the proposed Project. Since there is no overlap with the construction activities on Santa Claus Lane, cumulative construction-related impacts to recreational resources in the vicinity of the Project site are not anticipated. Given the proposed Project would not result in significant project-specific impacts to recreational resources and that cumulative pending development is not anticipated which would result in a cumulatively considerable impact, the proposed Project's contribution to cumulative recreation impacts would be *insignificant*.

3.10.4.4 Proposed Mitigation

No mitigation measures are required.

3.10.4.5 Residual Impacts

Impact REC-1. Implementation of the proposed Project would not significantly impact recreation resources. The proposed Project would improve long-term coastal access through the provision of one new public access stairway at an existing dedicated public access easement, and would result in only temporary closures of the beach area and disruptions to use of and access along the CCT. Therefore, residual impacts associated with Impact REC-1 would be *insignificant*.

Section 3.11
Transportation

3.11.1 Introduction

This section describes the affected environment and regulatory setting for transportation. the potential for impacts on transportation that would result from implementation of the proposed Sandyland Shoreline Protection Project (Project), and mitigation measures to reduce identified impacts where possible. The information and analysis in this section is based on information in previous studies and California Environmental Quality Act (CEQA) documents prepared by the County of Santa Barbara (County). These include the Santa Claus Lane Beach Access and Streetscape Improvements Project Final Mitigated Negative Declaration (MND) (2019), Santa Barbara U.S. 101 Comprehensive Multimodal Corridor Plan (2022), and Traffic Assessment for the Santa Claus Lane Streetscape Improvement Project (2019).

3.11.2 Environmental Setting

3.11.2.1 Road Network

The Project site is somewhat isolated between Highway 101 (Hwy 101) to the north and the Pacific Ocean to the south. Between Hwy 101 and the ocean (listed in order from the Hwy to the ocean) is Santa Clause Lane, a bicycle lane, Union Pacific Railroad (UPRR) track, Carpinteria Marsh, Sand Point Road, and the Sand Point Community. The Project site is located between the Sand Point community (25 residential developments) and the Pacific Ocean. The only road in and out of the Sand Point community is Spindrift Lane, which quickly transitions (after approximately 80 feet) to Sand Point Road, a gated private roadway shared by the Casa Blanca Beach Estates northwest of the Project site, where one of the staging areas is located. Figure 3.11-1 shows the aforementioned road network and the proposed haul routes and staging areas that would be used during construction of the proposed Project.

Sand Point Road can only be accessed via Santa Claus Lane, which is just over a half mile, two-lane stretch of road between Padaro Lane and Spindrift Lane/Sand Point Road. It can only be accessed from Hwy 101 or Padaro Lane from Via Real that is just north of the highway. Along Santa Claus Lane there are homes, retail and commercial businesses, and a California Department of Transportation (Caltrans) storage yard (County of Santa Barbara 2019). Parking stalls are also present along Santa Claus Lane in front of the retail locations that are north/west of Spindrift Lane. Santa Claus Lane is included in the Santa Barbara County Association of Government's Santa Barbara U.S. 101 Comprehensive Multimodal Corridor Plan (Santa Barbara County Association of Governments [SBCAG] 2022) to reduce congestion along Hwy 101.

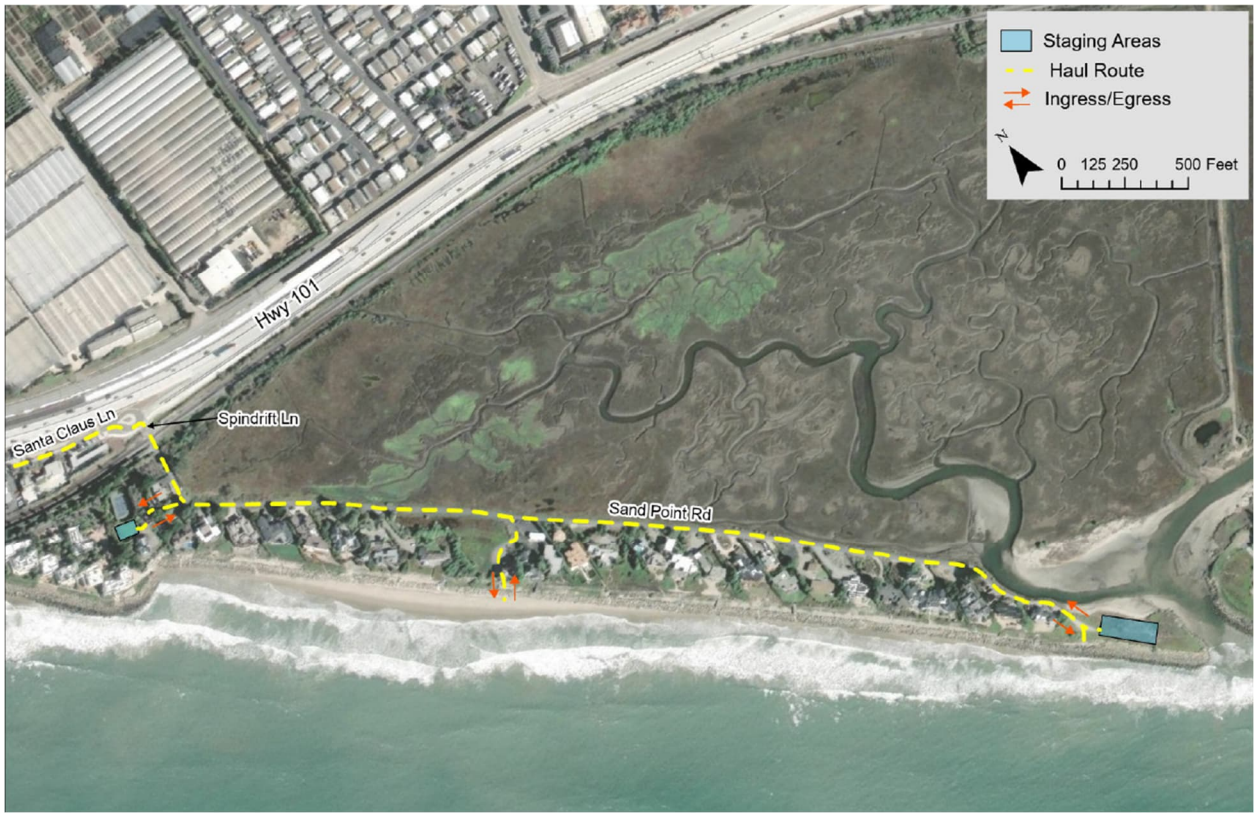


Figure 3.11-1. Road Network and Planned Construction Haul Routes and Staging Areas (Source: Moffatt & Nichol 2025)

A traffic study conducted in 2019 provided roadway conditions for Santa Claus Lane (Associated Transportation Engineers 2019). Santa Claus Lane, along with the ingress and egress points generally provide a Level of Service (LOS) of A and B, meaning that there is unimpeded or minimally restricted traffic.

Table 3.11-1. Existing Roadway Operations (2019)

Roadway Segment	Roadway Classification	Existing ADT	Acceptable Capacity	LOS
Santa Claus Lane east of Padaro Lane	P-3 Roadway	2,950 (weekday) 3,200 (weekend)	10,990 ADT	LOS A LOS A

Table 3.11-2. Existing Intersection Operations (2019)

Intersection/Movement	Weekday PM Peak Delay/LOS	Weekend Peak Delay/LOS
Via Real/Padaro Lane	8.2 Sec/LOS A	10.4 Sec/ LOS B
US 101 NB/Padaro Lane	9.8 Sec/LOS A	7.6 Sec/LOS A
US 101 SB/Padaro Lane/Santa Claus Lane	9.1 Sec./LOS A	8.2 Sec/LOS A
Santa Claus Lane/Spindrift	7.6 Sec/LOS A	7.6 Sec/LOS A

3.11.2.2 Bicycle and Pedestrian Network

As part of the *Caltrans Highway 101: Carpinteria to Santa Barbara Project*, a Class I bikeway[1] was built to connect the California Coastal Trail between Sandpoint Drive and Carpinteria Avenue for bicyclists and pedestrians immediately north of the Project site. The Santa Claus Lane Beach Access and Streetscape Improvements Project will extend the Class I bikeway/multi-use path on the north side of Santa Claus Lane to connect the existing Class II bikeway along Via Real that is northeast of Santa Claus Lane. Phase I of this project was completed in early 2026, including the establishment of a bicycle path on the north side of Santa Claus Lane. Phase II is expected to be completed late 2026/early 2027 (Pers. Communication with County staff, May 28, 2025).

3.11.2.3 Transit

The Santa Barbara Metropolitan Transit District (MTD) runs transit buses throughout Santa Barbara County. Line 20 to Carpinteria serves the area surrounding the Project site. Stop E (Carpinteria and 7th) is less than one mile (0.9 miles) from the Project site and offers pickups between 6:00 A.M. – 10:30 P.M. Monday – Friday, 7:00 A.M. – 10:30 P.M. on Saturdays, and 7:20 A.M. – 8:30 P.M. on Sundays. The Carpinteria Train Station is just over one mile away from the Project Site and provides access to the Pacific Surfliner train service that stops at locations along the coast from San Diego to San Luis Obispo.

3.11.3 Regulatory Setting

The following list summarizes the most applicable policies and regulations as they relate to the proposed Project and associated impacts. There are no Federal regulations that apply to the Project.

3.11.3.1 State

Senate Bill 743 and State CEQA Guidelines Section 15064.3

On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law changing the way transportation impact analysis is conducted under CEQA. Within the CEQA Guidelines, these changes include elimination of auto delay, LOS, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. In December 2018, new CEQA Guidelines implementing SB 743 (CEQA Guidelines Section 15064.3), along with the Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts for CEQA, were finalized and made effective.

CEQA Guidelines Section 15064.3, and the associated OPR Technical Advisory, provide that use of automobile Vehicle Miles Traveled (VMT) is the preferred CEQA transportation metric, and correspondingly eliminate auto delay/LOS as the metric for assessing significant impacts under CEQA State-wide. Under CEQA Guidelines Section 15064.3, State-wide application of the new VMT metric began on July 1, 2020. In response to updates to the CEQA Guidelines and SB 743 to revise criteria for determining what constitutes a significant transportation-related environmental impact and shift

[1] Class I bikeways are multi-use paths or bike paths, are dedicated facilities designed exclusively for the use of bicycles and pedestrians, providing a safe and separated space away from motor vehicle traffic.

from LOS based metrics (i.e., vehicle delay) to VMT, Santa Barbara County approved an amendment to the *Environmental Thresholds and Guidelines Manual*.

3.11.3.2 Local

Santa Barbara County Circulation Element

The County has an adopted Circulation Element (adopted December 1980, last amended October 1992) as part of its Comprehensive Plan (County of Santa Barbara 1992). The Circulation Element provides specific policies related to traffic and transportation implications of proposed development. The element defines standards for roadways and intersections, and project-related traffic increases.

Santa Barbara U.S. 101 Comprehensive Multimodal Corridor Plan

SBCAG has been working with the Caltrans, local agencies, and transit agencies on implementing congestion relief projects throughout County for many years. In 2017 with the passage of SB 1, an opportunity presented itself for SBCAG and Caltrans to leverage existing funding investments in the corridor with additional funding from SB 1 programs. The purpose of the Plan is to find long-term mobility solutions to relieve congestion along the Hwy 101 corridor in Santa Barbara County. This plan is an update of the Hybrid Multimodal Corridor Plan adopted in December 2019. The priority elements of the Multimodal Corridor Plan are adding an high-occupancy vehicle (HOV) lane on Hwy 101, improving transit along the corridor, and providing active transportation improvements. Santa Claus Lane is included in the Plan, specifically for development of a multiuse trail and streetscape improvements.

3.11.4 Environmental Impact Analysis

This section discusses the potential transportation impacts associated with the proposed Project. A detailed discussion of each impact follows. Where there are potentially significant or significant and unavoidable impacts, mitigation measures are proposed and the residual impact after mitigation is determined.

3.11.4.1 Thresholds of Significance

CEQA Guidelines

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For the purpose of this EIR, implementation of the proposed Project may have a significant adverse impact on transportation and circulation if it would:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

b) Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b);

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and/or

d) Result in inadequate emergency access.

Santa Barbara County Thresholds

The County updated its *Environmental Thresholds and Guidelines Manual* to reflect updates to the CEQA Guidelines and SB 743. The amended guidelines describe how to interpret and apply the four transportation threshold questions contained in Appendix G of the CEQA Guidelines and the County's Initial Study Template.

Threshold "a" – Potential Conflict with a Program, Plan, Ordinance, or Policy

The Connected 2050 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) and the County's Comprehensive Plan, zoning ordinances, capital improvement programs, and other planning documents contain transportation and circulation programs, plans, ordinances, and policies. Threshold question "a" considers a project relative to those programs, plans, ordinances, and policies that specifically address multimodal transportation, complete streets, transportation demand management, and other VMT-related topics. The County and CEQA Guidelines Section 15064.3(a) no longer consider automobile delay or congestion an environmental impact. Therefore, threshold question "a" does not apply to provisions that address LOS or similar measures of vehicular capacity or traffic congestion. A transportation impact occurs if a project conflicts with the overall purpose of an applicable transportation and circulation program, plan, ordinance, or policy, including impacts to existing transit systems and bicycle and pedestrian networks pursuant to Public Resources Code (PRC) Section 21099(b)(1). In such cases, applicants must identify project modifications or mitigation measures that eliminate or reduce inconsistencies with applicable programs, plans, ordinances, and policies. For example, some community plans include provisions that encourage complete streets and multi-modal improvements as part of new development. As a result, an applicant for a multifamily apartment complex may need to reduce excess parking spaces, fund a transit stop, and/or add bike storage facilities to comply with a community plan's goals and policies.

Threshold "b" – Potential Impact to VMT

Threshold question "b" establishes VMT as the metric to determine transportation impacts. The County's *Environmental Thresholds and Guidelines Manual* includes project-level impact screening thresholds and VMT thresholds of significance specific to land use projects and land use plans.

The County presumes that projects meeting any of the screening criteria, absent substantial evidence to the contrary, would have less than significant VMT impacts and would not require further analysis. Projects that do not meet any of the screening criteria require an analysis of VMT and the preparation of a VMT transportation study. Screening criteria for land use projects are:

Small Projects: A project that generates 110 or fewer average daily trips;

Locally Serving Retail: A project that has locally serving retail uses that are 50,000 square feet (sf) or less;

Projects Located in a VMT Efficient Area: A residential or office project that is located in an area that is already 15 percent below the county VMT (i.e., "VMT efficient area"). The County's Project-Level VMT Calculator determines whether a proposed residential or office project is located within a VMT-efficient area.

Project Near Major Transit Stop: A project that is located within 0.5 miles of a major transit stop or 0.5 miles of a bus stop on a High Quality Transit Corridor (HQTC). In addition, the project must have a floor area ratio (FAR) of 0.75 or greater, be consistent with the applicable SBCAG SCS (as

determined by the County), provide more parking than required by the County's Comprehensive Plan and zoning ordinances; and not replace affordable housing units (units set aside for very low-income and low-income households) with a smaller number of moderate- or above moderate-income housing units.

Affordable Housing: A residential project that provides 100 percent affordable housing units (units set aside for very low-income and low-income households); if part of a larger development, only those units that meet the definition of affordable housing satisfy the screening criteria.

The County generally uses thresholds of significance to determine the significance of transportation impacts for projects and plans that do not meet any of these screening criteria. The County expresses thresholds of significance relative to existing, or baseline, county VMT. Specifically, the County compares the existing, or baseline, county VMT (i.e., pre-construction) to a project's VMT. Projects with VMT below the applicable threshold would normally result in a less than significant VMT impact and, therefore, would not require further analyses or studies. Nonetheless, CEQA Guidelines Section 15064(b)(2) states, "[c]ompliance with the threshold does not relieve a lead agency of the obligation to consider substantial evidence indicating that the project's environmental effects may still be significant." Projects with a VMT above the applicable threshold would normally result in a significant VMT impact and, therefore, would require further analyses and studies, and, if necessary, project modifications or mitigation measures. The VMT thresholds of significance are for general use and should apply to most projects subject to environmental review. However, the thresholds may not be appropriate for unique projects. In such cases, CEQA Guidelines Section 15064.7(c) allows the County to use other thresholds "…on a case-by-case basis as provided in Section 15064(b)(2)." When using thresholds on a case-by-case basis, the County requires substantial evidence to justify why different thresholds are appropriate.

The County's VMT thresholds for land use plans focus on urban areas because most vehicle trips are generated by urban residential and commercial/industrial development and originate and have destinations within urban areas. The County's VMT thresholds compare the existing, or baseline, county VMT to a plan's VMT. For a land use plan, a VMT impact would occur if the plan's generated total VMT per service population exceeds a level of 15 percent below the existing total VMT per service population for the geographic area. Additionally, a plan's VMT impact would be cumulatively considerable if the plan results in a net increase in total VMT compared to existing conditions. As described in the County's *Environmental Thresholds and Guidelines Manual,* a land use plan could change travel patterns in the region and an efficiency-based threshold may not fully capture such changes. Therefore, the analysis of a land use plan's cumulative impacts should consider the net increase in Total VMT, which would provide a more detailed analysis of all travel in the plan area and region.

Threshold "c" – Design Features and Hazards

Threshold "c" considers whether a project would increase roadway hazards. An increase could result from existing or proposed uses or geometric design features. In part, the analysis should review these and other relevant factors and identify results that conflict with the County's Engineering Design Standards or other applicable roadway standards. For example, the analysis may consider the following criteria:

- The project requires a driveway that would not meet site distance requirements, including vehicle queueing and visibility of pedestrians and bicyclists.

- The project adds a new traffic signal or results in a major revision to an existing intersection that would not meet the County's Engineering Design Standards.
- The project adds substantial traffic to a roadway with poor design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, inadequate pavement structure).
- The project introduces a new use and substantial traffic that would create potential safety problems on an existing road network (e.g., rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use). If a project would result in potential roadway hazards, the applicant would need to modify the project or identify mitigation measures that would eliminate or reduce the potential hazards. For example, an applicant for a retail shopping center may need to shift the location of a new driveway or add sidewalks or pedestrian crossings to reduce potential conflicts between customers and pedestrians.

Threshold "d" – Emergency Access

Threshold "d" considers any changes to emergency access resulting from a project. To identify potential impacts, the analysis must review any proposed roadway design changes and determine if they would potentially impede emergency access vehicles. A project that would result in inadequate emergency vehicle access would have a significant transportation impact and, as a result, would require project modifications or mitigation measures. For example, a project that modifies a street and, as a result, impairs fire truck access, would require modifications or redesign to comply with County and fire department road development standards.

Non-Applicable Thresholds/Insignificant Impacts

The proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. It is also not a growth-inducing activity and would not increase VMT. Material import and truck hauling are discussed in Section 2.3.3, *Project Construction*. Haul trucks and concrete trucks would enter the site at a maximum rate of approximately four per hour over the course of a 12-hour day (7:00 A.M. – 7:00 P.M.), along with 10 passenger vehicles for the construction crew. Even assuming a worst case scenario of overlapping construction activities, the number of trucks entering and existing the Project site would not exceed the 110 maximum daily trips that is considered a small project exempt from requiring VMT screening.

Methodology

The following documents were reviewed to determine baseline traffic information against which the impact analysis was conducted:

- MND for Road Improvements on Santa Claus Lane (County of Santa Barbara 2019)
- Traffic Study conducted in 2019 to support the CEQA documents for the Santa Claus Lane Improvements (Associated Transportation Engineers 2019)
- Santa Barbara U.S. 101 Comprehensive Multimodal Corridor Plan (SBCAG 2022)

Additional information was collected during conversations with County staff. Train schedules were extracted from the Amtrak website (Amtrak 2025).

CEQA Guidelines Section 15130 requires that an EIR discuss cumulative impacts of a project when the project's incremental effects are cumulatively considerable. A "cumulative impact" is an impact that is created as a result of the combination of the proposed project together with other projects causing Project Impacts.

3.11.4.2 Project Impacts

Table provides a summary of the proposed Project's impacts related to potential transportation impacts. A detailed discussion of each impact follows.

Table 3.11-3. Summary of Transportation Impacts

Transportation Impacts	Impact Classification	Mitigation Measures	Residual Significance
Impact TT-1. The proposed Project would result in temporary impacts to circulation associated with short-term construction traffic	Insignificant	No mitigation required	Insignificant
Impact TT-2. The proposed Project would result in temporary hazards associated with heavy construction equipment on narrow roads.	Insignificant	No mitigation required	Insignificant
Impact TT-3. The proposed Project would result in temporary impacts to emergency access	Insignificant	No mitigation required	Insignificant
Cumulative Impacts	Insignificant	No mitigation required	Insignificant

Impact TT-1. The proposed Project would result in temporary impacts to circulation associated with short-term construction traffic

Traffic circulation for the Sand Point and Casa Blanca Beach Estates communities would be adversely affected by truck traffic during construction activities associated with the proposed Project. As previously described, there is only one way in and out of the Project site, via Spindrift Lane/Sand Point Road, which is also the only access point for residents of both communities. It is anticipated that haul trucks would enter and exit Sand Point Road at a maximum rate of four trucks per hour. While one truck is unloading at the beach, others may line up along Sand Point Road (refer to Figure 3.11-1).

As described in Chapter 2, *Project Description,* as part of the proposed Project the contractor and/or construction crews would implement a Traffic Control Plan, approved by the County Resident Engineer, prior to the initiation of construction activities, which would alleviate some of the traffic congestion. The plan would include a limit of four trucks on Sand Point Road at any given time and restrictions on where trucks can wait before they access the Project site. Restrictions would include avoidance of access roads to the Casa Blanca Beach Estates and driveways. With the Traffic Control Plan in place, the impact to circulation within the Sandyland and Casa Blanca Beach Estates communities would be *insignificant*.

Construction trucks may cause some increase in traffic on Santa Claus Lane, particularly if they have to wait for a train to pass by before turning on to Sand Point Road. Table 3.11-2 shows the LOS for Santa Claus Lane, which is typically operating at a LOS A level on weekdays and LOS B level on weekends. These service levels exceed the County's LOS C minimum standard. Given that the traffic flow on Santa Claus Lane is generally good and serves only the residents and businesses along the just over half-mile stretch of Santa Claus Lane and off of Spindrift Lane/Sand Point Road, the potential

increase in traffic caused by construction trucks on Santa Claus Lane would not be significant. Further, as part of the Traffic Control Plan, the construction contractor would utilize a flagger at the intersection of Spindrift Lane and Santa Clause Lane to direct construction truck traffic entering and exiting the site. This would minimize impacts to circulation that may occur in the intersection where pedestrians, bicyclists, and trains would also be a factor.

Impacts to circulation would only be associated with temporary construction. There would be no long-term impacts on transportation following the completion of construction activities. With the implementation of the Traffic Control Plan, short-term, temporary, construction-related impacts would be *insignificant*.

Impact TT-2. The proposed Project would result in temporary hazards associated with heavy construction equipment on narrow roads.

Haul trucks and concrete trucks would be present on Sand Point Road, which is relatively narrow (15 feet wide), in contrast to the typical 20 feet for two-lane roads in the U.S. There are not any shoulders or turnouts for the trucks to access along most of the road, so the trucks could potentially pose a temporary hazard (vehicular impediment) on Sand Point Road. However, the proposed Traffic Control Plan would include a 15 miles per hour (mph) speed limit during construction, which would limit potential hazard risks associated with speed. Heavy construction equipment not being used would be stored off of the roads in the staging areas (refer to Figure 3.11-1). Implementation of the proposed Traffic Control Plan would limit the number of trucks and specify where they can wait for their turn to enter the Project site to unload. It would also include flaggers who would direct traffic along the Santa Claus Lane and Spindrift Lane/Sand Point Road intersection to avoid risks to pedestrians and bicyclists using the Class I bikeway. The presence of construction equipment, haul trucks, and concrete trucks would be short-term and temporary, associated with construction activities only.

The presence of hazards would only be associated with the temporary construction period. No permanent impact would occur following the completion of the proposed Project. With the implementation of the Traffic Control Plan, including limits of the number of trucks and where they can wait along the road, the temporary hazards associated with heavy construction equipment and trucks would be *insignificant*.

Impact TT-3. The proposed Project would result in temporary impacts to emergency access.

The presence of haul trucks on Sand Point Road, which is relatively narrow (15 feet wide in contrast to the typical 20 feet wide for two-lane roads), could result in temporary impacts to emergency access to the 25 homes in the Sandyland community along Sand Point Road and Casa Blanca Beach Estates community to a lesser extent. An approved Traffic Control Plan, including a limit on the number of trucks allowed on Sand Point Road at any given time, specifications on where trucks can wait so they avoid driveways and access points, and traffic flaggers would help avoid these impacts. Additionally, the Traffic Control Plan would include detailed instructions for trucks to use the County access roads, staging areas, or driveways (if permitted) to allow access for emergency vehicles or avoid impediments to local evacuation in the event of an emergency.

Impacts to emergency access would only be associated with the temporary construction period. No permanent impact would occur as a result of the finished Project. With implementation of the

propsoed Traffic Control Plan measures in place to avoid impediments to emergency vehicles and evacuation, impacts to emergency access would be *insignificant*.

3.11.4.3 Cumulative Impacts

Construction to increase parking, improve beach access, and improve traffic circulation among other things on Santa Claus Lane is scheduled are anticipated to be completed late 2026/early 2027 and would not overlap construction activities associated with the Project, which would likely not begin until early 2028. Since there is no overlap with the construction activities on Santa Claus Lane, and there are no other projects anticipated near the proposed Project site, cumulative impacts are not expected to occur.

3.11.4.4 Proposed Mitigation

No mitigation measures are required.

3.11.4.5 Residual Impacts

Impact TT-1. The proposed Project would result in minor construction traffic that would cause short-term, temporary disruptions in traffic and circulation patterns. However, the proposed Project would include the development and implementation of a Traffic Control Plan that would serve to help alleviate traffic congestion, and impacts would be *insignificant.*

Impact TT-2. Haul trucks and concrete trucks required for construction activities would pose potential temporary safety hazards as a result of large, heavy construction equipment on narrow roads. However, the development and implemented of a Traffic Control Plan would limit the number of trucks and where they can wait along the road, and impacts would be *insignificant.*

Impact TT-3. The proposed Project would result in temporary impacts to emergency access as a result of heavy construction equipment and haul trucks on Sand Point Road. However, impacts would short-term and temporary during construction and alleviated through implementation of a Traffic Control Plan as part of construction. Impacts would be *insignificant.*

Chapter 4
Alternatives Analysis

4.1 Introduction

California Environmental Quality Act (CEQA) Guidelines Section 15126.6 requires that an Environmental Impact Report (EIR) describe a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or reduce any significant environmental impacts while attaining the basic objectives of the project. This chapter describes three potential alternatives to the proposed Sandyland Seawall Project (Project) that were considered, analyzes potential physical environmental impacts resulting from these alternatives, compares these impacts to those that could result from the proposed Project, and identifies the Environmentally Superior Alternative. The purpose of this section is to provide sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Project.

Key provisions of CEQA Guidelines Section 15126.6 pertaining to the alternatives analysis are summarized below:

- The discussion of alternatives will focus on alternatives that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.
- The "No Project Alternative" will be evaluated, along with its impacts. The No Project Alternative analysis will discuss the existing conditions at the time the Notice of Preparation (NOP) was published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a "rule of reason;" therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. Alternatives will be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- For alternative locations, only locations that would avoid or substantially reduce any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is selected and discussed in a manner that fosters meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Guidelines Section 15126.6[f][1]) are environmental impacts, economic viability, social and political acceptability, technological capacity, availability of infrastructure, general plan consistency, regulatory limitations, and jurisdictional boundaries. An EIR need not consider an alternative whose effects could not be reasonably identified, whose implementation is remote or speculative, or that would not achieve the basic project objectives.

4.2 Project Objectives

The objectives for the proposed Project are presented in Chapter 1, *Introduction,* and reiterated here for reference:

1. Protection of Residences, Accessory Structures, and Other Infrastructure – Provide a permitted, stable, robust, and durable shoreline protection device, necessary to protect existing single-family residences, accessory structures, and associated infrastructure along Sand Point Road.
2. Protection of the Carpinteria Salt Marsh – Provide a shoreline protection device that continues to provide appropriate stabilization for the Carpinteria Salt Marsh tidal inlet and sustains the marsh over the long-term.
3. Consistency with Existing and Future Coastal Processes – Provide a shoreline protection device that takes into account long-term fluctuations in coastal processes and future sea level rise (SLR), consistent with, and without disruption to, existing ongoing and future natural coastal processes, while also minimizing the need for long-term maintenance activities.
4. Coastal Dune Habitat – Minimize impacts to and improve coastal dune habitat.
5. Coastal Access – Provide adequate vertical and lateral pedestrian access to/from the beach for all current and future users.

4.3 Summary of Potentially Significant and Unavoidable Impacts

Based on the analysis provided in this EIR, the proposed Project would result in a potentially significant and unavoidable impact to sensitive receptors that would be located within 1,600 feet of construction activities and would experience average noise levels exceeding 65 A-weighted decibels (dBA) during construction. To mitigate this short-term, temporary, construction-related impact, the County's *Thresholds and Guidelines Manual* requires that construction within 1,600 feet of sensitive receptors be limited to weekdays between the hours of 8:00 A.M. to 5:00 P.M. However, given the physical conditions within the Project site (e.g., tides, wave action, etc.) it would be infeasible to limit construction activities from 8:00 A.M. to 5:00 P.M. without major disruptions to the schedule, extending the total duration well beyond 6 to 7 months. Additionally, the construction of temporary noise attenuation barriers along the revetment would also be infeasible due to the windy conditions (as well as potential wave action) along the exposed coastline and likely impacts to dune vegetation.

MM NOI-1 minimize noise to the maximum extent practicable requiring functioning and properly maintained muffler systems, including intake silencers. Additionally, MM NOI-2 would require that stationary construction equipment (e.g., generators) within the construction staging and materials laydown areas (located at 865 Sand Point Road and 501 Sand Point Road at the northwestern and southeastern extents of the Project site, respectively) be appropriately shielded by the contractor and/or construction crews. While short-term, temporary, construction-related noise impacts can be reduced through implementation of mitigation measures, feasible mitigation does not exist which can fully mitigate these impacts.

4.4 Alternatives Considered and Discarded

CEQA Guidelines Section 15126.6(c) requires that an EIR disclose alternatives that were considered and rejected for further analysis and provide a brief explanation as to why such alternatives were not fully considered in the EIR. The following alternatives were considered but were ultimately eliminated from further analysis by the County due to infeasibility, inability to avoid or substantially reduce significant project impacts, or inconsistency with the Project Objectives.

4.4.1 Removal of 1983 Rock Section Alternative

Unlike the No Project Alternative considered below for full analysis, this alternative would not recognize the existing 1983 section of the revetment. This alternative would remove the 1983 revetment (including the splash wall rock section) along the entire 3,700-foot length of the existing revetment, thus significantly decreasing the rock shoreline protection footprint along the beach. The remaining underlying 1964 design section of the revetment would be restored/rebuilt using existing on-site rock (see Figure 4-1). Approximately 40,000 tons of existing rock from the 1983 section of the revetment would be removed and hauled off to an upland disposal site.

This action would require a much greater degree of construction activities, over a longer construction period, and associated short-term, temporary impacts as compared to the proposed Project, as a greater amount of excavation and haul truck trips to export rock from the beach would be required. More frequent maintenance activities would be required to repair the 1964 section. Further, this alternative would not achieve any of the Project Objectives and would expose residents and the Carpinteria Salt Marsh to significant coastal hazards over the near-term and long-term, as presented in the *Coastal Hazards Assessment* (Moffatt & Nichol 2025). Therefore, this alternative was discarded from further consideration.

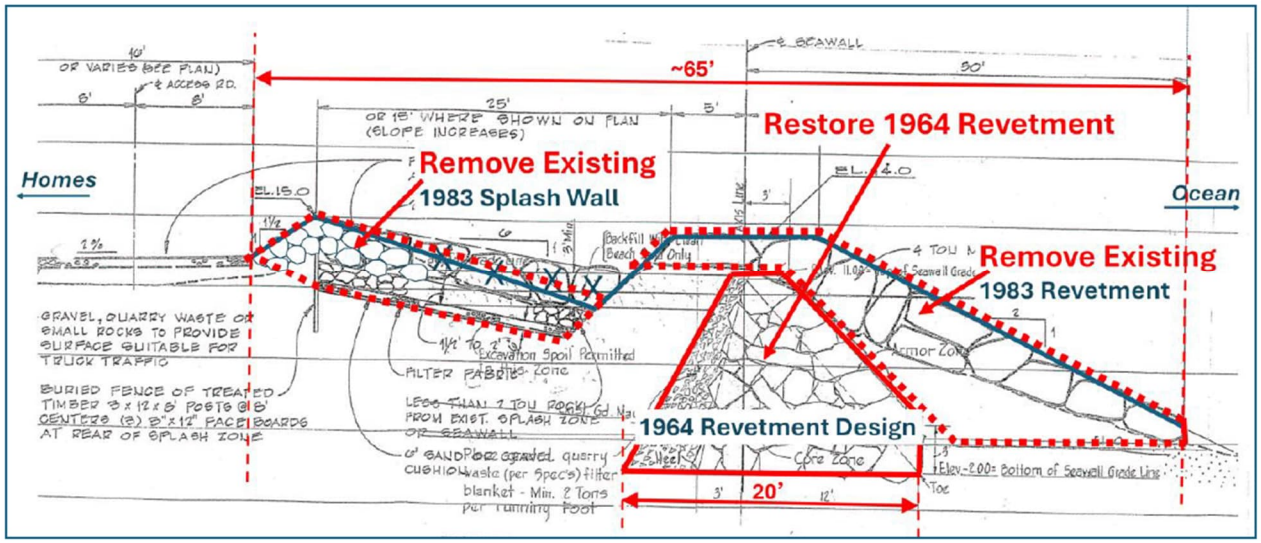


Figure 4-1. Cross-Section of Removal of the 1983 Rock Section Alternative

4.4.2 Rebuild Existing Revetment within 1983 Design Footprint Alternative

This alternative would rebuild the existing rock revetment within the 1983 design footprint along its 3,700-foot length. While the proposed Project would restore the 1983 design based on the addition of imported rocks within the existing section, this alternative would involve temporarily removing existing rock and rebuilding the revetment's armor layer using the existing rock, as well as imported rock. This reconstruction would provide increased interlocking of armor rock (i.e., improved stability) and a steepened slope would allow for a lower toe elevation to accommodate potential beach scour. No repairs would be made to the landward "splash wall" section of the revetment. It is assumed the import of new rock would be approximately 30 percent (i.e., 5,000 tons) more than the proposed Project due to increased interlocking of armor rock, lower toe elevation, and the need to fill the assumed void (i.e., unarmored) space(s) between the 1983 section and the 1964 core section. The objective of rebuilding the revetment (as compared to repair under the proposed Project) would be to provide a more stable, robust, and durable long-term protective device. The installation of enhanced vegetated dunes and accessway improvements would be similar in design to that of the proposed Project (see Figure 4-2).

Similar to the proposed Project, this alternative would include future maintenance, with an assumed import of up to 5,000 tons of armor rock approximately every 10 years. The alternative would also include allowance for future SLR adaptation measures (e.g., additional rock import of up to 41,000 tons to raise the crest elevation to accommodate future SLR of up to 2.8 feet). Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessways, and dune habitat occurring more than once per year.

This alternative would potentially require a much greater degree of construction activities, over a longer construction period, and associated short-term, temporary impacts as compared to the proposed Project due to the need for import of a greater amount of armor rock. While this alternative is likely to meet most of or all of the Project Objectives, it would not reduce short-term, temporary, construction-related impacts as compared to the proposed Project, and therefore, was discarded from further consideration.

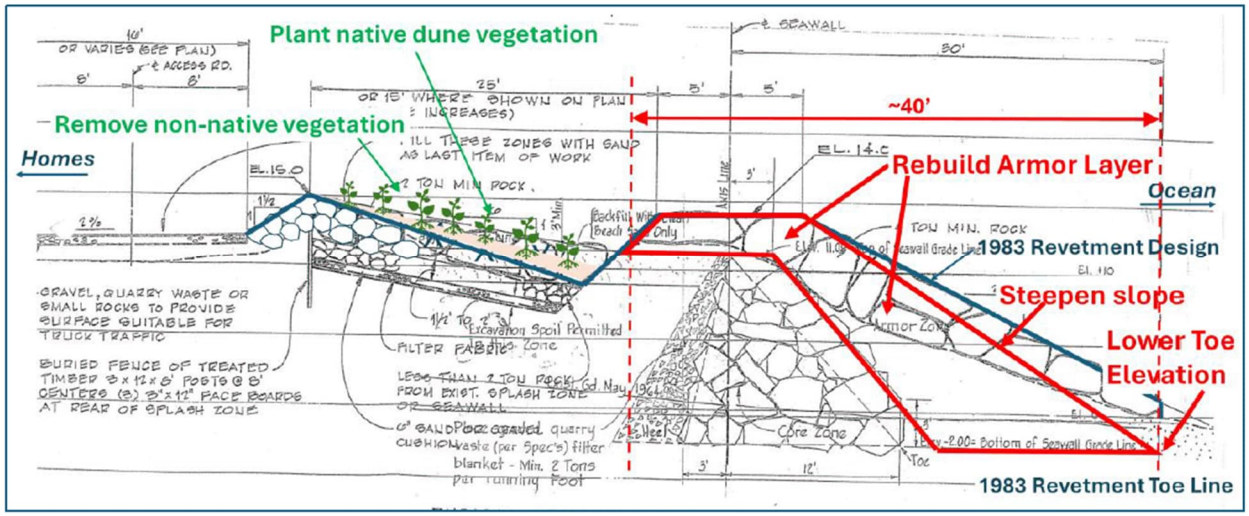


Figure 4-2. Cross-Section of the Rebuild Existing Revetment with 1983 Footprint Alternative

4.4.3 Vertical Wall Alternative

This alternative would remove the existing rock revetment (both the 1964 and 1983 sections) and replace it with a vertical wall located landward of the 1964 revetment design toe line. The wall would likely consist of steel sheet pile, embedded to approximately -40 feet NAVD88 elevation, an armor rock apron to mitigate for scour, and a concrete cap with an elevation of +21.4 feet NAVD88 (+19 feet NGVD) (i.e., 5 feet higher than the existing revetment). The existing revetment would be demolished and the existing rock (estimated to be approximately 60,000 tons) hauled off site to an inland disposal site. However, this alternative is considered infeasible for the following reasons:

- Vertical walls are erosive to the fronting beach as waves reflect off the wall.
- Existing shore-perpendicular accessways are not wide enough to accommodate the construction equipment, such as a pile-driver device, needed to construct this alternative.
- Providing access over the wall to/from the sandy beach would be challenging.
- Finding a suitable disposal/reuse site for the large amount of existing rock would be challenging.

Further, for the reasons listed above, this alternative would fail to meet most of the Project Objectives. Therefore, this alternative was discarded from further consideration.

4.4.4 Removal of Existing Rock Revetment and Replacement with Cobble Revetment Alternative

This alternative would remove the existing rock revetment (both the 1964 and 1983 design sections) and replace it with a cobble berm. The cobble would be dynamic over time (i.e., its footprint would change based on coastal conditions over time). Although there are limited examples of cobble shoreline protection projects, existing cobble projects have cobble fills ranging from 18 to 30 cubic yards (cy) per linear foot of shoreline. This would equate to a cobble import need of 66,000 to 111,000 cubic yards (105,000 to 178,000 tons), necessary to replace the 3,700-foot-long revetment. The existing revetment rock (estimated to be approximately 60,000 tons) would also need to be hauled off-site. This alternative is considered infeasible for the following reasons:

- As cobble does not naturally occur along the beach, import of cobble would likely negatively impact the shoreline dynamics in this region, including possibly within the Carpinteria Salt Marsh as cobble migrates along the shoreline.
- The cobble would likely not provide the required level of protection (i.e., wave overtopping damage would be likely).
- There may not be a source which can provide the amount of cobble required.
- The number of trucks to haul off existing rock and import cobble is significant (approximately 15,500 trucks hauling 10 tons each).
- Finding a suitable disposal/reuse site for the existing rock would be challenging.

Further, for the reasons listed above, this alternative would fail to meet most of the Project Objectives. Therefore, this alternative was discarded from further consideration.

4.4.5 Removal of Existing Rock Revetment and Replacement with Wide Sandy Beach Shoreline Protection via Sand Import Alternative

This alternative is to remove the existing rock revetment (both the 1964 and 1983 design sections) and instead depend upon a wide sandy beach to afford the same level of protection. It is assumed the beach berm would need to be at least 100 feet wide to account for seasonal episodic erosion. This would require an initial import of approximately 600,000 cy of sand along the 3,700-linear-foot shoreline. The beach would likely need to be re-nourished every 5-10 years to maintain the 100-foot wide sand berm. The existing revetment rock (estimated to be approximately 60,000 tons) would need to be hauled off-site. This alternative is considered infeasible for the following reasons:

- An investigation would be required to determine a sand source for both the initial nourishment and long-term re-nourishment cycles; it may be that a long-term viable sand source is not available.
- Assuming a land-based sand source, 40,000 trucks would be required to import sand for each nourishment cycle (15 cy per truck).
- Finding a suitable disposal/reuse site for the existing rock would be challenging.
- During severe events and especially at the end of re-nourishment cycles, episodic erosion could occur, causing flooding and damage of the homes.
- The increased sand could negatively impact the Carpinteria Salt Marsh tidal inlet (i.e., cause more frequent closures of the inlet).
- The initial and long-term costs are beyond the means of the County and homeowners.

Further, for the reasons listed above, this alternative would fail to meet most of the Project Objectives. Therefore, this alternative was discarded from further consideration.

4.4.6 Retention of Existing Rock Revetment and Burial via Sand Import Alternative

This alternative would retain the existing rock revetment and place imported sand to partially bury the seaward slope of the existing revetment in order to increase the sandy beach area. It is assumed this beach width increase would be 10-15 feet along the length of the revetment but would be subject to seasonal episodic erosion. This would require an initial import of approximately 100,000 cy of sand along the 3,700-foot shoreline assuming the seaward slope of the revetment contains approximately 40 percent voids and a 5:1 (horizontal:vertical) sand berm slope would be constructed. The beach would need to be re-nourished every 5-10 years to maintain sand coverage of the revetment. This alternative is considered infeasible for the following reasons:

- An investigation would be required to determine a sand source for both the initial nourishment and long-term re-nourishment cycles; it may be that a long-term viable sand source is not available.
- Assuming a land-based sand source, 6,700 trucks would be required to import sand for each nourishment cycle (15 cy per truck).
- The sand would likely not stay on the rock over long-term periods.

- The increased sand could negatively impact the Carpinteria Salt Marsh tidal inlet (i.e., cause more frequent closures of the inlet).
- The initial and long-term costs are beyond the means of the County and homeowners.

Further, for the reasons listed above, this alternative would fail to meet most of the Project Objectives. Therefore, this alternative was discarded from further consideration.

4.5 Alternatives Considered

The goal for developing possible alternative scenarios under CEQA is to identify other means to attain the Project Objectives while reducing or avoiding potentially significant environmental impacts that could result from the adoption of the proposed Project. As part of the development of the design plans, coastal engineering, and coastal hazards analysis for the proposed Project, the County developed a range of coastal resiliency alternatives. The reasonable range of alternatives with the potential to attain the basic objectives of the proposed Project but avoid or substantially reduce significant impacts is analyzed below. Each alternative is discussed in relation to the objectives of the proposed Project. Alternatives selected for this analysis include:

- No Project Alternative (as required by CEQA Guidelines Section 15126.6[e])
- Alternative 1 — Repair and Improve Existing Revetment within 1983 Design Footprint
- Alternative 2 — Pull-Back Revetment

4.5.1 No Project Alternative

Under the No Project Alternative (as required by CEQA Guidelines Section 15126.6[e][2]), no construction or maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Further, there would be no dune vegetation enhancement or accessway improvements. The No Project Alternative included for full analysis would involve the retention of the approximately 3,700-foot revetment including both the original section built in 1964 and the additional section built in 1983 under an emergency action. This No Project Alternative considers impacts of a scenario under which no changes are made to the existing physical conditions at the time of issuance of the NOP, per guidance provided in CEQA Guidelines Section 15126.6(e)(1).

4.5.2 Alternative 1 — Repair and Improve Existing Revetment within 1983 Design Footprint

Alternative 1 would improve upon the 1983 design by proactively raising the crest elevation to +19 feet NAVD88 (an increase in height of 2.6 feet to the 1983 design revetment) to accommodate future sea level rise of up to approximately 1.7 feet. The additional rock footprint required for the crest elevation increase would be within the existing swale area. The existing rock section (1983 design) would also need to be repaired/restored as in the proposed Project. In addition to the 15,000 tons for the repair of the existing revetment, an additional 16,000 tons of armor rock would need to be imported for raising the crest elevation to +19 feet NAVD88 (see Figure 4-3 and Figure 4-4).

Further, like the proposed Project, Alternative 1 would include installation of enhanced vegetated sand dunes within the existing swale between the revetment and splash wall; however, the total area of enhancement would be less than that described for the proposed Project because of the reduced swale width. (The seaward edge of existing swale area would be new rock area in this alternative.) New public accessways to the sandy beach would be installed, similar to what is shown for the proposed Project albeit higher to accommodate the higher crest elevation. (However, as described for the proposed Project, Sand Point Road would remain a private, gated access road that would limit the ability of the public to access the unnamed beach via these new public access connections.)

Similar to the proposed Project, Alternative 1 includes future maintenance, with an assumed import of up to 5,000 tons of armor rock approximately every 10 years. This alternative also includes allowances for additional future SLR adaptation measures. For example, Alternative 1 would include additional rock import of up to 25,000 tons to raise the crest elevation to accommodate additional future SLR of up to 2.8 feet (i.e., beyond the initial construction for 1.7 feet of SLR). Like the initial construction, the additional rock footprint for these future crest elevation increases would be within the existing swale and splash wall area. Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessways, and dune habitat occurring more than once per year.

Alternative 1 would continue to implement the construction best management practices (BMPs) described for the proposed Project in Chapter 2, *Project Description.*

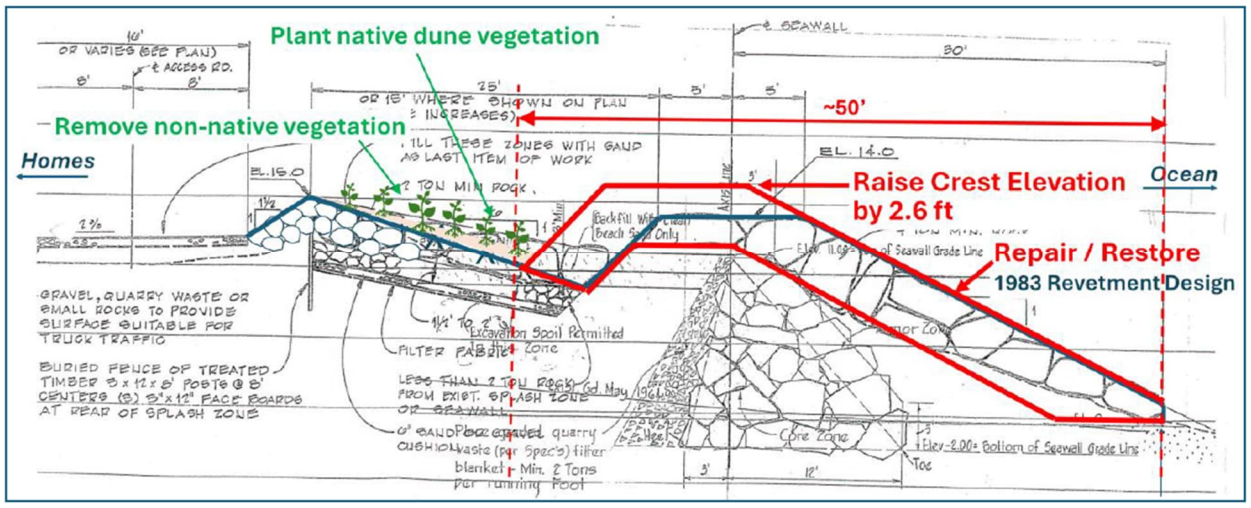


Figure 4-3. Cross-Section of Alternative 1 – Repair and Improve Existing Revetment within 1983 Design Footprint



Figure 4-4. Alternative 1 Plan View

4.5.3 Alternative 2 – Pull-back Revetment

Alternative 2 would involve removing the entire existing 3,700-foot-long revetment and re-building it in a more landward position, pulling back the revetment toe line landward to the 1964 revetment design toe line, a revetment footprint shift of approximately 18 feet landward. As described in the *Coastal Hazards Assessment* (Moffatt & Nichol 2025), the new pull-back revetment would need to have a 2-feet higher crest elevation (+18.4 feet NAVD88) than the existing 1983 design to afford approximately the same level of wave overtopping protection as the existing revetment with the swale and splash wall. The landward edge of the pull-back revetment would significantly encroach into the homeowner properties. The existing splash wall and swale would be removed (replaced with the new revetment) (see Figure 4-5 and Figure 4-6).

The estimated total rock volume required to construct the pullback alternative is approximately 90,000 tons. It is assumed that approximately 40,000 tons of sufficiently sized rock exist on-site and thus there would be a need to import approximately 50,000 tons of armor and underlayer rock and export approximately 10,000 tons of unusable existing smaller rock. This alternative would not allow for installation of enhanced dune vegetation due to the elimination of the swale area. New stairways (up to 11) would be constructed over the new rock revetment to provide access to/from the sandy beach. (However, as described for the proposed Project and Alternative 1, Sand Point Road would remain a private, gated access road that would limit the ability of the public to access the unnamed beach via these new public access connections.)

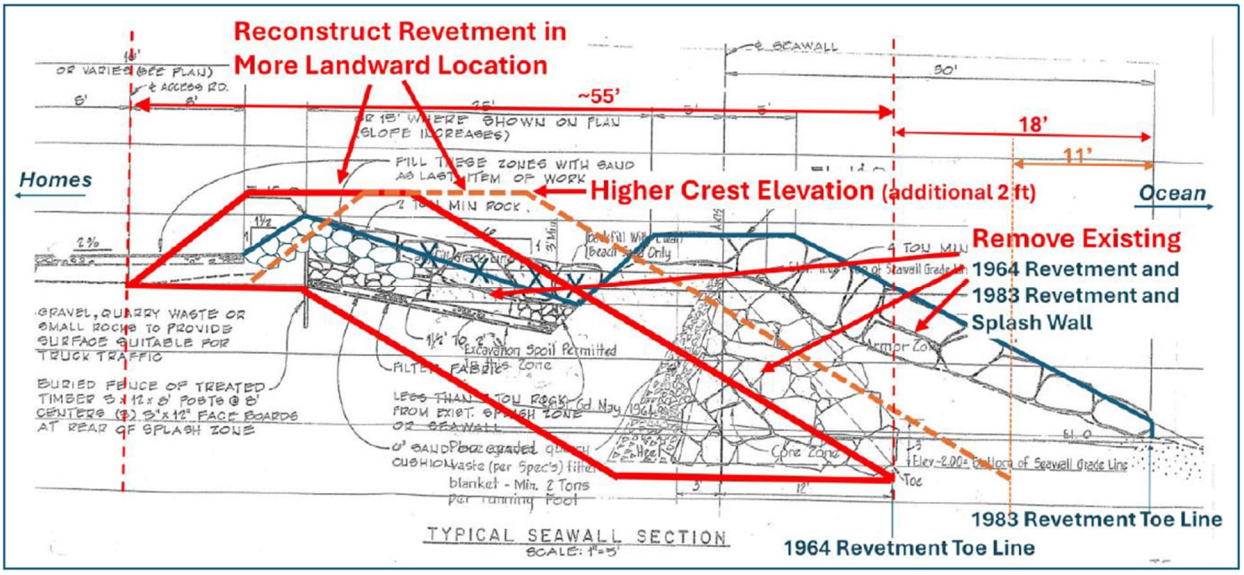


Figure 4-5. Cross-Section of Alternative 2 – Pull-back Revetment

Like the proposed Project, Alternative 2 includes future maintenance, with an assumed import of up to 5,000 tons of armor rock approximately every 10 years. Alternative 2 also includes allowance for future SLR adaptation measures (e.g., additional rock import of up to 41,000 tons to raise the crest elevation to accommodate future SLR of up to 2.8 feet). Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property, public accessways, and dune habitat occurring more than once per year.



Figure 4-6. Alternative 2 Plan View

Alternative 2 would continue to implement the construction best management practices (BMPs) described for the proposed Project in Chapter 2, *Project Description.*

4.6 Comparative Impact Analysis of Alternatives Considered

A description of environmental impacts under each alternative is provided below. Table 4-1 provides a summary of the comparative impacts of each alternative to the proposed Project.

4.6.1 No Project Alternative

Aesthetics and Visual Resources

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. There would be no short-term change to public views of or from the Project site or the surrounding areas. Short-term, temporary impacts to aesthetics and visual resources associated with the presence of construction equipment would not occur under the No Project Alternative. However, the No Project Alternative would not result in repairs to the revetment which would correct the uneven height of the revetment crest in certain areas, which would help to improve some private views in certain cases under the proposed Project. Nevertheless, the absence of the improvements to the revetment to improve resiliency to coastal hazards would result in potentially more adverse impacts associated with the damage to the revetment and/or exposure of existing residential development to substantial risk of damage or destruction from coastal processes.

Air Quality

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Short-term, temporary impacts to air quality associated with the use of construction equipment would not occur under the No Project Alternative.

Biological Resources

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. There would be no short-term, temporary impacts to biological resources associated with the use of construction equipment. However, the No Project Alternative would not include the proposed dune vegetation enhancement (including the removal of nonnative vegetation and enhancement with native plantings). Further, due to increased wave overtopping, there would be increased disturbance

and damage to existing sensitive vegetation over time. The beneficial impacts to biological resources associated with the proposed dune enhancement would not be realized under the No Action Alternative.

Cultural Resources and Tribal Cultural Resources

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. There would be no potential for impacts to prehistoric, historic, or tribal cultural resources because ground disturbing activities (e.g., digging trenches) would not occur.

Greenhouse Gases and Climate Change

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Therefore, short-term, temporary impacts to greenhouse gas (GHG) emissions and climate change associated with the use of construction equipment would not occur under the No Project Alternative.

Hazards and Hazardous Materials

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Short-term, temporary impacts associated with the use of construction equipment would not occur under the No Project Alternative. However, without the initial repair and long-term maintenance of the revetment to improve resiliency to coastal hazards, the implementation of the No Project Alternative would result in potentially more adverse impacts associated with the damage to the revetment and/or exposure of existing residential development and associated utilities to substantial risk of damage or destruction from coastal processes.

Hydrology, Water Quality, and Coastal Processes

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Further, there would be no protection of the revetment against current and future SLR hazards, including wave runup and overtopping, and shoreline residences would be subjected to increasing risks of flooding and damage. Over the short-term, there would be no potential impacts to hydrology, water quality, and coastal processes. For example, there would be no potential increases in ocean turbidity associated with excavation of toe trenches described for the proposed Project. However, without the initial repair and long-term maintenance to improve the resiliency of the revetment to coastal hazards the No Project Alternative would result in potentially more adverse impacts associated with the

exposure of existing development to substantial risk of loss, damage, or destruction from coastal processes.

Land Use and Planning

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. There would be no potential conflicts to applicable land use and planning standards or zoning requirements established for the purposes of reducing or avoiding impacts to the environment.

Noise

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Short-term, temporary significant noise impacts to sensitive receptors resulting from the use of construction equipment would not occur.

Recreation

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Improvements for public access to the beach would not be constructed. Short-term, temporary impacts to recreation associated with the presence of construction equipment would not occur under the No Project Alternative.

Transportation

Under the No Project Alternative, no construction or long-term maintenance activities would occur on the Project site. The proposed Project would not be implemented, and repair, maintenance, and improvement of the revetment would not be made to restore its hydraulic stability and shore protection function, or to represent more current coastal engineering standard practices. Therefore, short-term, temporary impacts associated with the presence of haul truck trips and construction worker commutes would not occur under the No Project Alternative.

Conclusion and Relationship to Project Objectives

Adoption of the No Project Alternative would eliminate impacts associated with the construction and long-term maintenance activities described for the proposed Project; however, the No Project Alternative would not achieve any of the Project Objectives. Additionally, without the implementation of the proposed Project, the beneficial impacts related to protection from coastal hazards, biological resources (dune vegetation), and coastal access improvements would not occur.

4.6.2 Alternative 1 – Repair and Improve Existing Revetment within 1983 Design Footprint

Aesthetics and Visual Resources

Similar to the proposed Project, under Alternative 1, temporary construction activities would result in potential adverse changes in views and visual resources due to construction vehicles, staging areas, and debris and materials. However, these impacts would be temporary in nature, and the construction equipment in the staging area would be shielded with fencing to reduce impacts. This alternative would raise the crest height of the revetment to +19 feet NAVD88, which is greater than the crest height of +16.4 feet NAVD88 under the proposed Project. Increasing the height of the revetment may disrupt distant views of the mountains over the top of the revetment, for the public from the beach. However, the slight increase in impacts on views along the shoreline and potential impacts to offshore views (e.g., from a kayak, paddleboard, or boat) by the public would be negligible. As described further in Section 3.1, *Aesthetics and Visual Resources* and Section 3.10, *Recreation*, the unnamed beach is generally inaccessible from the north due to the existing rock revetment constructed to protect the adjacent private residences of the Casa Blanca Beach Estate Owners Association located north of the project site, and from the south due to the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. Therefore, impacts related to aesthetics and visual resources under this alternative would be slightly more adverse than those described in Section 3.1, *Aesthetics and Visual Resources,* but would remain *insignificant*.

Air Quality

When compared to the proposed Project, Alternative 1 has the potential to result in greater construction-related impacts in the near term, given the 31,000 tons of imported rock (in comparison to the proposed Project import amount of 15,000 tons) for the installation of SLR improvements as part of initial construction (as opposed to additional rock import over time to accommodate future SLR as needed under the proposed Project). This would result in a greater number of construction haul truck trucks, haul truck emissions, and a longer construction schedule. However, similar to the proposed Project, this alternative involves only minor ground disturbances within sandy soils resulting from the removal of non-native vegetation and re-working of armor rock which would not result in substantial criteria air pollutant or fugitive dust emissions. Given the near doubling of imported material for construction, it can be conservatively estimated that this alternative would result in nearly twice the amount of short-term criteria pollutant emissions. However, as shown in Table 3.2-5 and discussed under Impact AQ-2 (refer to Section 3.2, *Air Quality*), the proposed Project's estimated construction emissions fall substantially below Santa Barbara County Air Pollution Control District's (SBCAPCD) recommended construction thresholds. A conservative doubling of emissions under Alternative 1 would still not result in an exceedance of SBCAPCD's recommended thresholds for characterizing impacts from short-term construction-related air pollutant emissions. Further, any odors that may be generated would be localized and temporary in nature and would not affect a substantial number of people. Therefore, impacts related to air quality under this alternative would be slightly more adverse than those described in Section 3.2, *Air Quality,* but impacts would remain *insignificant*.

Biological Resources

Impacts to biological resources under Alternative 1 would be similar to those described for the proposed Project. Like the proposed Project, this alternative would include installation of enhanced vegetated sand dunes within the existing swale between the revetment and splash wall; however, the amount of enhancement would likely be less than the proposed Project because of the reduced swale width (seaward edge of existing swale area would be new rock area in this alternative). As shown in Figure 4-7 and Figure 4-8, this alternative would result in more impacts to biological resources than for the proposed Project as a result of construction and site disturbance. Specifically, Alternative 1 would result in impacts to 0.23 acres of dune mat Environmentally Sensitive Habitat (ESH) (as compared to 0.03-acre under the Project) and 13 individual red sand verbena plant specimens (as compared to six red sand verbena specimens under the Project). Implementation of MM BIO-1 through MM BIO-7 would continue to be required to reduce impacts. Therefore, impacts related to biological resources under this alternative would be more adverse to those described in Section 3.3, *Biological Resources*, but impacts would remain *significant but mitigable*.

Cultural Resources and Tribal Cultural Resources

Alternative 1 would result in a similar extent or degree of construction and site disturbance as the proposed Project. As such, impacts to cultural and tribal cultural resources under Alternative 1 would be similar to those described for the proposed Project. Implementation of MM CTCR-1 and MM CTCR-2 would continue to be required to ensure that in the event of any inadvertent discoveries during construction and maintenance activities, resources are properly analyzed, protected, and curated. As a result, impacts would be similar to those described in Section 3.4, *Cultural and Tribal Cultural Resources*, and impacts would remain *significant but mitigable*.

Greenhouse Gases and Climate Change

When compared to the proposed Project, Alternative 1 has the potential to result in greater construction-related impacts in the near term, given the additional 16,000 tons of imported rock (in comparison to the proposed Project import amount of 15,000 tons) for the installation of SLR improvements as part of initial construction (as opposed to additional rock import over time to accommodate future SLR as needed under the proposed Project). This would result in a greater number of construction haul truck trucks, haul truck emissions, and a longer construction schedule. The construction-related GHG emissions resulting from the proposed Project would be primarily associated with the use of off-road construction equipment and on-road vehicles (e.g., excavators, front-end loaders, haul trucks). Given the nearly doubled amount of imported material for construction, it can be conservatively estimated that this alternative would result in nearly twice the amount of short-term criteria pollutant emissions (6.2 metric tons of carbon dioxide equivalent [MT CO_2e] per year under the proposed Project; 12.4 MT CO_2e per year under Alternative 1). However, these anticiapted GHG emissions would be highly negible in the context of the County's estimated annual GHG inventory (1.4 million MT CO_2e in 2018) and would not result in a significant impact on the environment or conflict with applians plans or policies. Therefore, impacts related to GHGs and climate change under this alternative would be slightly more adverse than those described in Section 3.5, *Greenhouse Gases and Climate Change,* but impacts would remain *insignificant*.

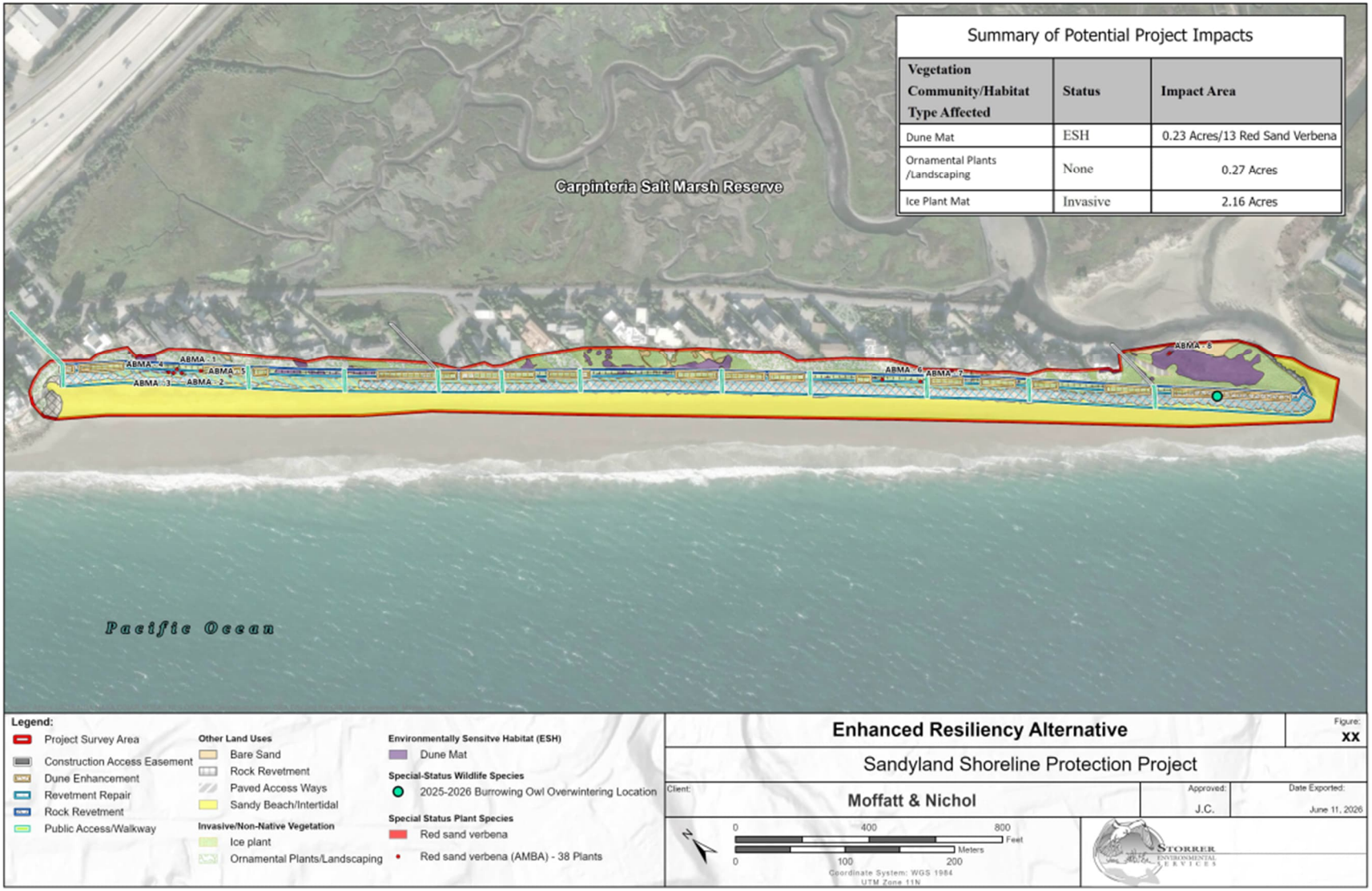


Figure 4-7. Overview of Potential Biological Impacts Under Alternative 1

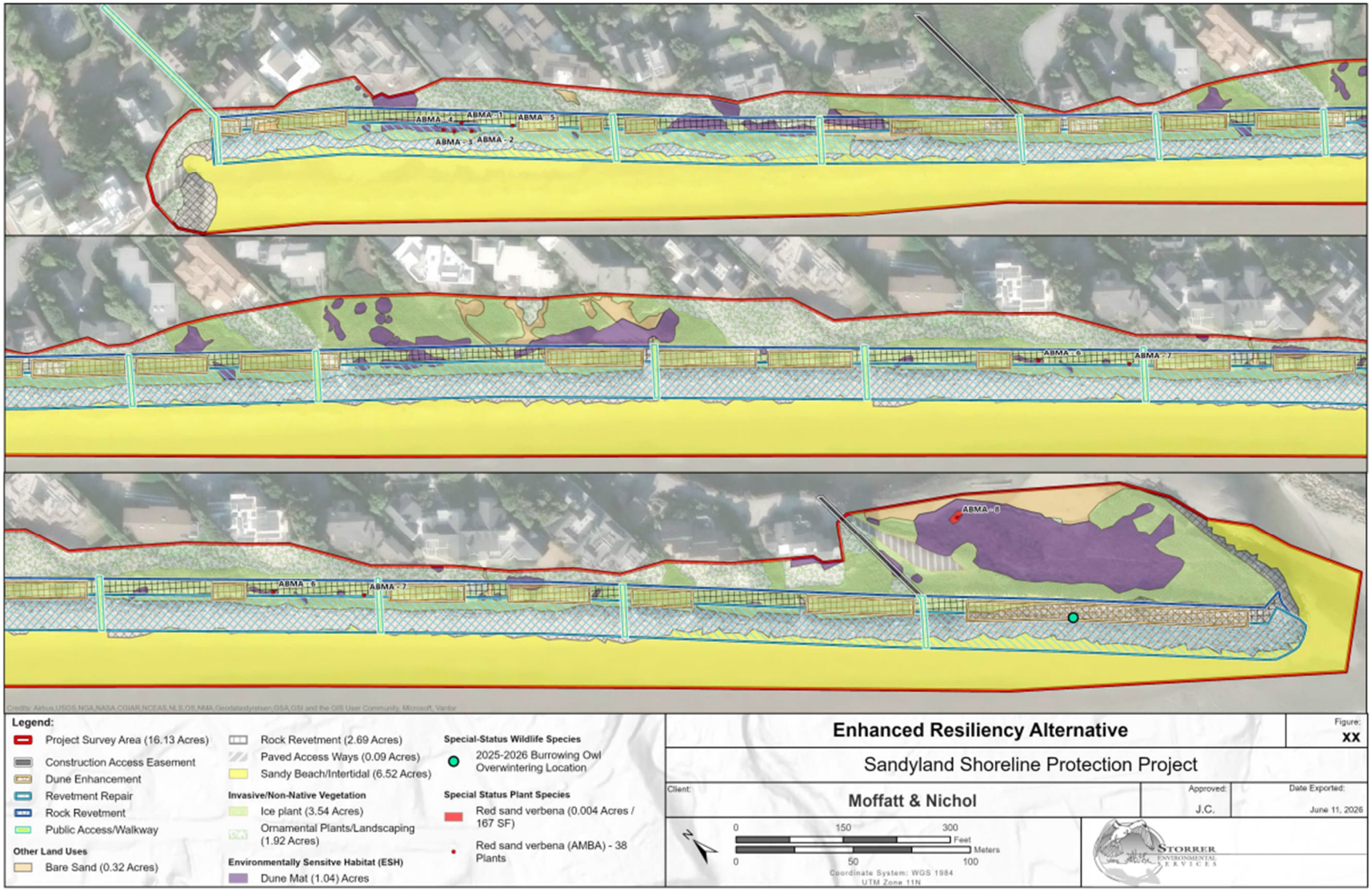


Figure 4-8. Potential Biological Impacts Under Alternative 1

Hazards and Hazardous Materials

When compared to the proposed Project, Alternative 1 has the potential to result in greater construction-related impacts in the near term, given the additional 16,000 tons of imported rock (in comparison to the proposed Project import amount of 15,000 tons) for the installation of SLR improvements as part of initial construction (as opposed to additional rock import over time to accommodate future SLR as needed under the proposed Project). Alternative 1 would result in similar types of construction activities as the proposed Project, but would result in a greater extent of construction and longer construction schedule. However, as discussed under Impact HM-1 (refer to Section 3.6, *Hazards and Hazardous Materials*), routine transport is only anticipated during construction activities. Additionally, hazardous material use at the Project site would be limited to small quantities of fuels and lubricants that are typical of construction sites. As described for the proposed Project, BMPs would be implemented to limit the possibility of inadvertent release of these materials. It is not anticipated that disposal of hazardous materials beyond typical construction/demolition debris would be required. Any construction debris would be disposed of at an approved facility (based on debris type) and in accordance with all applicable regulations. Similar to the proposed Project, there would be no significant hazard to the public or environment once construction is completed. Therefore, impacts related to hazardous materials under this alternative would be similar to those described in Section 3.6, *Hazards and Hazardous Materials,* but impacts would remain *insignificant*.

Hydrology, Water Quality, and Coastal Processes

Alternative 1 would improve upon the 1983 design by proactively raising the crest elevation to +19 feet NAVD88 (an increase in height of 2.6 feet as compared to the 1983 design) to accommodate future sea level rise of up to approximately 1.7 feet, affording a greater degree of wave overtopping protection as compared to the proposed Project. This alternative also includes allowances for additional future SLR adaptation measures. There are no design changes proposed that would change the rate of shoreline erosion (i.e., there would be no change to the existing rates of erosion on the beach in front of the revetment as a result of implementing the proposed Project (refer to Section 3.7, *Hydrology, Water Quality, and Coastal Processes*). The analysis under Impact HYD-4 demonstrates that the revetment does protect the homes in the Sandyland community from coastal flooding and inundation from the Pacific Ocean. Therefore, impacts related to hydrology, water quality, and coastal processes under this alternative would be slightly less adverse as compared to those described in Section 3.7, *Hydrology, Water Quality, and Coastal Processes,* due to the greater degree of resilience to sea level rise under this alternative, and impacts would remain *insignificant*.

Land Use and Planning

Development associated with the proposed Project and Alternative 1 may involve potential habitat disturbances, vegetation clearing (Section 3.4, *Biological Resources*), temporary erosion and runoff, water quality impacts (Section 3.9, *Hydrology, Water Quality, and Coastal Processes*), and visual resource impacts (Section 3.1, *Aesthetics and Visual Resources*). Construction and operation of new development could also result in the generation of new criteria air pollutant emissions and greenhouse gas emissions (Section 3.3, *Air Quality* and Section 3.7, *Greenhouse Gases and Climate Change*, respectively). Preliminary analysis indicates that the proposed Project is potentially consistent with the goals and policies established in the County's plans and ordinances (refer to Table 3.10-2). Alternative 1 would result in similar consistency with policies given the similar scale and

nature of proposed improvements. Regarding quality-of-life impacts, this alternative would result in greater impacts to aesthetics, air quality, noise, and traffic due to the greater amount of imported materials. However, these impacts would be temporary, and the increase in impacts is not anticipated to be substantial. Therefore, impacts related to land use and planning under this alternative would be slightly more adverse than those described in Section 3.8, *Land Use and Planning,* but impacts would remain *insignificant*.

Noise

Given the 31,000 tons of imported rock (in comparison to the import amount of 15,000 tons associated with the proposed Project) for the installation of SLR improvements as part of initial construction (as opposed to additional rock import over time to accommodate future SLR as needed under the proposed Project), Alternative 1 is likely to result in a significantly longer construction duration. Similar to the proposed Project, temporary construction-related noise would be generated from the repair of the revetment, the installation of dune vegetation, and improvements to coastal access. Based on USEPA guidelines, the noise level associated with heavy construction equipment typically averages approximately 95 dBA at 50 feet from the source (refer to Section 3.9, *Noise*). To mitigate this short-term, temporary, construction-related impact, the County's *Thresholds and Guidelines Manual* requires that construction within 1,600 feet of sensitive receptors be limited to weekdays between the hours of 8:00 A.M. to 5:00 P.M. However, given the physical conditions within the Project site (e.g., tides, wave action, etc.) it would be infeasible to limit construction activities from 8:00 A.M. to 5:00 P.M. without major disruptions to the schedule, extending the total construction duration. Peak sound levels associated with construction equipment would occur sporadically throughout the workday. Implementation of MM NOI-1 and MM NOI-2 would continue to be required to reduce impacts. Nevertheless, noise levels under this alternative would be similar in magnitude but longer in duration than those described in Section 3.9, *Noise,* and impacts would remain *significant and unavoidable.*

Recreation

Similar to the proposed Project, Alternative 1 would construct new stairways (up to 11) over the new rock revetment to provide access to/from the sandy beach. (However, as described for the proposed Project and Alternative 1, Sand Point Road would remain a private, gated access road that would limit the ability of the public to access the unnamed beach via the ew coastal access path unless both HOAs agreed to the location and public use.) Therefore, impacts related to recreation under this alternative would be similar to those described in Section 3.10, *Recreation,* and impacts would remain *beneficial* and *insignificant*.

Transportation

When compared to the proposed Project, Alternative 1 has the potential to result in greater construction-related transportation impacts in the near term, given the 31,000 tons of imported rock (in comparison to the proposed Project import amount of 15,000 tons) for the installation of SLR improvements as part of initial construction (as opposed to additional rock import over time to accommodate future SLR as needed under the proposed Project). Given the nearly doubled amount of imported material for construction, it is likely that this alternative would require nearly twice the amount of construction haul trucks, thereby impacts to traffic levels and the amount of large construction trucks along Sand Point Road and increasing potential for construction-related traffic conflicts or hazards. Impacts to circulation, the presence of hazards related to equipment on narrow

roads, and emergency access would only be associated with temporary construction. No impact would occur following construction. Implementation of MM TT-1 would continue to be required to reduce impacts. Therefore, impacts related to transportation under this alternative would be slightly more adverse than those described in Section 3.11, *Transportation,* but impacts would remain *significant but mitigable.*

Conclusion and Relationship to Project Objectives

Overall, Alternative 1 would meet all Project Objectives. Alternative 1 would improve upon the 1983 design by proactively raising the crest elevation to +19 feet NAVD88 (an increase in height of 2.6 feet to the 1983 design revetment) to accommodate future sea level rise of up to approximately 1.7 feet, potentially meeting Project Objectives 1 and 3 to slightly greater degree by providing additional shoreline protection and resiliency to coastal process. However, given Alternative 1 would result in an increased impacts to existing sensitive dune vegetation and reduction in the amount of dune vegetation enhancement, Alternative 1 would not meet Project Objective 4 to the same degree as the proposed Project.

When compared to the proposed Project, this alternative has the potential to result in greater construction-related impacts in the near term, given the 31,000 tons of imported rock (in comparison to the proposed Project import amount of 15,000 tons) for the installation of SLR improvements as part of initial construction (as opposed to additional rock import over time to accommodate future SLR as needed under the proposed Project). Under this alternative, impacts related to aesthetics and visual resources, air quality, biological resources, GHGs and climate change, land use and planning, noise, and transportation would be slightly more adverse than the proposed Project.

4.6.3 Alternative 2 – Pull-back Revetment

Aesthetics and Visual Resources

Similar to the proposed Project, under Alternative 2, temporary construction activities would result in potential adverse changes in views and visual resources due to construction vehicles, staging areas, and debris and materials. However, these impacts would be temporary in nature, and the construction equipment in the staging area would be shielded with fencing to reduce impacts. This alternative would raise the crest height to +18.4 feet NAVD88, which is greater than the proposed crest height of +16.4 feet NAVD88 under the proposed Project. Increasing the height of the revetment may disrupt distant views of the mountains over the top of the revetment, from the beach for the public. However, as described for the proposed Project and Alternative 1, the slight increase in impacts on views along the shoreline and potential impacts to offshore views (e.g., from a kayak, paddleboard, or boat) by the public would likely be negligible. Therefore, impacts related to aesthetics and visual resources under this alternative would be slightly more adverse than those described in Section 3.1, *Aesthetics and Visual Resources,* but would remain *insignificant*.

Air Quality

When compared to the proposed Project, Alternative 2 would result in greater construction-related impacts in the near term, given the import of an estimated 50,000 tons of rock and export approximately 10,000 tons of existing rock (in comparison to the import amount of 15,000 associated with the proposed Project). This would result in a much greater number of construction haul trucks, haul truck emissions, and a much longer construction schedule. However, as shown in Table 3.2-5 and

discussed under Impact AQ-2 (refer to Section 3.2, *Air Quality*), the County has not adopted any numerical thresholds for construction-related air quality emissions and generally considered short-term construction emissions insignificant. Regardless, the proposed Project's estimated construction emissions fall substantially below SBCAPCD's recommended thresholds. Even while resulting in a much greater degree of construction activity, Alternative 2 is not expected to result in an exceedance of SBCAPCD's recommended thresholds for characterizing impacts from short-term, temporary, construction-related air pollutant emissions. Further, any odors that may be generated would be localized and temporary in nature and would not affect a substantial number of people. Therefore, impacts related to air quality under this alternative would be more adverse than those described in Section 3.2, *Air Quality,* but impacts would remain *insignificant*.

Biological Resources

Compared to the proposed Project and Alternative 1, Alternative 2 would result in a significantly greater construction area and associated area of disturbance with increased impacts to existing biological resources, as shown in Figures 4-8 and 4-9. Specifically, Alternative 2 would result in impacts to 0.32 acres of dune mat ESH (as compared to 0.03-acre under the Project) and 13 individual red sand verbena plant specimens (as compared to six [6] red sand verbena specimens under the Project). Further, the design of this alternative would not allow for installation of enhanced dune vegetation as described for the proposed Project, although it would increase the amount of sandy beach habitat area by shifting the revetment footprint landward. As described for the proposed Project, implementation of MM BIO-1a through MM BIO-7 would continue to be required to reduce impacts; however, the feasibility of mitigation, particularly habitat restoration, may be reduced under this alternative due to decreases in areas suitable for onsite restoration/replacement. Therefore, impacts related to biological resources under this alternative would be more adverse than those described in Section 3.3, *Biological Resources,* but impacts would remain *significant but mitigable*.

Cultural Resources and Tribal Cultural Resources

Compared to the proposed Project and Alternative 1, Alternative 2 would result in a significantly greater construction area and associated area of disturbance, increasing the potential for disturbance of buried resources. However, the expanded area of disturbance would not encroach upon or into any areas of known or recorded historic, cultural, or tribal cultural resources. As such, impacts to cultural and tribal cultural resources under Alternative 2 would be similar to those described for the proposed Project. Implementation of MM CTCR-1 and MM CTCR-2 would continue to be required to ensure that in the event of any inadvertent discoveries during construction and maintenance activities, resources are properly analyzed, protected, and curated. As a result, impacts would be slightly more adverse than those described in Section 3.4, *Cultural and Tribal Cultural Resources*, but impacts would remain *significant but mitigable*.

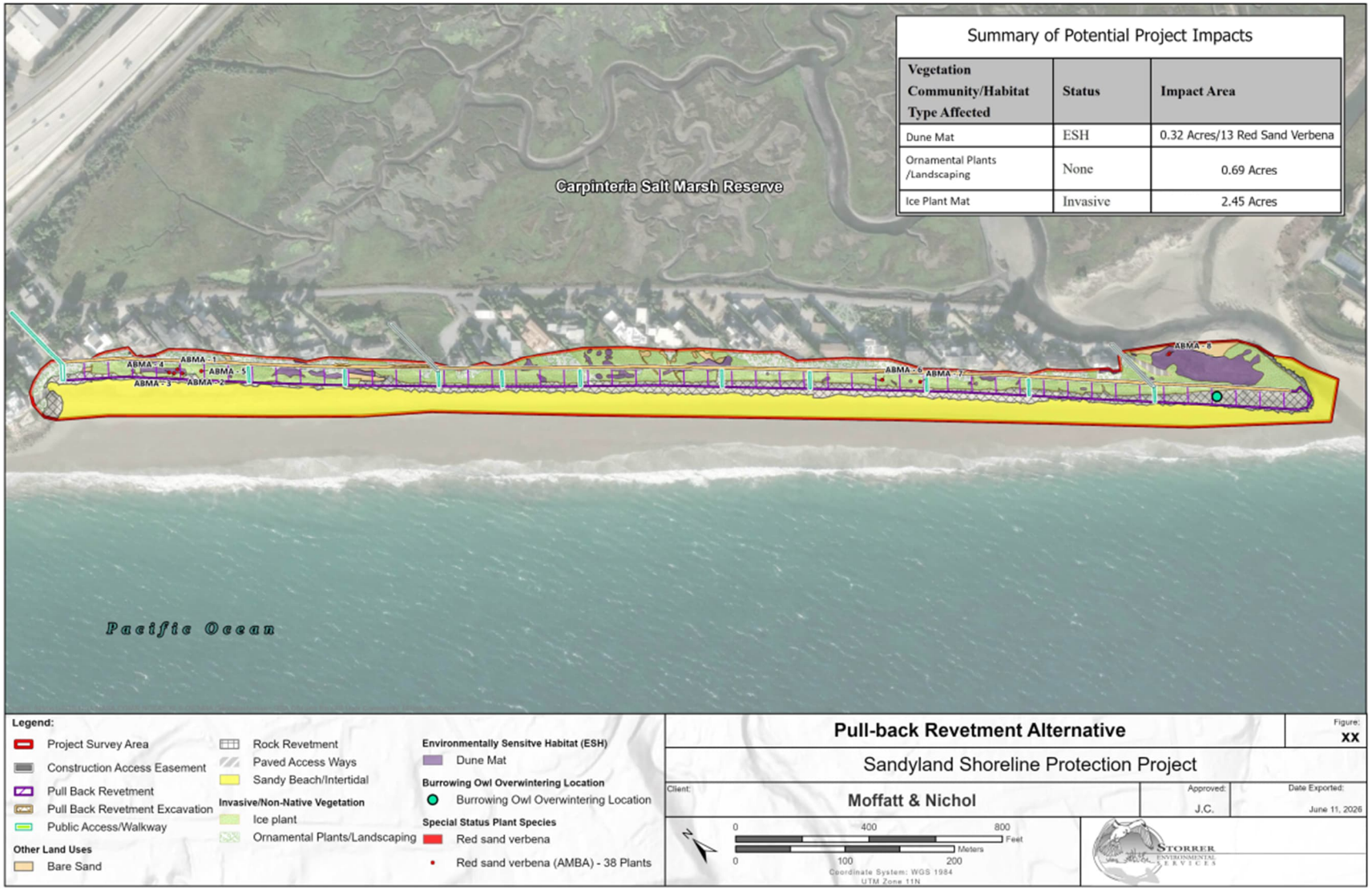


Figure 4-9. Overview of Potential Biological Impacts Under Alternative 2

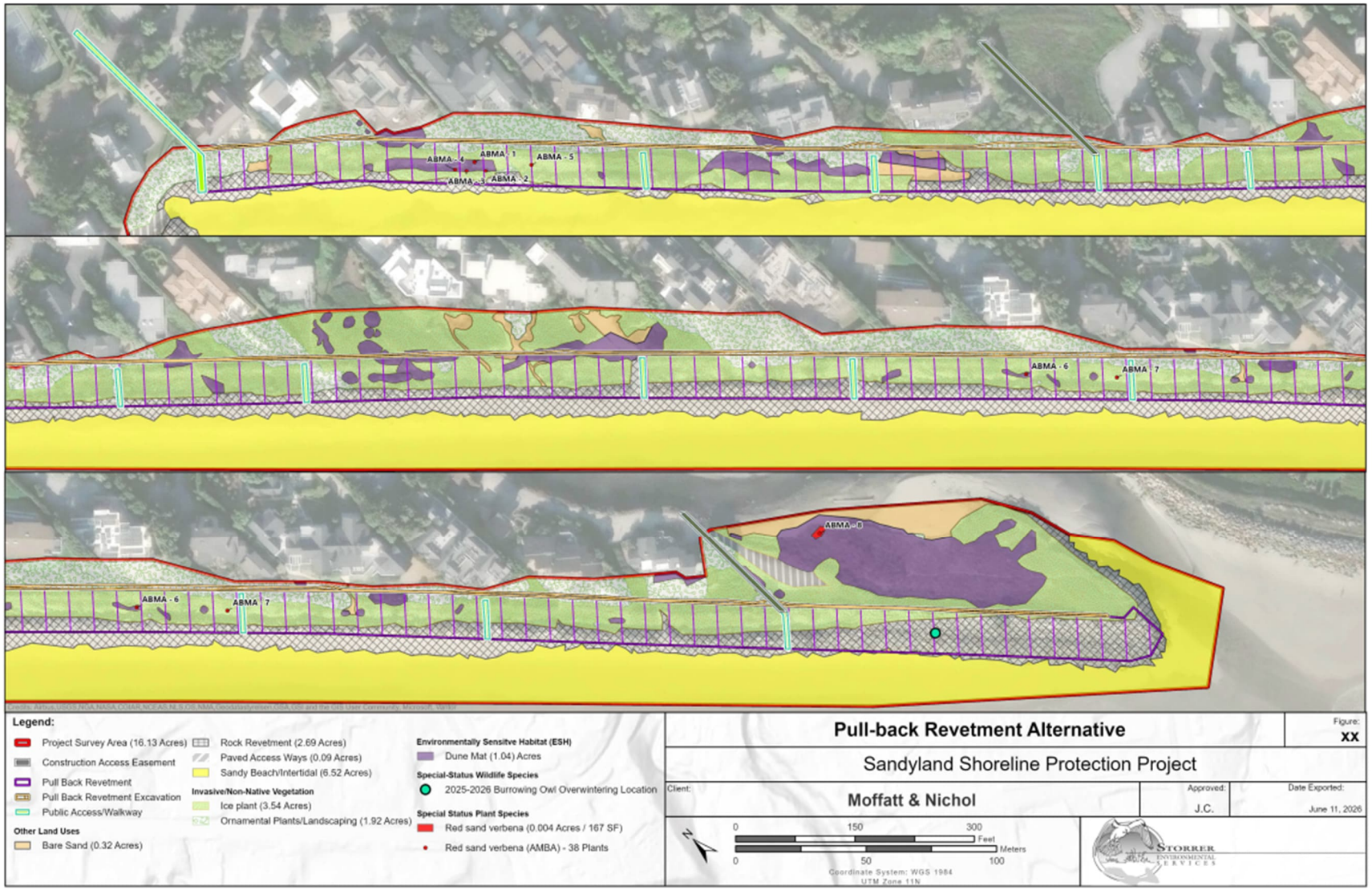


Figure 4-10. Potential Biological Impacts Under Alternative 2

Greenhouse Gases and Climate Change

When compared to the proposed Project and Alternative 1, Alternative 2 would result in greater construction-related impacts in the near term, given the estimated 50,000 tons of imported rock and 10,000 tons of exported rock (in comparison to the proposed Project import amount of 15,000 tons). This would result in a greater number of construction haul trucks, haul truck emissions, and a much longer construction schedule. The construction-related GHG emissions resulting from the proposed Project would be primarily associated with the use of off-road construction equipment and on-road vehicles (e.g., excavators, front-end loaders, haul trucks). Given the over tripling of imported material for construction, it can be conservatively estimated that this alternative would result in over triple the amount of short-term criteria pollutant emissions (6.2 MT CO_2e per year under the Project; at least 18.6 MT CO_2e per year under Alternative 2). However, these anticiapted GHG emissions would be highly negible in the context of the County's estimated annual GHG inventory (1.4 million MT CO_2e in 2018) and would not result in a significant impact on the environment or conflict with applians plans or policies. Therefore, impacts related to GHGs under this alternative would be more adverse than those described for the proposed Project in Section 3.5, *Greenhouse Gases and Climate Change,* but impacts would remain *insignificant*.

Hazards and Hazardous Materials

When compared to the proposed Project and Alternative 1, Alternative 2 has the potential to result in greater construction-related impacts in the near term, given the 50,000 tons of imported rock and 10,000 tons of exported rock (in comparison to the proposed Project import amount of 15,000). Alternative 2 would result in similar types of construction activities as the proposed Project, but would result in a greater extent of construction and much longer construction schedule. However, as discussed under Impact HM-1, routine transport is only anticipated during construction and would end following the completion of the repair and/or maintenance activities (refer to Section 3.6, *Hazards and Hazardous Materials*). Hazardous material use on the site would be limited to small quantities of fuels and lubricants that are typical of construction sites. BMPs would be used to limit the possibility of inadvertent release of these materials. It is not anticipated that disposal of hazardous materials beyond typical construction/demolition debris would be required. Any construction debris would be disposed of at an approved facility (based on debris type) and in accordance with all applicable regulations. There would be no significant hazard to the public or environment once construction has been completed. Therefore, impacts related to hazardous materials under this alternative would be more adverse than those described in Section 3.6, *Hazards and Hazardous Materials,* but impacts would remain *insignificant*.

Hydrology, Water Quality, and Coastal Processes

This alternative would pull-back the revetment toe line landward to the 1964 revetment design toe line, a revetment footprint shift of approximately 18 feet landward. The new pull-back revetment would have a 2-feet higher crest elevation (+18.4 feet NAVD88) than the existing 1983 design to afford approximately the same level of wave overtopping protection as the existing revetment with the swale and splash wall. This alternative also includes allowance for future SLR adaptation measures (e.g., additional rock import of up to 41,000 tons to raise the crest elevation to accommodate future SLR of up to 2.8 feet). Repairs and SLR adaptation measures would be triggered based on wave overtopping and flood damage to the homeowners' property and public accessways occurring more than once per year. The analysis under Impact HYD-4 demonstrates that the revetment does protect the homes in

the Sandyland community from coastal flooding and inundation from the Pacific Ocean (refer to Section 3.7, *Hydrology, Water Quality, and Coastal Processes*). Due to the excavation and removal of the entire existing revetment, potential impacts to ocean water quality would be significantly increased. Therefore, impacts related to hydrology, water quality, and coastal processes under this alternative would be more adverse than those described in Section 3.7, *Hydrology, Water Quality, and Coastal Processes,* but impacts would remain *insignificant*.

Land Use and Planning

Development associated with the proposed Project and Alternative 2 may involve potential habitat disturbances, vegetation clearing (Section 3.4, *Biological Resources*), temporary erosion and runoff, water quality impacts (Section 3.9, *Hydrology, Water Quality, and Coastal Processes*), and visual resource impacts (Section 3.1, *Aesthetics and Visual Resources*). Construction and operation of new development could also result in the generation of new criteria air pollutant emissions and GHG emissions (Section 3.3, *Air Quality* and Section 3.7, *Greenhouse Gases and Climate Change*, respectively). Nevertheless, preliminary analysis indicates that the proposed Project is potentially consistent with the goals and policies established in the County's plans and ordinances (refer to Table 3.8-2 in Section 3.8, *Land Use and Planning*). Alternative 2 would result in similar consistency with policies given the similar scale and nature of proposed improvements. Regarding quality-of-life impacts, this alternative would result in greater impacts to aesthetics and visual resources, air quality, noise, and transportation due to the greater amount of imported materials and increased construction duration and footprint. However, these impacts would be temporary, and the increase in impacts is not anticipated to be substantial. Implementation of Alternative 2 would, however, result in potential impacts to residential uses as a result of relocating the revetment further inland, encroaching into residential yard space and potentially loss of private amenities or impacts to residential and yard structures. Therefore, impacts related to land use and planning under this alternative would be slightly more adverse than those described in Section 3.8, *Land Use and Planning,* but impacts would remain *insignificant*.

Noise

Given the additional 50,000 tons of imported rock and 10,000 tons of exported rock (in comparison to the proposed Project import amount of 15,000), Alternative 2 will result in a significantly longer construction duration than described for the proposed Project and Alternative 1. Similar to the proposed Project, temporary construction-related noise would be generated from the relocation and construction of the revetment and improvements to coastal access. Based on USEPA guidelines, the noise level associated with heavy construction equipment typically averages approximately 95 dBA at 50 feet from the source (refer to Section 3.9, *Noise*). To mitigate this short-term, temporary, construction-related impact, the County's *Thresholds and Guidelines Manual* requires that construction within 1,600 feet of sensitive receptors be limited to weekdays between the hours of 8:00 A.M. to 5:00 P.M. However, given the physical conditions within the Project site (e.g., tides, wave action, etc.) it would be infeasible to limit construction activities from 8:00 A.M. to 5:00 P.M. without major disruptions to the schedule, extending the total construction duration. Peak sound levels associated with construction equipment would occur sporadically throughout the workday. Implementation of MM NOI-1 and MM NOI-2 would continue to be required to reduce impacts. Nevertheless, noise levels under this alternative would be greater than the proposed Project due to close proximity of equipment to residential structures and substantially greater construction

activities. Impacts would be more adverse than those described in Section 3.9, *Noise,* and impacts would remain *significant and unavoidable.*

Recreation

This alternative is to pull-back the revetment toe line landward to the 1964 revetment design toe line, a revetment footprint shift of approximately 18 feet landward. The landward relocation of the revetment would create additional sandy beach area available for lateral public access, recreation, and other public use as compared to the proposed Project. However, the duration for which this additional beach area would remain in place would be dependent on a multitude of coastal process factors and likely seasonal (refer to Section 3.9, *Hydrology, Water Quality, and Coastal Processes*). Further, as described in Section 3.10, *Recreation*, while access from the north would continue to be limited due to existing rock revetments constructed to protect private residences of the Casa Blanca Beach Estate Owners Association, and access from the south would continue to be limited by the mouth of the Carpinteria Salt Marsh and Santa Monica Creek. While the unnamed beach fronting the revetment would be wider, shoreline public access would continue to only be possible during periods of low tides. Similar to the proposed Project and Alternative 1, Sand Point Road would remain a private, gated access road that would limit the ability of the public to access the unnamed beach via the proposed public access easement and stairway.) Overall impacts related to recreation under this alternative would be more beneficial than those described in Section 3.10, *Recreation* due to the increase in public beach area; nevertheless, impacts would remain *beneficial / insignificant*.

Transportation

When compared to the proposed Project and Alternative 1, Alternative 2 would result in greater construction-related impacts in the near term, given the additional 50,000 tons of imported rock and 10,000 tons of exported rock (in comparison to the import amount of approximately 15,000 tons associated with the proposed Project) of armor and underlayer rock. Given the increased amount of imported material for construction, it is likely that this alternative would require a much greater amount of construction haul trucks, thereby impacts to traffic levels and the amount of large construction equipment along Sand Point Road and increasing potential for construction-related traffic conflicts or hazards. Impacts to circulation, the presence of hazards related to equipment on narrow roads, and emergency access would only be associated with temporary construction. No impact would occur following construction. Implementation of MM TT-1 would continue to be required to reduce impacts. Therefore, impacts related to transportation under this alternative would be more adverse than those described in Section 3.11, *Transportation,* but impacts would remain *significant but mitigable.*

Conclusion and Relationship to Project Objectives

Overall, Alternative 2 would meet all Project Objectives. Alternative 2 would remove the entire existing 3,700-foot-long revetment and rebuild it approximately 18 feet landward, requiring the import of approximately 50,000 tons of rock and export of 10,000 tons of existing smaller (undersized) rock. The level of shoreline protection and public access would be approximately the same as for the proposed project, i.e., it would meet Objectives 1, 2, 3, and 5. However, given Alternative 2 would not implement dune vegetation enhancement and would result in greater impacts to existing biological resources, Alternative 2 is not considered to meet Project Objective 4.

When compared to the proposed Project, this alternative will result in greater construction-related impacts in the near term, given the increased construction area and area of disturbance, increased proximity of construction activities to sensitive residential uses, increased construction duration, and substantial increases in the amount of rock material import and associated haul truck trips. Under this alternative, impacts related to aesthetics and visual resources, air quality, GHGs and climate change, biological resources, hazards and hazardous materials, land use and planning, water quality, noise, and transportation would be more adverse than the proposed Project. Impacts to recreation would be more beneficial when compared to the proposed Project due to the increase in beach area and the potential increase in lateral and alongshore access, at least for the near-term period of time with current sea levels and summer seasons.

4.7 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(E)(2) requires that an analysis of alternatives identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the project site and its surrounding environment.

Table 4-1 below compares the environmental impacts of the proposed Project and the alternatives considered for full analysis. Of the alternatives considered, the No Project Alternative eliminates the short-term, temporary, construction-related impacts identified for the proposed Project; therefore, it is environmentally superior to any project that would lead to a change in existing conditions. However, the No Project Alternative would not achieve any of the Project Objectives. The revetment would remain in need of substantial repairs and would not be restored to current coastal engineering standards. As such, the No Project Alternative would not meet the primary intent of the proposed Project to ensure continued shoreline protection of surrounding residential properties and future adaption to SLR hazards. Further, CEQA Guidelines Section 15126.6 also states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

According to CEQA Guidelines Section 15126.6(a), the purpose of an alternatives analyses is to identify alternative developments that would feasibly attain most of the basic objectives of the proposed Project but that would avoid or substantially reduce any of the significant effects of the proposed Project.

Alternative 1 would improve upon the 1983 design by proactively raising the crest elevation to +19 feet NAVD88 (an increase in height of 2.6 feet to the 1983 design revetment) to accommodate future sea level rise of up to approximately 1.7 feet. The additional rock footprint required for the crest elevation increase would be within the existing swale area. While this alternative would repair the revetment and protect against current and future SLR hazards, this alternative would require an additional 16,000 tons of armor rock to raise the crest elevation as compared to the proposed Project. As such, this alternative would result in slightly more adverse construction-related impacts related to aesthetics and visual resources, air quality, biological resources, GHGs and climate change, hazards and hazardous materials, land use and planning, noise, and transportation.

Alternative 2 would remove the existing revetment in its entirety and relocate (pull-back) the revetment toe line landward to the 1964 revetment design toe line, a revetment footprint shift of approximately 18 feet landward. The new pull-back revetment would have a 2-foot higher crest

elevation (+18.4 feet NAVD88) than the existing 1983 design to afford approximately the same level of wave overtopping protection as the existing revetment with the swale and splash wall. However, this alternative would not implement dune vegetation enhancement. This alternative would result in additional import of armor rock (more than both proposed Project and Alternative 1) and would result in a greater construction area and area of disturbance, as well as place construction activities in closer proximity to noise-sensitive residential uses and much longer construction duration. As such, this alternative would result in more adverse construction-related impacts related to aesthetics and visual resources, air quality, GHG emissions and climate change, biological resources, cultural and tribal cultural resources, hazards and hazardous materials, land use and planning, water quality, noise, and transportation. Impacts to recreation would be slightly more beneficial when compared to the proposed Project.

Other than the No Project Alternative, none of the alternatives would result in less adverse impacts when compared to the proposed Project. Significant and unavoidable construction-related noise impacts would continue to occur under Alternative 1 and Alternative 2, and would in fact be more adverse when compared to the proposed Project. Thus, the proposed Project is considered the Environmentally Superior Alternative because it would achieve all of the Project Objectives and would result in a lesser degree of impacts when compared to Alternative 1 and Alternative 2.

Table 4-1. Comparison of Project Alternatives

Environmental Resource	Proposed Project	No Project Alternative	Alternative 1 — Repair and Improve Existing Revetment within 1983 Design Footprint	Alternative 2 — Pullback Revetment
Aesthetics and Visual Resources	Insignificant	Less Adverse	Slightly More Adverse	Slightly More Adverse
Air Quality	Insignificant	Less Adverse	Slightly More Adverse	More Adverse
Biological Resources	Potentially Significant but Mitigable / Beneficial	Less Adverse / Less Beneficial	More Adverse / Less Beneficial	More Adverse / Less Beneficial
Cultural and Tribal Cultural Resources	Potentially Significant but Mitigable	Less Adverse	Similar	Slightly More Adverse
Greenhouse Gases and Climate Change	Insignificant	Less Adverse	Slightly More Adverse	More Adverse
Hazards and Hazardous Materials	Insignificant	Less Adverse	Slightly More Adverse	More Adverse
Hydrology, Water Resources, and Coastal Processes	Insignificant / Beneficial	Less Adverse / Less Beneficial	Slightly Less Adverse	More Adverse
Land Use and Planning	Insignificant	Less Adverse	Slightly More Adverse	Slightly More Adverse
Noise	Significant and Unavoidable	Less Adverse	Similar	More Adverse
Recreation	Insignificant	Similar	Similar	More Beneficial
Transportation	Potentially Significant but Mitigable	Less Adverse	Slightly More Adverse	More Adverse
Meets Project Objectives?	Yes	No	Yes	Partially
Reduce Significant and Unavoidable Impacts?	--	Yes	No	No

Chapter 5
Other CEQA Considerations

This section presents the evaluation of additional considerations required by the California Environmental Quality Act (CEQA) that are not covered within the other sections of this Environmental Impact Report (EIR) for the proposed Sandyland Shoreline Protection Project (Project). CEQA Guidelines Section 15126 requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. Accordingly, in addition to the analysis provided in Chapter 3, *Environmental Impact Analysis*, this EIR must identify growth-inducing impacts and significant irreversible environmental changes that would potentially result from implementation of the proposed Project. Accordingly, other CEQA considerations include significant unavoidable environmental effects of the proposed Project, significant irreversible environmental changes, growth-inducing impacts (including removal of obstacles to growth), and resource areas that are found not to be significant.

5.1 Significant Unavoidable Environmental Effects

CEQA Guidelines Section 15126.2(b) requires that an EIR describe any significant impacts that cannot be avoided, even with implementation of feasible mitigation measures. Where there are significant impacts, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

Based on the analysis presented in this EIR, implementation of the proposed Project would not result in the creation of any significant and unavoidable impacts. Where potentially significant impacts have been identified, feasible mitigation measures have been identified that would reduce the impacts of the proposed Project to a significant but mitigable level.

5.2 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires a discussion of:

> "*...significant irreversible environmental changes which would be caused by the proposed project should it be implemented. Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*"

Analysis of environmental impacts of the proposed Project considers effects on the environment from the proposed Project. The proposed repair and maintenance of the existing 3,700-foot-long revetment would not require development of additional structures, facilities, or utility extensions. Short-term construction activities and future maintenance activities under the proposed Project would entail the commitment of non-renewable energy resources; human resources; and small amounts of other

resources such as armor stone and sand, which are non-renewable or locally limited resources. However, consumption of such resources would be short-term and temporary. Further, compliance with all applicable State and County regulations would ensure that natural resources are conserved to the maximum extent feasible. While initial repair activities and future maintenance activities anticipated to occur under the proposed Project would result in the irretrievable commitment of non-renewable energy resources (primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline for automobiles and construction equipment), consumption of such resources is associated with any development in the region, and is not unique or unusual to the proposed Project.

As described further in Section 3.6, *Hazards and Hazardous Materials*, the proposed Project would not be expected to result in environmental accidents that have the potential to cause irreversible damage to the natural or human environment. While construction and long-term maintenance of the shoreline protection device would result in the limited use, transport, storage, and disposal of common hazardous materials associated with construction equipment, all activities would comply with applicable Federal and State laws related to hazardous materials transport, use, and storage, which would significantly reduce the likelihood and severity of accidents that could result in irreversible environmental damage. Overall, the irreversible environmental changes that would result from the implementation of the proposed Project would be *insignificant*.

5.3 Growth-Inducing Impact Analysis

CEQA Guidelines Section 15126.2(d) requires consideration of a project's potential to foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. This potential economic or population growth is known as the project's growth-inducing impact and is distinguished from the direct economic, population, or housing growth of a project because it is an indirect result of implementation of a project that would not have taken place in the absence of the project and that exceeds planned growth. Growth inducement can be a result of new development that increases employment levels, removes barriers to development, or provides resources that lead to secondary growth. Some projects may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Induced growth in any area should not be assumed to be necessarily beneficial, detrimental, or of little significance to the environment. It should, however, be analyzed for an understanding of how it could potentially affect the surrounding environment.

Growth-inducing impacts are caused by those characteristics of a project that tend to foster or encourage population, either directly or indirectly. Indirect inducements to growth include the establishment of infrastructure or other conditions at a project site that would potentially lead to growth in surrounding areas or growth of a certain type of use. The proposed Project would not include development of new utility infrastructure. Similarly, the proposed Project would not include development of new roadways or other expansions to the existing regional transportation system.

Short-term construction-related employees are expected to be hired from the local labor force and would therefore generate little, if any, short-term or long-term population increases. Similarly, maintenance activities would require only a few employees which could be hired from the existing local labor market. The proposed Project would not result in a new significant creation or need for new housing or additional development in the county.

Ultimately, the potential for development and population growth within the county would be negligible. Therefore, the effects of the proposed Project on growth inducement would be *insignificant*.

5.4 Effects Not Found to be Significant

CEQA Guidelines Section 15128 requires a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and, therefore, were not discussed in detail in the EIR. For this EIR, issues related to agricultural and forestry resources, energy, mineral resources, population and housing, public services, utilities, and wildfire were found not to be significant as discussed below.

Agricultural and Forestry Resources

The proposed Project would not have the potential for significant impacts associated with agricultural and forestry resources. The Project site is located on a beach and does not contain soils that have been designated as prime or unique agricultural soils. Agricultural activities have not historically occurred at the Project site and no conflicts with agricultural zoning or Williamson Act contracts would occur. Similarly, no forest lands exist on the Project site or in the surrounding vicinity. Therefore, implementation of the proposed Project would not convert or result in the loss of agricultural or forestry lands.

Energy

The proposed Project would not have the potential for significant impacts to energy resources. The proposed Project would repair and improve the existing seawall and would not involve long-term operational energy consumption or generation. Short-term temporary construction activities, lasting for a period of 6 to 7 months, would not impact energy resources due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Mineral Resources

The proposed Project would not have the potential for significant impacts associated with mineral resources. The Project site is not located within a mineral resources area as identified by the County Comprehensive Plan. The nearest mine is the Ellwood Ranch Quarry located over 20 miles west of the Project site just outside of the City of Goleta. Therefore, implementation of the proposed Project would not disrupt substantial mining operations. No impact related to mineral resources would occur.

Population and Housing

The proposed Project is not expected to induce substantial population growth in the county because it would not involve development of residential units or facilitate substantial employment growth. No existing housing or population would be displaced. The proposed Project could generate short-term employment opportunities during construction, which would draw most workers from the existing regional workforce. Any additional employment opportunity associated with long-term maintenance of the revetment would have a negligible effect on employment in the county. Therefore, the proposed Project would not be considered growth-inducing as it would not substantially affect short- or long-

term employment opportunities, and would not introduce additional permanent populations or encourage future growth.

Public Services

The proposed Project would not require the construction of new or physically alter existing governmental facilities. Proposed improvements under the proposed Project would not introduce new permanent residential populations. The limited development proposed under repair and improvement of the existing shoreline protection device would not trigger the need for new, or expanded fire services, police services, schools, parks, or associated facilities. Recreation and beach access is described in Section 3.10, *Recreation*. No impacts to public service facilities would occur.

Utilities

The proposed Project is not expected to cause substantial impacts to utilities. Repair and improvement of the existing revetment would not require the construction or new expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. However, the proposed repair of the revetment would continue to protect the existing utility infrastructure serving the existing 25 residential properties within the Sand Point residential neighborhood. Implementation of the proposed Project would not increase water consumption, wastewater generation or require additional water treatment. The proposed Project would re-salvage existing armor rock to refill revetment voids to the extent practicable. As such, solid waste and trash generated from construction activities would be minimal and would not exceed capacity of local infrastructure or impair the attainment of solid waste reduction goals. All initial repair and future maintenance activities would comply with Federal, State, and local management and reduction statutes and regulations related to solid waste.

Wildfire

The Project site is located along the coast in unincorporated Santa Barbara County, approximately 1.4 miles from the nearest designated High or Very High Fire Hazard Severity Zone (FHSZ) associated with the Santa Ynez Mountains. Repair and improvement of the existing Seawall would not exacerbate wildfire risks. The proposed Project is located on a private beach and would not change or block an existing evacuation route or an existing emergency evacuation plan. The proposed Project would not involve installation of any infrastructure such as roads, power lines, or other facilities that would exacerbate wildfire risk or result in temporary or ongoing impacts to the environment. The Project site is not located on a significant slope and would not result in increased structural, or population hazards associated with post-fire slope instability or drainage alterations. No wildfire impacts would occur.

Chapter 6
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Chapter 7
References

Section 3.1, Aesthetics and Visual Resources

California Department of Transportation (Caltrans). 2019. State Scenic Highway Program. Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

Caltrans. 2008. Scenic Highway Guidelines. Available at: https://www.cahighways.org/caltrans-resources/scenic/120412-scenic_highway_guidelines.pdf

County of Santa Barbara. 2009a. Open Space Element. Available at: http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/OpenSpace.pdf

County of Santa Barbara. 2009b. Scenic Highways Element. Available at: http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/ScenicHwys.pdf

County of Santa Barbara Planning and Development. 2022. Draft Mitigated Negative Declaration, Sanddew Residence. Available at: https://files.ceqanet.lci.ca.gov/282943-1/attachment/BMw_YiRV13XZbgu2Cre7339jVzUs7eZEUicYCbNVp_Y1FCr0ebx4FFR76empo9E22NdY17UeSBfm-hD80

Section 3.3, Biological Resources

Althouse and Meade, Inc. (Althouse & Meade). 2013. Delineation of Potentially Jurisdictional Wetlands and Waters for 755 Sand Point Road, Carpinteria, Santa Barbara County, California. March 15, 2013, Revised May 27, 2013.

Althouse & Meade. 2018. Native Plant Restoration and Habitat Enhancement Plan for 755 Sand Point Road. January 6.

Althouse & Meade. 2021. Biological Report for Sanddew, 501 Sand Point Road, Carpinteria, Santa Barbara County, California. November 2020, Edited September 2021.

Audubon-CCBER. 2025. Santa Barbara County Breeding Bird Study. Accessed at: https://santabarbaraaudubon.org/santa-barbara-county-breeding-bird-study/.

California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB) 2025. Natural Heritage Division. Sacramento, California. Available at: http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

California Department of Fish and Wildlife (CDFW). 2025a. Special Animals List. Periodic publication. 51 pp.

California Department of Fish and Wildlife (CDFW). 2025b. California Grunion Facts and Expected Runs. Available at: https://wildlife.ca.gov/Fishing/Ocean/Grunion.

California Herps.com. 2025. A Guide to Amphibians and Reptiles of California. Available at: https://www.californiaherps.com/lizards/pages/a.pulchra.html

California Invasive Plant Council (Cal-IPC). 2025. California Invasive Plant Inventory Database. Berkeley, CA. Available at: https://www.cal-ipc.org/plants/inventory/.

California Native Plant Society (CNPS), Rare Plant Program. 2025a. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available at: http://www.rareplants.cnps.org.

California Native Plant Society (CNPS). 2025b. *A Manual of California Vegetation Online*. Available at http://vegetation.cnps.org/.

County of Santa Barbara. 2013. Final Environmental Impact Report (FEIR) for the Goleta Beach County Park Managed Retreat Project [12EIR-00000-00004]. Prepared with assistance from AMEC Environmental & Infrastructure, Inc. (Case Numbers 11DVP-00000-00016 and 11CDP-00000-00069).

County of Santa Barbara Planning and Development Department (County). 2019. Santa Barbara County Comprehensive Plan. Coastal Land Use Plan. Adopted 1982. Republished June 2019.

County of Santa Barbara Department of Planning and Development Department (County). 2021. County of Santa Barbara Environmental Thresholds and Guidelines Manual. Revised/Published January 2021.

Hockman, E. 2025. U.S. Fish And Wildlife Service (USFWS) Migratory Bird Permit Office. permitsR8MB@fws.gov. Email correspondence on May 21, 2025.

Moffatt & Nichol. 2024. Sandyland Seawall Coastal Hazards Assessment. Prepared for the County of Santa Barbara Public Works Department. August 6.

National Oceanic and Atmospheric Administration (NOAA). 1998. Essential Fish Habitat: New Marine Fish Habitat Conservation Mandate for Federal Agencies. National Marine Fisheries Service, Habitat Conservation Division. Southwest Regional Office. November 1998.

Natural Resources Conservation Service (NRCS). 2025. Web Soil Survey – Santa Barbara County, South Coastal Part. Available at: http://websoilsurvey.nrcs.usda.gov/.

Robinson, T.H. 2025. Senior Resources Scientist, Fisheries Division Manager. Cachuma Operations and Maintenance Board. Email correspondence on June 20, 2025.

Storrer Environmental Services, LLC (SES). 2018. Revised Biological Resources Assessment for 711 Sand Point Road (APN 005-460-046), Santa Barbara County, California. October 2018.

Storrer Environmental Services, LLC (SES). 2025. Biological Resources Assessment Sandyland Shoreline Protection Project, Santa Barbara County, California. May 30.

U.S. Army Corps of Engineers (USACE). 2007. *E. Definitions* (p. 11196) Federal Register. Vol. 72, No. 47. 11092-11198. March 12, 2007.

U.S. Fish and Wildlife Service (USFWS). 2025a. Endangered Species Database. Available at: http://www.fws.gov/endangered/.

USFWS. 2025b. Critical Habitat Portal. Available at: http://criticalhabitat.fws.gov/crithab/.

USFWS. 2025c. National Wetlands Inventory (NWI). Available at: https://www.fws.gov/wetlands/Data/Mapper.html.

U.S. Geological Survey (USGS). 2025. National Hydrography Dataset and Watershed Boundary Dataset. Available at: http://nhd.usgs.gov/index.html.

Western Regional Climate Center (WRCC). 2025. Santa Barbara Municipal Airport. Period of Record Monthly Climate Summary. Available at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7905.

Section 3.4, Cultural and Tribal Cultural

County of Santa Barbara. 2024a. Historic Landmarks. Available at: https://www.countyofsb.org/1659/Historic-Landmarks

County of Santa Barbara. 2024b. Places of Historic Merit. Available at: https://www.countyofsb.org/1683/Places-of-Historic-Merit

County of Santa Barbara Surveyor. 2008. *Santa Barbara County Rancho Map*. Available at: http://cosb.countyofsb.org/pwd/Surveyor/downloads/Ranchos.pdf

Erlandson, J.M. 1993. *Cultural Setting. In Archaeological Investigations at CA SBA 1731: A Transitional Middle-to-Late Period Site on the Santa Barbara Channel, edited by Jon Erlandson and Joyce Gerber. Dames & Moore, Santa Barbara, California. Submitted to Exxon Company, Goleta, California*.

Erlandson, J.M., Cooley, T.G. and R. Carrico. 1987. *A Fluted Projectile Point Fragment from the Southern California Coast: Chronology and Context at CA SBA 1951. Journal of California and Great Basin Anthropology*, 9: 120–128.

Glassow, M.A. 1996. *Purisimeño Chumash Prehistory: Maritime Adaptations along the Southern California Coast. Case Studies in Archaeology. Jeffrey Quilter, series editor*. Harcourt Brace College Publishers, San Diego.

Glassow, M.A. 1990. *Archaeological Investigations on Vandenberg Air Force Base in Connection with the Development of Space Transportation System Facilities, with contributions by Jeanne E. Arnold, G. A. Batchelder, Richard T. Fitzgerald, Brian K. Glenn, D. A. Guthrie, Donald L. Johnson, and Phillip L. Walker. Department of Anthropology, University of California, Santa Barbara*. Submitted to U.S. Department of the Interior, National Park Service, Western Region Interagency Archeological Services Branch, San Francisco, Contract No. CX-8099-2-0004.

Glassow, M.A., Wilcoxon, L., and J. Erlandson. 1988. *Cultural and environmental change during the early period of Santa Barbara Channel prehistory. The Archaeology of prehistoric coastlines, edited by G. Bailey and J. Parkington*, pp. 64–7. Cambridge University Press, New York.

Governor's Office of Planning and Research (OPR). 2005. State of California Tribal Consultation Guidelines. Supplement to General Plan Guidelines. November. Available at: https://lci.ca.gov/docs/011414_Updated_Guidelines_922.pdf

King, C.D. 1990. *Evolution of Chumash Society: A Comparative Study of Artifacts Used for Social System Maintenance in the Santa Barbara Channel Region before A.D. 1804. The Evolution of North American Indians, edited by David Hurst Thomas. Garland, New York*.

Kroeber, A.L. and F. Putnam. 1911. *American Archaeology and Ethnology; the Chumash and Costanoan Languages- Kroeber, A. L.*. University of California Publications.

Landberg, L.C.W. 1965. *The Chumash Indians of Southern California. Southwest Museum Papers 19. Los Angeles. Latis, D.W., Steiner R., and Karinen A.E. 197*.

Lebow, C.G., Harro, D.R., McKim, R.L., and C. Denardo. 2001. *Archaeological Excavations at CA SBA 246, An Early Holocene Site on Vandenberg Air Force Base, Santa Barbara County, California*. Applied EarthWorks, Inc., Fresno, California, for Tetra Tech, Inc., Santa Barbara, California. Submitted to 30 CES/CEV, Vandenberg Air Force Base, California, USAF Contract No. F04684-95-C-0045.

National Park Service (NPS). 2025. National Historic Landmarks. Available at: https://www.nps.gov/subjects/nationalhistoriclandmarks/list-of-nhls-by-state.htm#onthisPage-4

Native American Heritage Commission (NAHC). 2025. State Laws and Codes. Available at: https://nahc.ca.gov/codes/state-laws-and-codes/

Office of Historic Preservation (OHP). 2025. Santa Barbara. Available at: https://ohp.parks.ca.gov/?page_id=21521

Rogers, D.B. 1929. *Prehistoric Man of the Santa Barbara Channel*, Santa Barbara Museum of Natural History.

Strudwick, I. 1985. *The Single-Piece Circular Fishhook: Classification and Chronology*. *Pacific Coast Archaeological Society Quarterly*, 21/2: 32–69.

Section 3.5, Greenhouse Gases and Climate Change

Brasher, L.T., Malone, L., and J.B. Nickerson. 2025. "Energy and the Environment: Fossil Fuel Extraction Is Encouraged, Clean Energy and Protections Are Under Review." Skadden. Available at: https://www.skadden.com/insights/publications/executive-briefing/energy-and-the-environment

California Natural Resources Agency (CNRA). 2018a. "California's Fourth Climate Change Assessment: Central Coast Region Report." Available at: http://www.climateassessment.ca.gov/about/

CNRA. 2018b. "Safeguarding California Plan: 2018 Update." Available at: https://resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf

California Air Pollution Control Officers Association (CAPCOA). 2008. "CEQA and Climate Change." Available at: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf

California Air Resources Board (CARB). 2017. "The 2017 Climate Change Scoping Plan Update." Available at: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf

CARB. 2020. "Top 4 Measurements and Days Above the Standard."

CARB. 2025. "GHG Global Warming Potentials | California Air Resources Board." Available at: https://ww2.arb.ca.gov/ghg-gwps

California Energy Commission (CEC). 2025. "Cal-Adapt." Available at: https://cal-adapt.org/tools/

County of Santa Barbara. 2024. "2030 Climate Action Plan." Available at: https://cosantabarbara.app.box.com/s/uz1b15s7uu3f03u6mzj6dujn73w7tyr3

County of Santa Barbara. 2021. "Climate Change Vulnerability Assessment." Available at: https://s3-us-west-2.amazonaws.com/mysocialpinpoint/uploads/redactor_assets/documents/8c4aa5d7d81a96f8896bce055b229c2e7ec3c010a9866b35a18b7ae86aef7067/44589/SantaBarbaraCounty_CCVA_Report_PublicDraft_withExecSummary__09-21-21_reduced.pdf

Intergovernmental Panel on Climate Change (IPCC). 2022. "Sixth Assessment Report Summary for Policymakers."

IPCC. 2013. "Climate Change 2013, The Physical Science Basis - Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change." Available at: http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf

Malone, L. 2025. "Trump Administration Rolls Back Climate Initiatives and Orders EPA To Set Sunset Dates for Regulations." Skadden. Available at: https://www.skadden.com/insights/publications/2025/04/trump-administrations-first-100-days/trump-administration-rolls-back-climate-initiatives

National Oceanic and Atmospheric Administration (NOAA). 2022. "Carbon Dioxide Now More than 50% Higher than Pre-Industrial Levels." Available at: https://www.noaa.gov/news-release/carbon-dioxide-now-more-than-50-higher-than-pre-industrial-levels

Santa Barbara County Air Pollution Control District (SBAPCD). 2022. "2022 Ozone Plan." Available at: https://www.ourair.org/wp-content/uploads/2022-Ozone-Plan.pdf

U.S. Environmental Protection Agency (USEPA). 2025. "About the Greenhouse Gas Reduction Fund." Available at: https://www.epa.gov/greenhouse-gas-reduction-fund/about-greenhouse-gas-reduction-fund

USEPA. 2024. "Climate Change Indicators in the United States, Fifth Edition." Available at: https://www.epa.gov/system/files/documents/2024-09/climate_indicators_2024.pdf

USEPA. 2023. "Climate Change Indicators: Ecosystems." Reports and Assessments. Available at: https://www.epa.gov/climate-indicators/ecosystems

USEPA. 2022. "Inventory of U.S. Greenhouse Gas Emissions and Sinks."

USEPA. 2020. "Air Quality - National Summary." 2020. Available at: https://www.epa.gov/air-trends/air-quality-national-summary

USEPA. 2016. "Climate Impacts on Water Quality." Overviews and Factsheets. Available at: https://www.epa.gov/arc-x/climate-impacts-water-quality

U.S. Global Change Research Program. 2017. "Climate Science Special Report: Fourth National Climate Assessment, Volume I." Available at: https://science2017.globalchange.gov/chapter/front-matter-about/

World Meteorological Organization. 2018. "WMO Greenhouse Gas Bulletin." Available at: https://library.wmo.int/doc_num.php?explnum_id=5455

Section 3.6, Hazardous Materials

County of Santa Barbara. 2023. Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan. Available at: https://content.civicplus.com/api/assets/ebc26205-512c-48d7-bca7-cfa0a18faa24

County of Santa Barbara. 2021. Environmental Thresholds and Guidelines Manual. Available at: https://cosantabarbara.app.box.com/s/vtxutffe2n52jme97lgmv66os7pp3lm5

County of Santa Barbara. 2009. Seismic Safety & Safety Element. County of Santa Barbara Planning and Development Department. Available at: https://content.civicplus.com/api/assets/f0b97ebb-c2c6-4f92-afd0-e04bf738537d

Earth Systems Associates. 2021. Proposed Single Family Residence, 501 Sand Point Road Carpinteria Area of Santa Barbara County, CA.

Environmental Data Resources, Inc. (EDR). 2025. The EDR Radius Map Report: Sandyland.

U.S. Environmental Protection Agency (USEPA). 2024. Superfund: CERCLA Overview. Available at: https://www.epa.gov/superfund/superfund-cercla-overview

Section 3.7, Hydrology, Water Quality, and Coastal Processes

BEACON. 2009. Coastal Regional Sediment Management Plan - Central Coast from Pt. Conception to Pt. Mugu.

California Coastal Commission (CCC). 2025. Critical Coastal Areas Map Viewer. Available at: https://experience.arcgis.com/experience/268e7af00a904510bac77312e0f39fc0/page/Page

CCC. 2024. Sea Level Rise Policy Guidance: Final Adopted 2024 Update.

California Coastal Conservancy. 2010. Coastal Lidar Project, Available at: https://www.fisheries.noaa.gov/inport/item/48166

California Ocean Protection Council. 2024. State of California Sea Level Rise Guidance: 2024 Science and Policy Update.

CFC. 2024. Sandyland Drone Lidar Survey March.

Central Coast Regional Water Quality Control Board (CCRWQCB). 2024. Water Quality Control Plan for the Central Coastal Basin, June 2024 Edition - Pending OAL Approval. California Environmental Protection Agency.

CCRWQCB. 2017. Staff report: Amending the Water Quality Control Plan for the Central Coastal Basin to adopt Total Maximum Daily Loads for nitrogen and phosphorus compounds in streams of the Franklin Creek watershed (Resolution No. R3-2018-0006). State of California.

County of Santa Barbara. 2019. Coastal Land Use Plan. Santa Barbara, CA.

County of Santa Barbara. 2009. Comprehensive Plan Conservation Element: Groundwater Resources Section. Santa Barbara, CA.

Dudek. 2019. Santa Barbara County Integrated Regional Water Management Plan. Santa Barbara, CA.

Earth Systems Associates. 2021. Proposed Single Family Residence, 501 Sand Point Road Carpinteria Area of Santa Barbara County, CA.

Federal Emergency Management Agency (FEMA). 2021. Guidance for Flood Risk Analysis and Mapping: Coastal Wave Runup and Overtopping.

Fugro. 2024. Geotechnical Desktop Report, Sandyland Seawall Design/Repair/Replacement Project, Santa Barbara County, CA.

Griggs, G. 2009. The Effects of Armoring Shorelines - The California Experience. Proceedings of a State of the Science Workshop, May 2009: U.S. Geological Survey Scientific Investigations Report 2010-5254, 77-84.

Griggs, G., Tait, J., and W. Corona. (1994). The Interaction of Seawalls and Beaches: Seven Years of Monitoring, Monterey Bay, California. Institute of Marine Sciences University of California, Santa Cruz.

GSI Water Solutions. 2024. Carpinteria Groundwater Basin Water Years 2021-2023 Annual Report. GSI Water Solutions on behalf of Carpinteria Groundwater Sustainability Agency. Morro Bay, CA

Hapke, C., and D. Reid. 2007. National Assessment of Shoreline Change, Part 4: Historical Coastal Cliff Retreat along the California Coast. U.S. Geological Survey.

Intergovernmental Panel on Climate Change (IPCC). 2019. The Ocean and Cryosphere in a Changing Climate.

Kraus, N., and W. McDougal. 1996. The Effects of Seawalls on Beaches: Part 1, An Updated Literature Review. Journal of Coastal Research, 691-701.

Moffatt & Nichol. 2025a. Coastal Hazards Assessment: Sandyland Shoreline Protection (Revised 2025). Long Beach, CA

Moffatt & Nichol. 2025b. Water Quality Assessment.

Moffatt & Nichol. 2006. Sand Point Uprush Study.

Patsch, K., and G. Griggs. 2008. A Sand Budget for the Santa Barbara Littoral Cell, California. Marine Geology.

Patsch, K., and G. Griggs. 2006. Littoral Cells, Sand Budgets, and Beaches: Understanding California's Shoreline.

State Water Resources Control Board (SWRCB). 2024. California 2024 Integrated Report (303[d] List/305[b]). Available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html

SWRCB. 2020. Final California 2020 Integrated Report (303[d] List/305[b]). Available at: waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_revised_final/apx-b/04300.shtml

SWRCB. 2017. California's Areas of Biological Significance (Map). Available at: https://www.waterboards.ca.gov/water_issues/programs/ocean/asbs_map.shtml

U.S. Army Corps of Engineers (USACE). 2024. SandSnap. Available at: https://sandsnap-erdcchl.hub.arcgis.com/

USACE. 2015. NCMP Topobathy Lidar DEM: California, Available at: https://www.fisheries.noaa.gov/inport/item/51862

USACE. 2009. NCMP Topobathy Lidar DEM: California, Available at: https://www.fisheries.noaa.gov/inport/item/67050

USACE. 1984. Shore Protection Manual Volume 2.

U.S. Environmental Protection Agency (USEPA). 2024. USEPA Review of California's 2024 CWA Section 303(d) List of Impaired Waters. U.S. Environmental Protection Agency, Region 9. San Francisco, CA.

U.S. Fish and Wildlife Service (USFWS). n.d. National Wetlands Inventory Mapper. Available at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

van der Meer. 2002. Wave Run-up and Overtopping at Dikes.

Ward. 1992. Prediction of Overtopping Rates for Irregular Waves on Riprap Revetments.

Willis, C., and Griggs, G. 2003. Reductions in Fluvial Sediment Discharge by Coastal Dams in California and Implications for Beach Sustainability

Section 3.8, Land Use and Planning

County of Santa Barbara. 2024. County of Santa Barbara Comprehensive Plan. Land Use Element. Available at: https://www.countyofsb.org/970/Land-Use

Section 3.9, Noise

Babisch, W. 2008. Road Traffic Noise and Cardiovascular Risk. Noise and Health, 10/38: 27–33.

Babisch, W. 2005. Guest Editorial: Noise and Health. Environmental Health Perspective, 113(1): A14–5.

California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. Available at: hhttps://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf

Caltrans. 2013. Vibration Guidance Manual. Available at: https://dot.ca.gov/programs/environmental-analysis/noise-vibration/guidance-manuals

Caltrans. 2002. California Airport Land Use Planning Handbook

California State Lands Commission (CSLC). 2014. Final Environmental Impact Report for the Revised PRC 421 Recommissioning Project.

CSLC. 2009. Final Environmental Impact Report for the Venoco Ellwood Marine 6 Terminal Lease Renewal Project. State Clearinghouse (SCH) No. 2004071075. 7 April.

County of Santa Barbara. 2024. Program Environmental Impact Report for the 2023-2031 Housing Element Update.

County of Santa Barbara. 2021. County CEQA Guidelines & Environmental Thresholds. Available at: https://www.countyofsb.org/740/County-CEQA-Guidelines-Environmental-Thr

County of Santa Barbara. 2009. Noise Element. Available at: https://cosantabarbara.app.box.com/

Federal Highway Administration (FHWA). 2006. Construction Noise Handbook. Available at: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September. Washington D.C.

Harris Miller Miller & Hanson Inc. 2006. Transit Noise and Vibration Impact Assessment, Final Report. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf

Kawada, T. 2004. The Effect of Noise on the Health of Children, Vol. 71. DOI: 10.1272/jnms.71.5

U.S. Environmental Protection Agency (USEPA). 1979. Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise. National Association of Noise Control Officials.

Section 3.10, Recreation

Coastwalk/California Coastal Trail Association. 2025. “Explore the Trail - Santa Barbara County.” 2025. Available at: https://californiacoastaltrail.org/southern-california/santa-barbara/

County Executive Office. 2022. “County of Santa Barbara Recommended Budget FY 2022-2023.”

Section 3.11, Transportation

Amtrak. 2025. Carpinteria, CA to Santa Barbara, CA. Available at: hattps://www.amtrak.com/tickets/departure.html

Associated Transportation Engineers. 2019. Traffic Assessment for the Santa Claus Lane Streetscape Improvement Project, County of Santa Barbara. Santa Barbara, CA.

County of Santa Barbara. 2023. Active Transportation Plan. County of Santa Barbara Public Works Department. Available at: https://content.civicplus.com/api/assets/11fcd3bc-c7f8-4022-8769-a34decd8cd6e

County of Santa Barbara. 2019. Final Mitigated Negative Declaration: Santa Claus Lane Beach Access and Streetscape Improvements Project. County of Santa Barbara, CA.

County of Santa Barbara. 1992. Circulation Element. Available at: https://www.countyofsb.org/962/Circulation

Santa Barbara County Association of Governments (SBCAG). 2022. Santa Barbara U.S. 101 Comprehensive Multimodal Corridor Plan. Santa Barbara, CA.