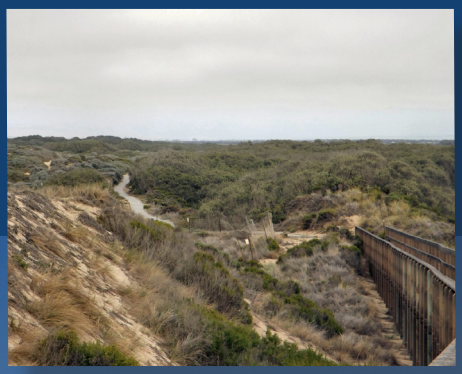

Final Environmental Impact Report

Habitat Conservation Plan for the Oceano Dunes District

Volume 1: EIR with Revised Text

May 2026

California Department of Parks and Recreation
Oceano Dunes District Habitat Conservation Plan
Final Environmental Impact Report

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Volume 1: EIR with Revised Text

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Prepared for:
California Department of Parks and Recreation
Oceano Dunes District
340 James Way, Ste. 270
Pismo Beach, CA 93449
(805) 773-7170

Prepared by:
MIG, Inc.
2055 Junction Avenue, Suite 205
San Jose, CA 95131
(650) 327-0429
www.migcom.com

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INTRODUCTION TO FINAL EIR

This document is the Final Environmental Impact Report (EIR) for the California Department of Parks and Recreation (CDPR) Oceano Dunes District Habitat Conservation Plan (HCP). In accordance with CEQA Guidelines Section §15132, this document together with the Comments and Responses on the Recirculated Draft EIR (Volume 2) and Technical Appendices (Volume 3) constitutes the Final EIR for the Oceano Dunes District HCP.

Per CEQA Guidelines section §15132, the Final EIR shall consist of:

a. The Draft EIR or a revision of the draft.
b. Comments and recommendations received on the Draft EIR either verbatim or in summary.
c. A list of persons, organizations, and public agencies commenting on the Draft EIR.
d. The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
e. Any other information added by the Lead Agency.

ENVIRONMENTAL REVIEW PROCESS

The Recirculated Draft EIR for the Oceano Dunes District HCP was distributed to public agencies and interested parties for a 60-day commenting period. The Recirculated Draft EIR was circulated between November 24, 2025, and January 23, 2026. The Recirculated Draft EIR and HCP documents were made available for review or downloaded from the following address: www.oceanoduneshcp.com. Hard copies were made available at the CDPR Oceano Dunes District office located at 340 James Way, Ste. 270, Pismo Beach, CA 93449. The Notice of Availability (NOA) of the Recirculated Draft EIR for public review was distributed to the California State Clearinghouse, state Responsible and Trustee Agencies, federal agencies, county clerks, local jurisdictions and interested individuals and organizations. The NOA was published in the San Luis Obispo Tribune, a newspaper of local circulation, as well as posted off site near the park entrance.

The CDPR Oceano Dunes District held a virtual public meeting to receive comment on the Recirculated Draft EIR on January 13, 2025. A recording of the meeting was made available at www.oceanoduneshcp.com. Oral comments received during that meeting are included with written comment received in Final EIR Volume 2.

Upon completion of the 60-day public review period, written responses to all significant comments raised with respect to the environment were prepared and incorporated into the Final EIR. Written responses to comments received from any state agency have been made available to those agencies at least 10 days before CDPR considers certification of the Final EIR. The comments and their responses will be considered by CDPR when deciding on whether to approve the proposed project.

CHANGES TO THE RECIRCULATED DRAFT EIR

CEQA anticipates that the public review process will elicit information that can result in modification of the project design and refined impact analysis to reduce potential environmental effects of the project. As provided in CEQA Guidelines section §15088.5, when significant new information is added to the EIR after public noticing of the Draft EIR, the document must be recirculated to give the public a meaningful opportunity for review. Significant new information

is defined as 1) a new significant environmental impact, 2) a substantial increase in the severity of an environmental impact requiring new mitigation, or 3) a feasible project alternative or mitigation measure considerably different from those previously analyzed that would clearly reduce environmental impacts. Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

The 2020 Draft EIR was revised and recirculated in 2025. The substantial changes made to the 2020 Draft EIR in the 2025 Recirculated Draft EIR is summarized in Final EIR Volume 1, section 1.7.

This Final EIR includes the following modifications to the Recirculated Draft EIR:

- Text changes throughout the document provide clarity to the analysis, make minor text corrections, or fix grammatical or typographic errors.
- References to Recirculated Draft EIR are changed to EIR or Final EIR to reflect finalization of document.

These revisions do not include substantive changes in the project description, environmental setting, conclusions of the environmental analysis, or in the mitigation measures proposed to be implemented or otherwise provide significant new information that would require recirculation of the Recirculated Draft EIR pursuant to CEQA Guidelines section §15088.5.

EIR ORGANIZATION

The Final EIR for the Oceano Dunes District HCP has the following organization:

Volume 1 **EIR with Revised Text.** This document contains the Recirculated Draft EIR with revisions incorporated into the text. Revisions were made in response to public comment in order to provide additional information, correct inaccuracies, and clarify the analysis. These changes are indicated in the EIR text by underlining new text and ~~striking out~~ removed text. Minor text corrections on the Recirculated Draft EIR are not shown in the printed Final EIR as tracked changes.

Volume 2 **Comments and Responses on Recirculated Draft EIR.** This document contains copies of the comment letters and email communications received on the Recirculated Draft EIR during the 60-day public review period, as well as a summary of the oral comments made during the CDPR Oceano Dunes District public meeting. A list of those who commented is provided at the front of the section. This section provides a written response by the CDPR as Lead Agency to each comment raising a substantive environmental issue during the Recirculated Draft EIR review process.

Volume 3 **Technical Appendices.** This document contains Technical Appendices A through E.

Together, Volumes 1 through 3 comprise the Final EIR for the Oceano Dunes District Habitat Conservation Plan.

VOLUME 1: EIR WITH REVISED TEXT

OCEANO DUNES DISTRICT HABITAT CONSERVATION PLAN ENVIRONMENTAL IMPACT REPORT

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ACRONYMS, ABBREVIATIONS, AND SYMBOLS

Acronym/Symbol	Full Phrase or Description
$\mu g/m^3$	Micrograms per cubic meter
AB	Assembly Bill
ALUP	Airport Land Use Plan
ALUC	Airport Land Use Commission
AMM	Avoidance and minimization measure
APCO	Air Pollution Control Officer
ARWP	Annual Report and Work Plan
ASI	American Safety Institute
ATV	All-terrain vehicle
BCC	Birds of conservation concern
CAAQS	California Ambient Air Quality Standards
CalEEMOD	California Emissions Estimator Model
CalVTP	California Vegetation Treatment Program
CARB	California Air Resources Board
CCC	California Coastal Commission
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Prevention
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CDPR	California Department of Parks and Recreation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFP	California fully protected
CFR	Code of Federal Regulations
CH_4	Methane
CHRIS	California Historical Resources Information System
CLTE	California least tern
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon monoxide
CRHR	California Register of Historical Resources
CRI	Cultural Resource Inventory
CRLF	California Red-legged Frog

Acronym/Symbol	Full Phrase or Description
CRPR	California Rare Plant Ranked
CSSC	California Species of Special Concern
CWA	Clean Water Act
CZLUO	Coastal Zone Land Use Ordinance
DPS	Distinct population segment
DRI	Desert Research Institute
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESHA	Environmentally Sensitive Habitat Area
FC	Candidate for federal listing
FE	Federally listed as endangered
FESA	Federal Endangered Species Act
FT	Federally listed as threatened
GHG	Greenhouse gas
GWP	Global Warming Potential
H_2S	Hydrogen sulfide
HCP	Habitat Conservation Plan
ITP	Incidental take permit
LCP	Local Coastal Program
MBTA	Migratory Bird Treaty Act
MCV2	Manual of California Vegetation, second edition
MRZ	Mineral Resource Zone
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NO	Nitric oxide
NO_2	Nitrogen Dioxide
NOAA Fisheries	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Oxides of nitrogen

Acronym/Symbol	Full Phrase or Description
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
NRP	Nipomo Regional Park
NWR	National Wildlife Refuge
O_3	Ozone
OHMVR	Off-highway motor vehicle recreation
OHV	Off-highway vehicle
PI-SWERL	Portable In-Situ Wind Erosion Lab
PM	Particulate matter
PMRP	Particulate Matter Reduction Program
PRC	Public Resources Code
PWP	Public Works Plan
ROG	Reactive organic gases
RUV	Recreational utility vehicle
RWQCB	Regional Water Quality Control Board
SAG	Scientific Advisory Group
SOA	Stipulated Order of Abatement
SB	Senate Bill
SCCAB	South Central Coast Air Basin
SHPO	State Historic Preservation Officer
SHRC	State Historical Resources Commission
SIP	State Implementation Plan
SLC	California State Lands Commission
SLO	San Luis Obispo
SLOAPCD	San Luis Obispo Air Pollution Control District
SMG	Strategic Marketing Group
SNPL	Western snowy plover
SO_2	Sulfur dioxide
SO_x	Oxides of sulfur
SPR	Standard Project Requirement
SRA	Sensitive Resource Area
ST	State listed as threatened
SVRA	State Vehicular Recreation Area
SWL	State Watch List

Acronym/Symbol	Full Phrase or Description
SWPPP	Storm Water Pollution Prevention Plan
SWPT	Southwestern pond turtle
State Water Board	State Water Resources Control Board
UAS	Unmanned aircraft system
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WHPP	Wildlife Habitat Protection Plan
WMP	Waterway Management Plan
WSF	Western spadefoot

SUMMARY

S.1 PROJECT DESCRIPTION

California Department of Parks and Recreation (CDPR or State Parks) manages and operates Pismo State Beach and Oceano Dunes State Vehicular Recreation Area (SVRA). Federally- and state-listed endangered or threatened species occur or potentially occur on the property, including western snowy plover (*Charadrius nivosus nivosus;* SNPL), California least tern (*Sternula antillarum browni;* CLTE), California red-legged frog (*Rana draytonii;* CRLF), and tidewater goby (*Eucyclogobius newberryi*), as well as six listed plant species. Two additional species that are federally proposed as threatened, southwestern pond turtle (*Actinemys pallida;* SWPT) and western spadefoot (*Spea hammondii;* WSF), occur in the area.

Therefore, CDPR has prepared a Habitat Conservation Plan (HCP) as part of its application for an incidental take permit (ITP), authorized under Sections ~~10(a)(1)(A) and~~ 10(a)(1)(B) of the federal Endangered Species Act (FESA). The HCP provides the basis for United States (U.S.) Fish and Wildlife Service (USFWS) issuance of a 25-year permit authorizing incidental take[1] of listed animal species under FESA.

S.1.1 Location and Site Description

The 5,005-acre HCP area includes two state park units—Pismo State Beach and Oceano Dunes SVRA—which are located in San Luis Obispo County, California. The HCP area is bounded by the City of Pismo Beach to the north, the Guadalupe-Nipomo Dunes National Wildlife Refuge (NWR) to the south, urban and agricultural land to the east, and the Pacific Ocean to the west. Primary access to the area is via U.S. Highway 101 and State Route 1.

S.1.2 HCP Covered Activities

Covered activities under the HCP include all activities for which CDPR has responsibility within the HCP area that could result in take of covered species. These activities include, but are not limited to, public use/recreation management, natural resources management, and park/beach management. The species selected for inclusion in the HCP are based on their potential to be affected by covered activities, their occurrence in the HCP area, and the species' listing status.

The HCP is based upon the conservation program that has been developed over time and is currently being implemented by CDPR at Pismo State Beach and Oceano Dunes SVRA. The HCP includes actions to achieve biological goals and objectives and relies on several types of conservation measures, including avoidance and minimization measures (AMMs), habitat enhancement, habitat restoration, habitat creation, and population enhancement. Protection of the covered species includes minimizing human alteration or disturbance of native habitats and reducing conflicts between covered species and park users. Monitoring would be used to inform decision-making and management strategies to ensure program effectiveness.

[1] *Take*, as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct." Harm is defined as "an act which actually kills or injures wildlife," including significant habitat modification or degradation "where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." *Take*, as defined under the California Endangered Species Act (CESA), is any action or attempt to "hunt, pursue, catch, capture, or kill."

Existing Activities. The HCP includes 52 covered activities divided into five categories: park visitor activities, natural resources management, park maintenance, visitor services, and other activities. The majority of these covered activities are existing visitor uses or park operations that have been occurring in the HCP area for decades. These existing activities are considered part of the baseline environmental conditions of the HCP area.

New Activities. In addition to existing activities, the HCP also includes new covered activities, which are either proposed now by CDPR as a modification to the current park operation or may be contemplated by CDPR in the future.

CDPR proposes the following new activities that are identified in the HCP for approval and therefore evaluated in this Environmental Impact Report (EIR):

- CA-12b:[2] SNPL chicks and eggs would be captured and sent to captive rearing if they cannot be reunited with an attending adult and are at risk of death or injury from covered activities not related to covered species management activities (e.g., motorized recreation, pedestrian recreation, new covered activities).
- CA-13: Salvage of stranded tidewater goby in Pismo and Arroyo Grande creeks would occur whenever there is potential for stranding. Salvage would be implemented as HCP mitigation to offset incidental take impacts on tidewater goby.
- CA-14: SWPT and WSF monitoring would occur and may include visual encounter surveys or other methodologies such as acoustic monitoring, e-DNA sampling, or funnel traps. Individuals could be relocated if determined at risk of harm.
- CA-16: Dune slack restoration on at least 0.75 acres would be implemented to offset incidental take impacts on CRLF, SWPT, and WSF.
- CA-17: Invasive predator control would expand beyond current levels and may include activities like crayfish trapping, bullfrog removal, or trapping red-eared sliders. Those activities could involve installing funnel traps, direct targeting of individuals, and other work in aquatic habitats.
- CA-21: Mechanical trash removal would occur through beach raking or grooming in heavily used areas at the Grande Avenue and Pier Avenue entrances and from orientation marker Post 2 south to Post 6 on a seasonal basis.
- CA-50: Seasonal fencing erected along the East Boneyard Exclosure (approximately 49 acres) would be removed and seasonal fencing along the 6 Exclosure would be incrementally reduced to allow year-round recreation in these two exclosures. The 6 Exclosure (62 acres) may be reduced in 328-foot (100-meter) increments from north to south (approximately 7.5 acres), or CDPR may implement alternative incremental reductions of similar acreage to meet management needs. The gradual progression of the 6 Exclosure reduction would be conditioned upon biological criteria being met for SNPL and CLTE, operational considerations, and other factors.

[2] This capture is a new covered activity proposed under the HCP. This activity is different from ongoing capture associated with natural resources management activities, as it addresses capture when eggs and chicks are threatened by non-covered species management activities, such as motorized recreation.

- CA-52: CDPR may use unmanned aircraft systems (UAS; e.g., drones) in the HCP area to reduce the time and cost associated with data collection, especially in more remote areas.

The HCP also covers new activity that CDPR may consider in the future that would be subject to separate environmental review for California Environmental Quality Act (CEQA) compliance (EIR section 2.4.2.3) by CDPR prior to approval and implementation. Potential activities identified in the HCP that are not proposed at this time but that may be contemplated in the future include banding adult SNPL (CA-12b), habitat manipulation in the Southern Exclosure (CA-12b), propagation and outplanting of listed plants (CA-15), California Vegetation Treatment Program (CalVTP; CA-16), replacement of the cable fence (CA-28), Grover Beach Lodge (CA-38), Pismo Creek estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center (CA-43), new Dust Control Program activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49). All these activities are reasonably foreseeable projects considered in the cumulative impact analysis (also see EIR section 3.3).

S.2 PROJECT IMPACTS AND MITIGATION

Consistent with CEQA and the CEQA Guidelines, this EIR focuses on the potentially significant direct and indirect impacts that could result from implementation of the proposed HCP. Impacts that were determined to be less than significant due to absence of the evaluated resource or the nature of the proposed activity include aesthetics, agriculture and forestry resources, geology and soils, greenhouse gas emissions and energy, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, population and housing, public services, transportation and traffic, utilities and service systems, and wildfire (see EIR section 3.2). These impacts are discussed in EIR section 10.3.

The EIR impact analysis evaluates in detail potential impacts to land use, air quality, biological resources, cultural resources, and recreation. A summary of project impacts and mitigation is presented in Table S-1. All impacts associated with the HCP can be reduced to less-than-significant levels. There are no significant unavoidable impacts.

Table S-1. Summary of Project Impacts and Mitigation Measures

Impact	Mitigation Measure
Land Use	
Impact of All New Covered Activities from Land Use Policy Conflicts: SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR's use of UAS (CA-52) would not change the land use designations within Pismo State Beach or Oceano Dunes SVRA. These activities would be consistent with California Coastal Act, Local Coastal Program (LCP), State Park General Plan, and other relevant land use policies. **Less-than-Significant Impact**	**No mitigation is required.**
Air Quality	
Impact of CA-50 on Sensitive Receptors and Air Quality Standards: **Impact AIR-1** The proposed reduction of the East Boneyard Exclosure and 6 Exclosure (CA-50) could potentially change dune surface emissivity, increase dust generation, and expose persons to substantial pollutant concentrations that lead to exceedances of $PM_{2.5}$ and/or PM_{10} ambient air quality standards. **Potentially Significant Impact**	**Mitigation Measure AIR-1:** To ensure that implementation of HCP CA-50 (Reducing the Boneyard Exclosure and 6 Exclosure) does not cause or contribute to violations of air quality standards downwind of Oceano Dunes SVRA, CDPR shall plan for and incorporate potential surface emissivity changes into the Annual Report and Work Plan (ARWP) required by Stipulated Order of Abatement (SOA) #17-01. CDPR shall, as determined to be necessary by each ARWP process, 1) Develop a Portable In-Situ Wind Erosion Lab (PI-SWERL) monitoring plan that provides the information necessary to adequately address potential changes in surface emissivity associated with implementation of CA-50.

Table S-1. Summary of Project Impacts and Mitigation Measures	
Impact AIR-1 (continued)	2) Evaluate and establish scientifically defensible PM_{10} emissivity relations in the plover exclosure, including areas that may be subject to modified recreation status such as the East Boneyard Exclosure and 6 Exclosure. The establishment of emissivity relations in the plover exclosure may be based on historical emissivity data, new emissivity data, or a combination of historical and new emissivity data and, if deemed necessary by CDPR, new excess emissions model sub-regions that delineate CA-50 activities shall be developed and incorporated into the excess emissions model's "current landscape" scenario. 3) Ensure emissions from the Oceano Dunes SVRA, inclusive of CA-50 activities, continue to comply with SOA #17-01. a. If CDPR finds CA-50 is contributing to, or is predicted to contribute to, emissions that are above the predicted naturally occurring emissions that contribute to exceedances of state and federal PM_{10} air quality standards (or that contribute to non-compliant conditions pursuant to a different SOA metric adopted by the SLOACPD), CDPR, shall implement measures that reduce PM_{10} emissions to levels that comply with the SOA. Such measures shall be determined via the relevant ARWP process and may include, but are not limited to: i. Discontinue the transition of 6 Exclosure and/or East Boneyard Exclosure from seasonal recreation to year-round recreation. ii. Return areas within the plover exclosure that have been transitioned to year-round recreation back to seasonal recreation only. iii. Control dust from another portion of the HCP area to achieve compliance with the SOA. **Less than Significant with Mitigation Incorporated**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Biological Resources	
Impact of CA-12b/AMM 22 on Special-Status Species: As part of SNPL/CLTE monitoring and management (CA-12b), CDPR proposes to allow capture of 12 SNPL chicks and 12 SNPL eggs for captive rearing if threatened with death or injury (AMM 22). Handling of chicks and eggs causes disturbance and risk of injury or mortality, but the eggs and chicks targeted for capture would already be at risk of take. Capture for captive rearing could prevent an injury or mortality. This activity would not increase the risk of injury or mortality for the individuals and therefore it is not considered a significant impact. Removal of SNPL chicks or eggs could remove these individuals from the Oceano Dunes SNPL population but would protect the SNPL from harm, thus resulting in a benefit to the individuals. Removal of 12 chicks or eggs would not impair the continuation of successful nesting seasons or the SNPL population stability. Any loss would be offset by the established conservation program. The impact on population would be less than significant. Implementation of AMM 22 would have minimal to no impact on other special-status species. **Less-than-Significant Impact**	All AMMs apply as appropriate. **No mitigation is required.**
Impact of CA-13, CA-14, CA-16, and CA-17 on Special-Status Species: Stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), and invasive aquatic species predator control (CA-17) are measures proposed for the purpose of managing these species and meeting FESA HCP impact offset requirements for ~~ting impacts to~~ SWPT, CRLF, WSF, and tidewater goby. These actions would have beneficial impacts on these species by improving habitat or eliminating threats. These actions would have little to no adverse impacts on other special-status species. **Less-than-Significant Impact**	All AMMs apply as appropriate. **No mitigation is required.**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Impact of CA-21 on Special-Status Species: Mechanical trash removal (CA-21) would occur on the open sand areas above the wrack line (high water mark) on two segments (0.25 miles each) of shoreline at vehicle entrances and approximately 1.25 miles of shoreline between Post 2 and Post 4.5 twice annually during spring and fall months. Operations would not occur in vegetated areas or near known nesting areas and would avoid creeks and lagoons. Equipment would not exceed 10 miles per hour. CDPR staff would inspect the area prior to equipment use. With implementation of these restrictions incorporated as AMMs, no direct impacts on special-status species would occur. Mechanical trash removal could remove organic debris deposited on the beach supporting food source populations for foraging shorebirds. Given the restriction of this operation in frequency, timing, and scope and the 7 miles of park shoreline remaining untreated, the impact of mechanical trash removal upon foraging and sheltering shorebirds or the quality of their available habitat is unlikely to be significant. Per AMM 111, CDPR would conduct a study to establish baseline conditions of invertebrate populations and to determine the impact of mechanical trash removal on these populations. If CDPR finds a significant decline in invertebrate numbers in mechanical trash removal areas, additional measures would be implemented (e.g., conducting habitat enhancement, reducing the frequency of mechanical trash removal, and/or reducing the locations). With implementation of AMM 111, the impact of mechanical raking on overwintering SNPL and other foraging shorebirds would be less than significant. **Less-than-Significant Impact**	All AMMs apply as appropriate. AMMs specific to CA-21 include SNPL AMMs 102–111 and CLTE AMMs 89–96 **No mitigation is required.**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Impact of CA-50 (Reduction of Boneyard Exclosure) on Special-Status Species: Reduction of the Boneyard Exclosure (CA-50) would eliminate approximately 47 acres of seasonally protected nesting habitat in East Boneyard. CLTE has not nested in East Boneyard since 2005. This action would have no impact on nesting CLTE. SNPL use of East Boneyard is low and infrequent with no nests occurring since 2019. Any nests discovered in East Boneyard would be protected with single-nest exclosures. Removal of the East Boneyard Exclosure would allow recreation activity to occur adjacent to SNPL and CLTE nests along the east side of the West Boneyard Exclosure. Additional fencing would be installed as described in the SNPL and CLTE AMMs to ensure that disturbance in this area is minimized. With implementation of AMMs, removing the East Boneyard Exclosure fencing would not result in new take of SNPL and CLTE above baseline levels. The East Boneyard Exclosure would have no or negligible impact on other special-status species. **Less-than-Significant Impact**	All AMMs apply as appropriate. **No mitigation is required.**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Impact of CA-50 (Reduction of 6 Exclosure) on Special-Status Species: Reduction of the 6 Exclosure (CA-50) could eliminate up to 62 acres of seasonally protected high-value primary habitat for SNPL and CLTE in annual 328-foot increments (approximately 7.5 acres) if biological and operational criteria are met. Reduction of the 6 Exclosure could result in increased nesting in the open riding area outside of the protective exclosure fencing, increasing risk of mortality or injury to chicks and eggs from covered activities. The reduced exclosure area size could increase nesting density and brood density on the shoreline, resulting in increased brood aggression or decreased breeding productivity. The 6 Exclosure would be restored if monitoring shows adverse impacts to SNPL and CLTE breeding success and species population. AMMs have been incorporated into the HCP to minimize potential impacts to individual SNPL and CLTE, including routine monitoring and use of single nest exclosures and bumpouts. As a result, the impact of the 6 Exclosure reduction on CLTE and SNPL breeding success would be less than significant. Any take of SNPL occurring in the 6 Exclosure reduction area is expected to be consistent with baseline effects of park operations. No additional take of SNPL adults/juveniles above overall baseline levels within the HCP area is expected. Given the breeding success of the established conservation program, the potential ~~increased~~take of SNPL would not impair the continuation of successful nesting seasons or the SNPL population stability. As a result, the 6 Exclosure reduction would have a less-than-significant impact on the SNPL population within the HCP area. No increase in CLTE take is expected from the 6 Exclosure reduction due to low occurrence of CLTE nesting attempts outside of exclosure fencing and because CLTE do not travel to the shoreline from the nest location once hatched. Reduction of the 6 Exclosure would have no or negligible impact on other special-status species. **Less-than-Significant Impact**	All AMMs apply as appropriate. **No mitigation is required.**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Impact of CA-52 on Special-Status Species: CDPR's use of UAS (CA-52) could potentially affect SNPL and CLTE and other birds nearby. Monitoring would occur before every flight, and flight altitudes would be maintained at least 100 feet above ground and 328 feet away from known nest locations. During testing, UAS did not cause flushing or crouching. With AMMs incorporated, UAS use is not expected to adversely impact SNPL, CLTE, or other special-status birds. **Less-than-Significant Impact**	SNPL AMMs 127–147 and CLTE AMMs 113–130 apply. **No mitigation is required.**
Impact of All New Covered Activities on Sensitive Natural Communities, Jurisdictional Waters and Wetlands, and Wildlife Movement: SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), reducing the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR's use of UAS (CA-52) would have no or negligible adverse impact on sensitive natural communities, jurisdictional waters and wetlands, and wildlife movement corridors. Dune slack restoration (CA-16) would improve habitat values and could have beneficial impact. **Less-than-Significant Impact**	**No mitigation is required.**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Cultural and Tribal Resources	
Impact of CA-16 and CA-21 on Cultural and Tribal Cultural Resources: During project implementation, dune slack restoration (CA-16) of at least 0.75 acres at Jack Lake and/or Surprise Lake would disturb approximately 4 acres located in an area of medium cultural or tribal cultural sensitivity. A cultural resources or tribal cultural resources monitor would be present during all ground disturbance activities in areas of known cultural or tribal cultural resources. Mechanical trash removal (CA-21) would only occur in areas already disturbed by recreation with no known covered or uncovered cultural sites. A cultural monitor would review all proposed trash removal areas to confirm that all known cultural sites, including sites that are currently buried, are avoided. Should an unknown cultural or tribal cultural resource site be discovered, it would be recorded, assessed, and protected from further disturbance. If human remains are discovered on the project site, work would immediately cease in the area, the appropriate authorities would be notified, and consultation with tribal representatives would occur as required. **Less-than-Significant Impact**	**No mitigation is required.**
Impact of CA-50 on Cultural Resources: Reduction of the 6 Exclosure (CA-50) would not occur within an area of medium or high cultural sensitivity. Two cultural resource sites partially within the East Boneyard boundary are covered by the mobile dune environment and were not relocated during a 2011 survey. The sites are not fenced off. Recreational access already occurs in the East Boneyard Exclosure and 6 Exclosure areas 5 months out of the year during the non-breeding season for CLTE and SNPL. No significant impacts to cultural resources would occur from the proposed fencing changes allowing year-round access to the East Boneyard Exclosure and 6 Exclosure areas. **Less-than-Significant Impact**	**No mitigation is required.**

Table S-1. Summary of Project Impacts and Mitigation Measures	
Recreation	
Impact of CA-21 on Recreational Opportunities and Public Access: Mechanical trash removal (CA-21) is a temporary and transient maintenance activity to remove trash from the beach surface and would not block or otherwise impede access to the ocean. **Less-than-Significant Impact**	**No mitigation is required.**
Impact of CA-50 on Recreational Opportunities and Public Access: Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) would allow year-round recreation on up to 109 coastal acres that are otherwise seasonally closed for 7 months (March 1 through September 30). No change would occur to the camping or visitor limits established by CDP 4-82-300. This lifted restriction expands recreation opportunity and access and has a beneficial effect on public coastal access to Pismo State Beach and Oceano Dunes SVRA. **Beneficial Impact**	**No mitigation is required.**

S.3 CUMULATIVE IMPACTS

CEQA requires that an EIR evaluate cumulative impacts, which are the project's impacts combined with the impacts of other related past, present, and reasonably foreseeable future projects. The approach taken in this EIR to address cumulative impacts is presented in EIR section 3.3. The EIR determined that the proposed new covered activities would not result in incremental effects that are cumulatively significant when combined with other past, present, or future projects that are reasonably foreseeable.

S.4 PROJECT ALTERNATIVES

CEQA Guidelines section 15126.6 states that an EIR shall describe a range of reasonable alternatives to a project, or to the location of the project, that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. As described in Chapter 3 through Chapter 8Chapter 8 of this EIR, the project has the potential to result in significant effects during implementation of the HCP. All impacts would be reduced to a less-than-significant level through identified mitigation measures.

S.4.1 Alternatives Considered but Rejected

CDPR considered various strategies to avoid and minimize impacts to protected special-status species prior to selection of the proposed project. The proposed HCP is based on a multi-year process of data collection and consultation with resource agencies. Alternatives that were considered but rejected in favor of the proposed HCP include: 1) No Take Park Operations; 2) Off-site Mitigation in-lieu of Nesting Exclosures; 3) Changes in Oceano Dunes SVRA Access; 4) Restricted Riding Times; and 5) Increased Vehicle Use Limits. These alternatives were rejected from further consideration due to their inability to reduce the potential for significant adverse impacts, their inability to meet project objectives, and other reasons as discussed in EIR section 9.1.

S.4.2 Alternatives Further Considered

Four alternatives are considered in this EIR: 1) No Project Alternative; 2) Reduced Disturbance in Dust Emission Areas; 3) Permanent Year-Round Exclosures; and 4) Reduced Vehicle Use Limits. These alternatives are discussed in detail in Alternatives (EIR section 9.2). Maintain 6 Exclosure Boundary is considered the environmentally superior alternative as described in EIR section 9.3.

Alternative 1: No Project Alternative. Under this alternative, the USFWS would not issue an ITP for the Oceano Dunes District parklands. Incidental take of SNPL, SWPT, CLTE, CRLF, WSF, and tidewater goby that may occur from visitor uses and park operations, whether occurring presently or in the future, would be unauthorized, leaving the violation of FESA unresolved. CDPR would maintain its current park operations and continue implementation of its current conservation program, including its annual strategy to avoid take. No changes would be made to current park operations.

The No Project Alternative conflicts with CDPR's responsibility of managing state parkland in a manner consistent with governing laws. Given the failure of the alternative to meet basic project objectives of FESA compliance and recreation management (EIR section 2.3.2), the No Project Alternative is not a viable option and is rejected by CDPR in favor of the proposed project.

Alternative 2: Reduced Disturbance in Dust Emission Areas (Elimination of Exclosure Reduction). Under this alternative, the proposed reduction of the Southern Exclosure identified

in CA-50 would be eliminated from the HCP; the 6 Exclosure (62 acres) and the East Boneyard Exclosure (47 acres) would remain part of the Southern Exclosure and continue to be closed during the nesting season (March 1 – September 30) and open during the winter season (October 1 – February 28). The Southern Exclosure would retain its current size (300 acres) and configuration. The purpose of this alternative would be to avoid proposed actions with the potential to increase particulate emissions from the HCP area that would contribute toward excess dust emissions in potential violation of state or federal air quality standards. Mechanical trash removal (CA-21) was determined to not contribute toward excess dust emission and therefore is not included in this alternative.

This alternative conflicts with the Consent Decree (see CA-50 discussion in EIR section 2.4.2.2) by maintaining the northern boundary of the seasonal exclosure at Post 6. CDPR rejected this exclosure boundary location when preparing the HCP (HCP section 8.3). CDPR determined the conservation program proposed under the HCP provides adequate AMMs, and the biological criteria and other factors that are required to reduce the 6 Exclosure (HCP section 5.2.3) ensure that any take of SNPL and CLTE occurring as a result of reducing the exclosure would be minimized. Further, this alternative eliminates the incremental restoration of recreation opportunity on 62 acres of shoreline at this location from 5 months per year to year-round. This alternative conflicts with project objectives to preserve, manage, and expand recreation opportunities and to manage, maintain, and maximize access to unique coastal camping and recreation amenities. The alternative preserves existing but not historic recreation opportunity. Given these considerations, the Reduced Disturbance in Dust Emission Areas Alternative is rejected in favor of the proposed project.

Alternative 3: Permanent Year-Round Exclosures. Under this alternative, the riding area boundary would be permanently modified to provide year-round closure of all or part of the Southern Exclosure for wintering bird protection (including SNPL) and to reduce dust emissions associated with the recreational use of the riding area. The permanent exclosure would not be actively managed by CDPR and would thus likely become less productive habitat over time. Given the success of the current conservation program using the existing seasonal exclosure size, establishing permanent year-round exclosures is unnecessary to achieve project biological objectives. This alternative would shift the riding area away from the shoreline and reduce beach access for motorized and non-motorized recreation, including camping. This alternative conflicts with project objectives to balance conservation and recreation demands, particularly to preserve, manage, and expand recreational opportunities and to manage, maintain, and maximize unique coastal camping and recreational amenities. The Permanent Year-Round Exclosures Alternative is rejected in favor of the proposed project.

Alternative 4: Reduced Vehicle Use Limits. Under this alternative, day use vehicle and off-highway vehicle (OHV) use limits would be decreased to reduce environmental impacts associated with motorized recreation. The alternative would reduce vehicle access to Oceano Dunes SVRA; the acreage of the riding area open to vehicle use would not be changed. It remains unknown whether a decrease in use limits and corresponding reduction in vehicle activity would reduce PM_{10} emissivity levels to offset potential increase in PM_{10} emissions caused by a reduction in Boneyard Exclosure and 6 Exclosure. Reducing vehicle activity could lower but not eliminate the risk of take of SNPL and CLTE caused by new covered activities. The reduced number of vehicles combined with the potential opening of up to 62 access of shoreline access (6 Exclosure) suitable for camping would reduce congestion during peak visitation months beyond the density reduction achieved by the proposed exclosure reduction alone. This alternative conflicts with project objectives to balance conservation and recreation

demands, particularly to preserve, manage, and expand recreational opportunities and to manage, maintain, and maximize unique coastal camping and recreational amenities. The Reduced Vehicle Use Limits Alternative is rejected in favor of the proposed project.

S.5. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines § 15123(b) requires the EIR Summary to identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public and issues to be resolved, including choice among alternatives and whether and how to mitigate the significant effects. These issues are discussed below.

S.5.1 Unresolved Coastal Development Permit (CDP) Issues

CDPR Oceano Dunes District operates the Pismo State Beach and Oceano Dunes SVRA park units consistent with a CDP (4-82-300 as amended) issued by the California Coastal Commission (Coastal Commission). The CDP issued in 1982 placed limits on park operations primarily through establishing interim daily vehicle use and camping limits and fencing along the riding area perimeter.

Coastal Commission staff recommended 15 new CDP conditions deemed necessary for compliance with the California Coastal Act (June 2019). These issues are outlined in the Coastal Commission's CDP annual review recommendations (July 2019). There is disagreement between CDPR and Coastal Commission regarding: 1) compliance with Coastal Act policies and CDP conditions, and 2) regulatory authority over park resources and management operations. The Coastal Act inconsistency issues as identified by the Coastal Commission remain unresolved.

CDPR prepared a Public Works Plan (PWP) (AECOM 2020a) to resolve outstanding issues from CDP 4-82-300Coastal Commission. The Coastal Commission reviewed the PWP in March 2021 and subsequently approved a CDP amendment that differed from the PWP, substantially modifying park operations including but not limited to eliminating OHV use over a 3-year transition period. The Coastal Commission's action was legally challenged by stakeholders, and in July 2023 the San Luis Obispo County Superior Court ruled that the Coastal Commission did not have authority to amend the CDP to prohibit uses that were consistent with the governing LCP. The Coastal Commission appealed to the California Court of Appeals, which affirmed the Superior Court ruling in March 2025 on narrow procedural grounds.

S.5.2 Other Outstanding Litigation

CDPR is named in other litigation brought by stakeholders over park management at Oceano Dunes. The ongoing litigation includes: 1) an action brought under FESA for causing unauthorized SNPL take; and 2) a quiet title lawsuit claiming that OHV recreation, beach driving, and camping are permanent uses at Oceano Dunes SVRA that cannot be banned by any agency based on "implied dedication." Unauthorized take of SNPL would be resolved by USFWS issuance of the ITP that is the subject of the HCP and this EIR.

S.5.3 Existing Park Operations

The effects of the existing park operation, including use of motor vehicles on the beach and in sensitive dune habitat, dust and sand blown off site and downwind, and impacts to protected species, are controversial. These concerns are associated with the ongoing park operation and the park's recreational use; they are not concerns generated by proposed new or potential future activities covered by the HCP and possible ITP. The park activities causing impact and controversy have been previously authorized and established as allowable uses under the adopted

State Park General Plan and under the certified LCP. The Draft HCP has been prepared by CDPR to support its application to the USFWS for approval of an ITP under FESA. The Draft HCP is not responsible for authorizing the underlying park activities such as OHV use and dust control measures, which are otherwise approved. It could be perceived as controversial by some that CDPR does not include in the HCP new or greater restrictions on these existing uses or that the EIR scope does not evaluate existing authorized uses, the parameters of park operations, or regulatory permit conditions.

S.5.4 Balance of Resource Protection and Recreation Opportunity

There is disagreement among interest groups and concerned individuals regarding whether the HCP is striking an acceptable balance between motorized recreation opportunity and protection of natural resources. State Parks' mission is to provide both high-quality recreation opportunity (Public Resources Code [PRC] § 5090.01 *et seq.*) including motor vehicle recreation and resource protection that conserves and improves habitat over time (Senate Bill [SB] 249). The HCP represents State Parks' efforts to balance these competing needs. Some conservation interests and those opposed to motorized recreation at Oceano Dunes would like to see State Parks reduce park access to OHVs through a complete ban or through increased restrictions on allowed riding hours, open area, or vehicle numbers. Conversely, motorized recreation interests have seen multiple sizable reductions in park acreage open to OHV recreation and camping and would like to see both the existing area preserved and previously closed areas reopened.

S.5.5 HCP Contribution toward Species Recovery

Oceano Dunes plays a key role in recovery of SNPL and CLTE. As documented in the HCP, the HCP area is highly productive for breeding SNPL and CLTE. The CDPR conservation program at Oceano Dunes has had a high degree of success in increasing SNPL and CLTE populations while providing motorized and non-motorized recreation opportunity. The numbers of breeding SNPL adults and CLTE breeding pairs have trended upward over the past 20 years, indicating that recovery within the HCP area is happening.

HCPs are intended to balance applicant objectives and conservation goals, and to minimize incidental take authorized under an ITP. The main purpose of an HCP is not species recovery or delisting, but to ensure that the taking will not appreciably reduce the likelihood of survival and recovery of the species. CDPR has the discretion to set the parameters of its HCP content and has designed the HCP to balance competing recreation and conservation mandates. The HCP is not designed with the goal of expanding the park's existing conservation program to support larger SNPL or CLTE populations and further contribute toward species recovery in broader range populations. Rather, the HCP represents a continuation of CDPR's existing conservation program that has demonstrated success in increasing SNPL and CLTE populations and provides for lifting seasonal recreation access restrictions in the 6 Exclosure if the population targets are met. The lack of expanded protected habitat areas and increased restriction on motorized recreation access in the HCP is controversial to conservation interests.

S.5.6 Proposed Reduction of the 6 Exclosure

CDPR proposes a gradual elimination of the 6 Exclosure, which is a highly productive nesting area for SNPL and CLTE. The proposal would reduce the amount of seasonally protected breeding habitat in 328-foot or similar increments (approximate 7.5-acre phases; 62 acres total) contingent on demonstrating maintained breeding success and a sustained population as well as compliance with other applicable regulatory programs. The reduction would be reversed and the eliminated exclosure reinstated if subsequent breeding and population targets are not met. The

potential response of SNPL and CLTE to the reduced exclosure is unknown. The phased reduction based on adaptive management is a prudent approach to testing the SNPL and CLTE response to the exclosure change and the degree of impact. The elimination of the 6 Exclosure would reduce the acreage of protected, highly productive nesting habitat during the breeding season. This is controversial and could be viewed as increasing the potential for take of individual SNPL and CLTE, reducing the breeding success, and impeding species recovery. Conversely, breeding in the HCP area has been very successful, and CDPR contends this should allow for some modification to current management protocols. In negotiation with the USFWS, CDPR has increased the SNPL breeding population metric that must be met prior to implementing the 6 Exclosure reduction (see EIR section 1.7).

The phased elimination of the 6 Exclosure is included in the HCP, consistent with the Consent Decree issued by the U.S. District Court (2005). In November 2001, the Sierra Club filed a petition with the U.S. District Court alleging that CDPR operated Oceano Dunes SVRA in violation of FESA by facilitating vehicle recreation activities that cause unauthorized take of SNPL, CLTE, and steelhead trout. As a term of the Consent Decree, CDPR agreed to immediately expand the boundaries of the seasonal exclosure north to Post 6 and south by 1 mile to their current locations. The Consent Decree further stipulated that the CDPR HCP application to the USFWS would support a northern boundary of the seasonal exclosure at Post 7 (7 Exclosure). The elimination of the 6 Exclosure proposed by CDPR in the HCP satisfies this Consent Decree requirement.

S.5.7 Mechanical Trash Removal

CDPR is considering the use of mechanical trash removal on open sand areas for the purpose of removing debris from open sand areas that poses a hazard to visitors. Mechanical trash removal presently occurs at Pismo State Beach and Oceano Dunes SVRA on a trial basis. Department Operations Manual Beach Grooming Policy 0311.4.2.1 allows for "coastal districts to develop beach grooming strategies that are appropriate for the primary purpose for which the unit was established, the classification of the unit, the amount of public use the beach receives, and in consideration of potential impacts to natural resource values and processes." Mechanical trash removal would cause minor alterations in microtopography and is not expected to substantially modify beach landform or contribute to excess dust emissions. Mechanical trash removal could remove scattered debris and organics that could be important habitat for the invertebrate community supporting shorebirds, including SNPL and CLTE. The HCP includes a measure to further study and implement corrective actions if determined necessary. Nonetheless, this proposed action is controversial due to the potential biological effects and was raised as an issue of concern in public comment on the 2020 HCP Draft EIR. CDPR has modified the proposed mechanical trash removal treatment activity to include only those areas subject to heavy visitor use (see EIR section 1.7 and EIR Figure 2-8).

S.5.8 Impact of Dust Control Program Measures

CDPR implements the Oceano Dunes SVRA Dust Control Program pursuant to a Stipulated Order of Abatement (SOA) issued by the SLOAPCD. The Dust Control Program is a comprehensive, ongoing, adaptive management program designed to reduce dust (PM) emissions generated from within Pismo State Beach and Oceano Dunes SVRA and improve air quality downwind of the SVRA. CDPR initiated the program in 2011 as a series of studies and pilot projects. Over time, the program has adapted to become an iterative series of dust control-related activities that are evaluated and modified as necessary to meet the evolving requirements of the SOA. In 2019, CDPR closed 48 acres of foredune area to vehicle use, and in 2020 this area was planted with vegetation as a means of reducing park dust emissions. This action removed 48

acres of shoreline area from available camping and motorized recreational space. The foredune acreage planted for dust control is located in critical SNPL habitat and primary CLTE habitat. Though the foredune area was not used by nesting SNPL or CLTE prior to its planting, the dust control measures modify the habitat value and its potential use.

The 2025 draft Annual Report and Work Plan (ARWP) is being prepared and may identify additional acreage within the SVRA riding area that will be subject to dust control measures. The proposed reduction of the 6 Exclosure and Boneyard Exclosure (CA-50) could increase the dust emissions and affect emission modeling used to implement the Dust Control Program. The Dust Control Program is a separate regulatory program, and any changes to park operations identified in ARWPs for compliance with the SOA are effects of the Dust Control Program and not attributable to the proposed project activities. Nonetheless, the effects of the Dust Control Program on recreation space and habitat values are controversial and were raised as an issue of concern in public comment on the 2020 HCP Draft EIR. The controversy associated with implementation of the Dust Control Program, such as the regulation of natural versus manmade dust emissions, disputes in use of modeling data and modeling results, and implementation of dust control measures, are controversies of the Dust Control Program and not the HCP. These are issues outside of the activities being considered by CDPR in this EIR. These issues do not need to be resolved for CDPR to approve and implement the proposed new activities analyzed in the EIR.

S.5.9 Uncertainty of Air Quality Impacts

As described in the EIR, it is unknown whether CDPR's proposed new action of reducing the Southern Exclosure to increase recreational access to the East Boneyard Exclosure and 6 Exclosure from seasonal (5 months per year) to year-round would affect dust emissivity levels. The EIR includes mitigation to monitor and address any observed impact through prescribed actions such as discontinuing the activity or providing dust control treatments at alternate park locations. Until the activities can be monitored, the amount of impact, if any, and the scale of mitigation needed to offset impacts (i.e., location and size of offset areas) are unknown and speculative.

S.5.10 Future Public Works Plan Projects

The PWP is a long-range land use management plan for compliance with the California Coastal Act that is reviewed and certified by the Coastal Commission. In 2020, State Parks published a draft PWP that outlined upgraded park infrastructure and operations. Potential projects were identified during a public scoping process (see EIR section 3.3.3 for further discussion). The draft PWP and Draft EIR were published for public review in December 2020. In March 2021, the Coastal Commission modified the park's CDP affecting the proposed PWP. The planning process is presently on hold. The HCP anticipates that some of the projects envisioned in the PWP may be implemented during the HCP term. Some of those projects may require amendments to the HCP, whereas others could be incorporated without amendment. Amendments would be considered at the time they are proposed for implementation (see HCP section 2.2.7).

CHAPTER 1. INTRODUCTION

1.1 PROJECT OVERVIEW

The California Department of Parks and Recreation (CDPR or State Parks) Oceano Dunes District manages Pismo State Beach and Oceano Dunes State Vehicular Recreation Area (SVRA). Park operations, including visitor uses, visitor services, facility maintenance, and resource management, may affect federally- and state-listed endangered or threatened species, including western snowy plover (*Charadrius nivosus nivosus*; SNPL), California least tern (*Sternula antillarum browni*; CLTE), California red-legged frog (*Rana draytonii*; CRLF), and tidewater goby (*Eucyclogobius newberryi*); species proposed for federal listing as threatened including southwestern pond turtle (*Actinemys pallida*; SWPT) and western spadefoot (*Spea hammondii*; WSF); as well as four federally- and two state-listed plant species.

CDPR has prepared a draft Habitat Conservation Plan (HCP) for the Oceano Dunes District in support of its application to the U.S. Fish and Wildlife Service (USFWS) for issuance of an incidental take permit (ITP) for federally-listed animal species authorized under Section~~s 10(a)(1)(A) and~~10(a)(1)(B) of the federal Endangered Species Act (FESA; 16 United States Code [USC] § 1531 et seq). Additionally, the HCP addresses federally- and state-listed plant species.

In a separate action, CDPR intends to prepare a Natural Community Conservation Plan (NCCP) in support of an application to California Department of Fish and Wildlife (CDFW) for issuance of a permit authorizing incidental take of state-listed animal and plant species under California Fish and Game Code sections 2800 *et seq.*, including section 2835.

1.2 LEAD AGENCY CONTACT INFORMATION

The California Environmental Quality Act (CEQA; Public Resources Code [PRC] § 21000 *et seq.*) and the CEQA Guidelines (14 California Code of Regulations [CCR] § 15000 *et seq.*) establish CDPR as the Lead Agency for the project. The Lead Agency is defined in CEQA Guidelines section 15367 as "the public agency which has the principal responsibility for carrying out or approving a project." The Lead Agency is responsible for preparing the appropriate environmental review documentation. As described below, CDPR has determined that an Environmental Impact Report (EIR) is the appropriate CEQA document for the project and has prepared this Draft EIR in accordance with CEQA and the CEQA Guidelines.

The contact person for CDPR Oceano Dunes District is:

Mr. Ronnie Glick, Senior Environmental Scientist
California Department of Parks and Recreation, Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449

1.3 INTENDED USES AND TYPE OF EIR

An EIR is an objective, informational document that informs government agency decision makers and the public of the potential for significant project effects, including possible ways to minimize those effects, and describes reasonable alternatives to the project (CEQA Guidelines § 15121(a)). An EIR must be prepared with a sufficient degree of analysis to provide decision

makers with information enabling them to make a decision that intelligently considers the project's potential direct and indirect environmental consequences. The evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible (CEQA Guidelines § 15151).

This EIR will be used by CDPR to evaluate the environmental effects associated with the HCP when considering its approval. No other state or local agencies are Responsible Agencies (see HCP section 2.6). Trustee Agencies, defined by CEQA Guidelines section 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California," may review this EIR for potential impacts related to natural resources under their governance. Trustee Agencies with jurisdiction over the resources potentially affected by the proposed HCP include CDFW.

CEQA Guidelines section 15379 excludes federal government agencies from the definition of a "public agency." Thus, USFWS is not a Responsible Agency or a Trustee Agency for the purposes of CEQA. USFWS is the permitting agency conducting separate environmental analysis under the National Environmental Policy Act (NEPA), which is not limited to threatened and endangered species.

This EIR is a Project EIR intended to cover the direct and indirect environmental effects associated with implementing the Oceano Dunes District HCP as described in the HCP and summarized in EIR Chapter 2, Project Description. It is not the role of this EIR to evaluate existing authorized uses, the parameters of park operations, or regulatory permit conditions. The EIR impact analysis is limited to the environmental assessment of activities proposed by CDPR that would result in a physical change to the environment.

The HCP identifies potential park improvement projects that may be considered by CDPR in the future during the 25-year term of the ITP. The inclusion of future projects in the HCP as covered activities allows CDPR to address both existing and reasonably anticipated future park operations in one federal permit review process. Issuance of a federal ITP covering future projects does not entitle these future projects to the subsequent approvals necessary from CDPR or other agencies or obviate future environmental review of these projects pursuant to CEQA. Other authorizations that may be required for future park actions are described in EIR section 2.5. This EIR does not provide a program-level or project-level CEQA review for these future activities.

1.4 SCOPING OF ENVIRONMENTAL ISSUES

CDPR published a Notice of Preparation (NOP) for the EIR on January 11, 2018, to invite comment on the scope and content of the environmental review of the Oceano Dunes District HCP; the comment period closed on March 12, 2018. Simultaneously, the USFWS published a Notice of Intent (NOI) to prepare an environmental review of the HCP pursuant to NEPA (42 USC § 4321 *et seq.*) and to invite public comment. Both notices announced a joint public scoping meeting on February 7, 2018, for the purpose of inviting public comments on the project. Public notice of the scoping period and public meeting was distributed to local community agencies and interested groups and individuals. Notice was also published in a newspaper of local circulation.

Twelve distinct comment letters, emails, or comment cards were received in response to the NOP and NOI. Also, one form letter was submitted by 2,053 individuals with some containing additional, unique comments. Oral comments were received from the meeting attendees at large.

The NOP and NOI, scoping meeting presentation, summary of comments, and comment letters are presented in Appendix A.

Some of the comments related to the HCP rather than the environmental document, and some comments expressed support or opposition to certain aspects of the proposed HCP. Some comments pertained only to the federal agency environmental review under NEPA (specifically requesting preparing an Environmental Impact Statement [EIS] instead of an Environmental Assessment [EA], assessing environmental justice, and co-equal evaluation of alternatives). Only those comments relating to the scope of the environmental analysis under CEQA are addressed. As summarized below in Table 1-1, the comments focused on air quality, biological resources, cultural resources, water quality/hydrology, recreation opportunity, the alternatives analysis, and cumulative impacts. The EIR section that addresses the comments is also listed in Table 1-1.

Table 1-1. Scoping Comment Received

Comment	Where Addressed in EIR
Document Type and Review Process • Specify whether the EIR will be used as a programmatic "tiering" document or provide project-level review. • An NCCP is needed for CLTE since it is a Fully Protected Species.	Chapter 1, Introduction
General Comments Applying to Entire Document • Base environmental review on the best available science and survey data following established protocols.	Chapter 3, Impact Analysis Methodology
Project Description • Identify the purpose and need and rationale for the proposed action. • HCP and CEQA/NEPA documents must clearly identify enforcement provisions.	Chapter 2, Project Description
Air Quality • Address general impacts of motorized recreation on air quality, dust, and particulates. • For air quality analysis, quantify emissions, identify emissions sources, and include construction emissions mitigation, including fugitive dust source controls, stationary equipment source controls, and administrative controls. • Demonstrate project emissions of air basin pollutants in nonattainment or maintenance status are accounted for in the State Implementation Plan (SIP).	Chapter 5, Air Quality
Greenhouse Gas (GHG) • Address general impacts of motorized recreation on GHG emissions.	Chapter 10, Other CEQA Considerations, EIR section 10.3.4

Table 1-1. Scoping Comment Received

Comment	Where Addressed in EIR
Biological Resources • Address general impacts of motorized recreation on the loss of surface soils and vegetation and trash. (Also see Chapter 5, Air Quality and Chapter 10, Other CEQA Considerations; Section 10.3.3 Geology and Soils.) • Include direct, indirect, and cumulative impacts to all wildlife and habitat, and measures to avoid impacts. • Discuss the HCP's consistency with other HCPs or recovery plans in the area. • Address invasive species impacts and impacts to steelhead and leatherback sea turtle. • Address other protected species not covered in the HCP. • Take into account the impacts of climate change and dogs off leash on covered species. • Incorporate findings of the USFWS 2017 report to improve protections for SNPL and CLTE. • Address impacts from dust control mitigation on increased vegetation that attracts predators, threatening endangered species. • Address sand density in the preferred nesting habitat assessment. Take into account injured birds in take totals. • Apply a correction factor for detection of juvenile and adult SNPL mortality caused by vehicle strikes. • Express losses to take of SNPL eggs, chicks, and juveniles as adult equivalents to better identify cumulative impacts. • Address nighttime vehicle threat to juvenile and adult SNPL. • Consider rates of sea level rise in impact analysis for SNPL habitat. • Address impacts of fertilizer used for revegetation projects.	Chapter 6, Biological Resources; Appendix C; Appendix D
Cultural Resources • Describe tribal consultation process. • Address Indian sacred sites that exist in the project area. • Consult with California Native American tribes affiliated with the geographic area per Senate Bill (SB) 18 and Assembly Bill (AB) 52, particularly in regard to dust mitigation projects and planning.	Chapter 7, Cultural Resources
Hazardous Materials • Address general impacts of motorized recreation from oil and gas spills.	Chapter 10, EIR Other CEQA Considerations, EIR section 10.3.5
Hydrology and Water Quality • Describe the drainage patterns in the area, including the 50- and 100-year flood plains. • Address water quality and flow rates of Oso Flaco Lake and Arroyo Grande Creek.	Chapter 10, Other CEQA Considerations, EIR section 10.3.6

Table 1-1. Scoping Comment Received

Comment	Where Addressed in EIR
Land Use Planning • Discuss project consistency with objectives of federal, state, tribal, or local land use plans, policies, and controls in the plan area.	Chapter 4, Land Use Planning
Recreation • Consider a range of recreation opportunity, including no loss in recreation opportunity and more restrictions on vehicle use. Evaluate night riding impacts.	Chapter 2, Project Description; Chapter 8, Recreation; and Chapter 9, Alternatives
Alternatives • Evaluate all reasonable alternatives that fulfill the project's purpose and need in detail and protect imperiled wildlife and health of nearby communities. • Include a clear discussion of reasons for elimination of any alternatives not discussed in detail. • Include alternatives with expanded SNPL and CLTE exclosures and permanent exclosures. • Consider an alternative area for permanent fences, alternative access during the wet season, alternative areas for off-highway vehicle (OHV) use in non-sensitive areas, riding closure during breeding season, staggering use of OHV days and hours, and off-site mitigation for CLTE/SNPL as alternatives. • Establish visitor capacity limits and consider as an alternative. • Address return of the seasonal exclosure boundary to Post 7 in compliance with the 2003 Settlement Agreement.	Chapter 9, Alternatives
Cumulative Impacts • Evaluate the effects of other past, present, and reasonably foreseeable actions, and consider those impacts on a cumulative level. • Discuss future changes that may affect covered species and their habitats. • Evaluate all potential Oceano Dunes SVRA operations and configurations and consider future uncertainties due to Coastal Development Permit (CDP) and Public Works Plan (PWP) being developed.	Chapter 3, Impact Analysis Methodology, EIR section 3.3; and Cumulative Impacts discussion in Chapters 4–8

1.5 SEPARATION OF CEQA AND NEPA DOCUMENTS

This document is a Draft EIR, prepared pursuant to CEQA, for the Oceano Dunes District HCP. The USFWS is preparing an environmental review of the Draft HCP pursuant to NEPA in a separate EA document. Both the Draft EIR and the USFWS Draft EA will have coordinated public review periods and opportunities to provide comment on the respective environmental review document.

CEQA and NEPA documents differ from each other in structure and content. One primary difference is seen in the analysis of alternatives. CEQA requires only that the proposed project be analyzed in detail; a reasonable range of project alternatives is to be discussed in lesser detail. Only feasible alternatives that can at least partially obtain the project objectives need to be considered. NEPA requires co-equal treatment and environmental analysis of alternatives; the

proposed action is one of several alternatives equally evaluated for consideration. NEPA considers socioeconomic issues, whereas CEQA focuses on project impacts causing a physical change in the environment. CEQA and NEPA documents also use different terminology when describing the significance of impacts. CEQA describes impacts in terms of significant or less than significant. NEPA describes an impact as likely or not likely to adversely affect a resource.

Given these differences, public review comments made on the CEQA document may or may not be relevant to the NEPA document. Both this Draft EIR and the USFWS Draft EA should be separately reviewed for relevant comment under CEQA and NEPA. Comments on the Draft EIR should be submitted to CDPR. Comments on the Draft EA should be submitted to the USFWS.

1.6 INCORPORATED BY REFERENCE

The proposed HCP is incorporated into this document by reference and is summarized in the EIR Project Description (Chapter 2).

1.7 REVISIONS TO THE 2020 HCP DRAFT EIR

Some revisions to the 2020 HCP Draft EIR have been made in response to the following: 1) changes to the 2020 Draft HCP; 2) new available species data since publication of the Draft EIR in February 2020; 3) changed environmental conditions; and 4) public comments received on the 2020 Draft HCP or 2020 Draft EIR during the public review period.

Pursuant to CEQA Guidelines section 15088.5(g), "When recirculating a revised EIR, either in whole or in part, the lead agency shall, in the revised EIR or by an attachment to the revised EIR, summarize the revisions made to the previously circulated draft EIR." A summary of the key changes along with the primary location in the EIR where the change occurs is presented below. This summary is not intended to represent a comprehensive list of all revisions. Text changes have been made throughout the document.

- Expanded discussion of unresolved concerns and controversial issues. See Summary section S.5.
- New text on EIR public review process. See Introduction section 1.8 below
- Updated listing of key events in park management and conservation planning efforts since publication of 2020 HCP Draft EIR in February 2020. See Project Description Table 2-2.
- New tidewater goby salvage activity in Pismo and Arroyo Grande creeks added as HCP mitigation to offset incidental take impacts to tidewater goby. See Project Description section 2.4.2.2.
- Addition of SWPT and WSF as covered species in the HCP and associated changes to biological data, species maps, biological goals and objectives, and avoidance and minimization measures (AMMs). New monitoring for SWPT and WSF would be added to park operations under CA-14. See Project Description section 2.4.2.2 and Biology sections 6.2.3 and 6.3.2 and Appendix B.
- New invasive aquatic predator removal measures would be added to the Predator Management Program in CA-17 and dune slack restoration (CA-16) as HCP measures required to offset impact to CRLF, SWPT, and WSF. See Project Description section 2.4.2.2.

- Updated mapping showing mechanical trash removal treatment areas limited to heaviest visitor use areas near Grand Avenue, Pier Avenue, and between Post 2 and Post 6. See Figure 2-8.
- Modification of the 6 Exclosure reduction criteria reflecting an upward adjustment in the SNPL breeding population (SNPL Objective 1.1) from 155 to 180 breeding pairs to reflect recent breeding successes. See Project Description section 2.4.3, Table 2-4, Biology section 6.3.2.1 discussion of Reduction of 6 Exclosure (CA-50), and other environmental chapter impact discussions where relevant.
- Addition of SNPL and CLTE monitoring data for years 2019-2023. See Biology sections 6.3.2.1 and 6.3.2.2.
- Incorporation of the Biodiversity Management Plan prepared by CDFW (2021) in collaboration with CDPR as interim management measures. See Biology section 6.1.6.
- Inclusion of Standard Project Requirements. See Cultural and Tribal section 7.1.11 and Appendix B.
- Modified list of foreseeable future projects included in HCP and considered in the cumulative analysis. New potential projects include habitat manipulation in the Southern Exclosure where nesting has been reduced, which is included in CA-12b. See Project Description section 2.4.2.3, Table 3-1, and cumulative impact discussions where relevant.
- Expanded discussion of proposed project consistency with Coastal Act. See Land Use section 4.1.4 and section 4.3.4.
- Updated air quality environmental setting and maps to reflect latest modeling data from the Scientific Advisory Group (SAG), and implementation of dust control projects. See Air Quality section 5.2.4 and Figure 5-4.
- Updated vegetation maps to reflect changed conditions since publication of the 2020 HCP Draft EIR in February 2020. See Figure 2-6 and Figure 6-1.
- Updated acreages to reflect increased vegetation area from dust control projects and reduced camping and open riding area. See Project Description Table 2-1. Revised acreages of individual exclosures due to adjustments in internal fencing alignments. Total acreage of Southern Exclosure remains unchanged. Acreages are updated throughout EIR text where appropriate.
- Updated alternative analysis to reflect altered nesting patterns observed in exclosures in response to increased vegetation and topography. See discussion of Permanent Year-Round Exclosures in Alternatives section 9.2.3.

1.8 PUBLIC REVIEW PROCESS

The Notice of Availability was published on February 24, 2020, initiating a 60-day public review period for the Oceano Dunes District 2020 HCP Draft EIR, which was extended to June 1, 2020, resulting in a 98-day public comment period. A public hearing was held on May 13, 2020, to receive public comments on the 2020 HCP Draft EIR.

Pursuant to CEQA Guidelines section 15088.5, a Lead Agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR for public review under CEQA Guidelines Section 15087 but before

certification. Based on comments received on the 2020 HCP Draft EIR, revisions made to the HCP, changed conditions, and new information available since the 2020 HCP Draft EIR was published, CDPR recirculated the Draft EIR. A summary of key changes to the 2020 HCP Draft EIR is presented in section 1.7 above.

The entire document was recirculated, and CDPR, as the Lead Agency, requested that reviewers submit new comments consistent with CEQA Guidelines section 15088.5(f)(1). Although comments on the 2020 HCP Draft EIR remain part of the administrative record, responses to those prior comments are not provided in the Final EIR. Only comments submitted on the recirculated Draft EIR were responded to in the Final EIR.

CHAPTER 2. PROJECT DESCRIPTION

2.1 LOCATION AND SITE DESCRIPTION

The proposed HCP covers two coastal Oceano Dunes District park units managed by CDPR, located in San Luis Obispo County, California (Figure 2-1 Regional Location). The 5,005-acre HCP area comprises Pismo State Beach and Oceano Dunes SVRA. The covered park units, and portions thereof, fall under three different classifications: State Beach (PRC § 5019.56(c)), Natural Preserve (PRC § 5019.17), and SVRA (PRC § 5090.43). The HCP area is bounded by the City of Pismo Beach to the north, the City of Grover Beach and Oceano community to the east, agricultural land also to the east, the Guadalupe-Nipomo Dunes NWR to the south, and the Pacific Ocean to the west. Primary access to the area is via U.S. Highway 101 and State Route 1 (Figure 2-2 HCP Area Overview).

Pismo State Beach and Oceano Dunes SVRA comprise approximately 25 percent of the 18-mile linear shoreline of the overall Guadalupe-Nipomo Dunes complex. The Guadalupe-Nipomo Dunes complex extends from Pismo Beach south to Point Sal, and roughly from State Route 1 to the Pacific Ocean in San Luis Obispo and Santa Barbara counties. The Guadalupe-Nipomo Dunes complex is a relatively intact coastal dune and dune scrub ecosystem varying in width from 2 to 5 miles.

The HCP area lands are owned by CDPR, except for 584 acres known as the La Grande property, which is owned by San Luis Obispo County and interspersed with small, privately-owned parcels; 34 acres owned by Chevron (formerly Union Oil); and approximately 642 acres owned by Phillips 66 and closed to all public access (Figure 2-2). All of these lands are managed by the Oceano Dunes District. Uses of lands owned or managed by CDPR are shown in Table 2-1.

Pismo State Beach. Pismo State Beach includes five somewhat distinct areas: the beach area; Pismo Dunes Natural Preserve (Dunes Preserve); Pismo Lake; the monarch butterfly grove; and a developed portion, including two campgrounds, a golf course with restaurant, ranger station/maintenance yard, and park residence area (Figure 2-3and Figure 2-4 HCP Area Land Use and Facilities Detail). The entire Pismo State Beach unit is 1,515 acres and is adjacent to the cities of Pismo Beach and Grover Beach and the community of Oceano.

The City of Pismo Beach has operated the northern portion of the state beach (from approximately Addie Street to the northern CDPR boundary) in accordance with an operating agreement in place since 1951. Although the City of Pismo Beach operates this portion of the state beach, when needed, CDPR staff assist with lifeguard operations on the City-operated beach and CDPR environmental scientists conduct resource work in this area.

Some areas of Pismo State Beach are closed to vehicles, some areas are open to street-legal vehicles only, while other areas are open to OHVs and street-legal vehicles. The portion of Pismo State Beach north of Grand Avenue is closed to vehicle traffic. The public is allowed to drive motorized vehicles through Pismo State Beach south of Grand Avenue to access Oceano Dunes SVRA. Visitors and CDPR staff can also drive onto the beach via sand ramps at the western terminus of Grand Avenue and Pier Avenue (Figure 2-4; Figure 2-5, Site Photographs 1 and 2). CDPR staff also have access to the beach via an entrance from Oceano Campground, which is north of Pier Avenue (i.e., Midramps). Motorized vehicles, including OHVs, and open camping (no designated spaces) are allowed on the portion of Pismo State Beach south of

orientation marker Post 2 (Figure 2-4). Pismo State Beach offers a variety of motorized and non-motorized recreational opportunities (Figure 2-5, Photograph 5).

The Pismo Dunes Natural Preserve is a 695-acre subunit of Pismo State Beach with undisturbed sand dunes, dune slack, and freshwater wetlands. The preserve extends from the south bank of Arroyo Grande Creek south to the northern boundary of Oceano Dunes SVRA. It is bounded on the west by the seaward toe of the foredune at Pismo State Beach (Figure 2-2). The preserve is open to pedestrian and equestrian access and closed to vehicle use.

The 70-acre Pismo Lake area (Figure 2-2) is inland of and disconnected from the rest of Pismo State Beach. While it is currently open to the public, the public is not encouraged to visit the area because designated access points have not been established, and the area is treated as closed to the public in this EIR for mapping purposes. No management plan or future development design is currently in effect for the area.

Oceano Dunes SVRA. Oceano Dunes SVRA is 3,490 acres and is contiguous with Pismo State Beach. As a result, the vehicle operations at Pismo State Beach and Oceano Dunes SVRA are managed as an SVRA. As noted above, motorized vehicles access Oceano Dunes SVRA via sand ramps in Pismo State Beach at Grand and Pier avenues (Figure 2-2). Between the two park units (i.e., Pismo State Beach and Oceano Dunes SVRA), approximately 1,138 acres are set aside for OHV use in what is called the "open riding area." Over 2,000 acres of the SVRA are outside of the open riding area and maintained in a largely natural state of bare and vegetated sand dunes (e.g., Oso Flaco Lake, Phillips 66 Leasehold, vegetated islands, etc.) (Figure 2-5, Photographs 3 and 4). A 48-acre foredune area near Post 5 (Figure 2-5, Photograph 5) and backdune areas along the eastern riding area boundary have been planted with vegetation for dust control purposes and these areas are no longer open to motorized vehicle recreation.

The open riding area allows open area (non-trail) riding and camping in non-designated spaces. Riding and camping are prohibited in vegetated areas (Figure 2-6 Recreational Restrictions). The open riding area is heavily used for vehicle-related recreation and camping (Figure 2-5, Photograph 5). The safety and education center kiosk is a landmark within the SVRA (Figure 2-5, Photograph 6). Roughly 300 acres of the riding area (i.e., Southern Exclosure[3]) are seasonally restricted (March through September) from vehicle recreation by exclosure fencing and signage (Figure 2-7 Western Snowy Plover and California Least Tern Management) to provide protected nesting habitat (Figure 2-5, Photographs 7, 8, 9, and 10). area 48-acre foredune area has been planted with native vegetation as part of ongoing Dust Control Program activities (Figure 2-5, Photographs 11 and 12). A complete description of riding area acreage is presented in Recreation and Public Access (Chapter 8Chapter 8).

The Oso Flaco pedestrian area is located at the southern portion of Oceano Dunes SVRA open riding area and offers hiking trails and boardwalk (Figure 2-5, Photographs 13 and 14). Access to this area is from Oso Flaco Lake Road off State Route 1, as well as from an entrance in the open riding area at Boneyard gate during the non-breeding season (Figure 2-8 CDPR Proposed New Activities). This area can also be accessed from the shoreline during the non-breeding season for

[3] The Southern Exclosure acreage fluctuates annually with changes in sand topography and fencing installation. In 2023, the area of the Southern Exclosure (including the area above the high tide line on the closed shoreline) was approximately 298 acres and compares to an average of 294 acres (range = 271-307 acres) for the 19-year period 2004 to 2022 (CDPR 2023).

SNPL and CLTE when shoreline access is not restricted by fencing (i.e., seasonal exclosure) erected by CDPR to protect breeding SNPL and CLTE.

The Phillips 66 Leasehold east of the Oceano Dunes SVRA open riding area is closed to all visitors. Oceano Dunes District staff manages the leasehold area (e.g., maintains fences and manages resources) as needed. This area can be used for emergency access. Phillips 66 maintains the road through the leasehold property to ensure access for pipeline maintenance. CDPR leases some Oceano Dunes SVRA land to local agricultural operators (Figure 2-3) near Oso Flaco Lake. This 211-acre leased portion of Oceano Dunes SVRA is also included in the HCP area. No public access is allowed on those lands leased for agricultural operation.

Table 2-1. HCP Area Land Use Acreages

Land Use	Acres
Total HCP area[1]	5,005
Open riding area[2,3]	1,138
Beach open to street-legal vehicles only	65
Open to pedestrians[4]	4,130
Open to equestrians[5]	2,317
Closed to all public visitors[6]	869
Campgrounds (Oceano and North Beach)	58
Corporation yard	6
Pismo State Beach Golf Course	25
Grand Avenue parking lots and facilities	11
Pismo Lake	70
Phillips 66 Leasehold	658
Agricultural lease area	211

Notes:

[1]Comprises Pismo State Beach (1,515 acres), including the Pismo Dunes Natural Preserve and Pismo Lake, and Oceano Dunes SVRA (3,490 acres).

[2]Includes approximately 306 acres of riding area seasonally closed March 1 through September 30 for SNPL and CLTE nesting (Southern Exclosure). Note that in 2021 CDPR administratively closed this area year-round temporarily in response to now-concluded CDP permitting and litigation. The HCP anticipates the area will return to seasonal operation, consistent with actual past use, if such operation is consistent with the requirements of other programs (see HCP sections 2.2.1.1 and 2.2.5.5). CDPR will implement shoreline closures as needed in the 48-acre foredune area to protect nesting SNPL and CLTE and chicks.

[3]Open riding area available for camping is 1,134 acres due to year-round closure of foredune alleyways (transportation corridors) to camping.

[4]Entire HCP area except corporation yard, Pismo Lake, Phillips 66 Leasehold, and agricultural lease area; additional areas may be posted as closed for resource management.

[5]Includes Pismo State Beach (except Pismo Lake, golf course, and corporation yard), and open riding area within Oceano Dunes SVRA.

[6]Phillips 66 Leasehold and agricultural lease area

Land uses and acreages overlap. Numbers are rounded.

2.2 BACKGROUND OF PARK OPERATIONS

2.2.1 Mission of California State Parks

CDPR has several parks within San Luis Obispo County, encompassing large sections of the central California coastline, extensive watersheds, and upland terrestrial environments.

The mission of CDPR is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation. Balancing the need to protect California's natural resources while providing recreational access to the parks requires the development of sound management strategies that are based on the best available scientific, demographic, and economic information. This is particularly important considering the number of endangered plant and animal species that use these parks as a last safe refuge at the same time that a growing population puts increasing demand on parks.

The Off-Highway Motor Vehicle Recreation (OHMVR) Act of 2003, as amended (PRC § 5090.01 *et seq.*), provides CDPR's mandate for OHV recreation. The OHMVR Division is charged with administering the state's OHMVR Program to provide high-quality OHV recreation opportunities in a manner that is safe, environmentally responsible, and sustainable.

The OHMVR Division's mission statement is as follows (CDPR 2009):

> The mission of the OHMVR Division is to provide leadership statewide in the area of OHV recreation; to acquire, develop, and operate state-owned vehicular recreation areas; and to otherwise provide for a statewide system of managed OHV recreational opportunities through funding to other public agencies. The OHMVR Division works to ensure quality recreational opportunities remain available for future generations by providing for education, conservation, and enforcement efforts that balance OHV recreation impacts with Programs that conserve and protect cultural and natural resources.

SVRAs are selected, developed, and operated to provide OHV recreation opportunities. SVRAs must be developed, managed, and operated for the purpose of providing the fullest appropriate public use of the vehicular recreational opportunities present in accordance with the OHMVR Act (PRC § 5090.01 *et seq.*), while providing for the conservation of cultural resources and the conservation and improvement of natural resource values over time (PRC § 5090.43 (a)). If OHV use results in damage to any natural or cultural resources or damage within sensitive areas, appropriate measures must be taken to protect these lands from any further damage. These measures may include erecting physical barriers and must include restoring natural resources and repairing damage to cultural resources (PRC § 5090.43 (c)).

Oceano Dunes SVRA is committed to present and future protection of the sensitive habitat and species that call the Oceano Dunes District home. Oceano Dunes SVRA's challenge is to balance the needs of the ecological resources and the 2 million people who visit Oceano Dunes District annually for a variety of recreational opportunities, including driving vehicles on the beach and dunes.

2.2.2 History of Park Conservation Planning

Conservation efforts focusing on the covered species originated at Oceano Dunes SVRA in 1990 with the discovery of CLTE at Oso Flaco Lake (Burton and Kutilek 1991a). The following year, biologists found a relatively small colony of CLTE nesting within the OHV riding area boundary, and CDPR immediately protected the colony with a large fenced exclosure (Burton and Kutilek 1991b). After consulting with USFWS and CDFW Biologists, CDPR agreed to annually monitor breeding CLTE at the park and provide active nest protection through a research grant to San Jose State University. The same level of monitoring and protection was extended to SNPL, although at the time the species was not listed under the California Endangered Species Act (CESA) or FESA.

Since the start of annual monitoring of CLTE and SNPL in 1991, conservation efforts at Oceano Dunes SVRA have evolved and expanded over the years to include increased protections, habitat enhancements, and avoidance measures. The proposed HCP reflects the conservation program currently implemented by CDPR, which is based on over 25 years of data and experience. Notable developments in park management and conservation planning at Oceano Dunes SVRA are presented in Table 2-2.

Table 2-2. Timeline of Key Events in Oceano Dunes SVRA Recreation Management and Conservation Planning

Year	Event
1975	CDPR adopts Pismo State Beach and Pismo Dunes SVRA General Development Plan and Resource Management (CDPR 1975).
1982	CDPR amends General Development Plan to include Grover Beach Lodge at Grand Avenue (CDPR 1982b).
1982	California Coastal Commission issues CDP #4-82-300 to install fence in the SVRA and construct entrance station kiosks (CCC 2001).
1988	California OHMVR Act of 1988 (SB 877) requires plant and animal inventories, wildlife habitat protection programs, and monitoring of SVRAs (Kutilek, Shellhammer and Bros 1991).
1989–1990	A comprehensive baseline survey of flora and fauna is conducted by Dr. Michael Kutilek and others from San Jose State University. Study provides basis for the wildlife habitat protection plan and the monitoring program for Oceano Dunes SVRA (Kutilek, Shellhammer and Bros 1991).
1990	Discovery of CLTE at Oso Flaco Lake
1991	Discovery of CLTE nesting in the SVRA riding area. CDPR consults with USFWS and CDFW and agrees to begin annual monitoring of CLTE. First nest exclosures were erected for CLTE.
1991	CDPR publishes Draft EIR for Pismo Dunes SVRA Access Corridor Project to satisfy CDP #4-82-300 condition to identify the least damaging entrance and staging area to the SVRA. Five alternative entrance corridors were evaluated. Grand Avenue is identified as the least environmentally damaging and therefore the preferred alternative (CDPR 1994).
1991	CDPR completes first Wildlife Habitat Protection Plan (WHPP) for Pismo Dunes SVRA (Kutilek, Shellhammer and Bros 1991).
1992	First nest exclosures were erected for SNPL not yet listed.

Table 2-2. Timeline of Key Events in Oceano Dunes SVRA Recreation Management and Conservation Planning

Year	Event
1993	USFWS lists SNPL as a threatened species under FESA (USFWS 1993); USFWS lists marsh sandwort and Gambel's watercress as endangered (USFWS 1993).
1994	State Park and Recreation Commission approves Final EIR and the General Plan Amendment for the Pismo Dunes SVRA Access Corridor Project (CDPR 1994), which concluded that the Grand and Pier Avenue entrances were the Environmentally Preferred alternative, together with the staging area that remains in use today (CDPR 2004).
1994	USFWS lists tidewater goby as threatened species under FESA (USFWS 1994).
1995	CDPR attempts to organize and coordinate multi-stakeholder group to develop conservation strategies for CLTE and SNPL throughout the greater Guadalupe-Nipomo Dunes Complex. The effort proves unsuccessful.
1996	First Wildlife Habitat Monitoring System is designed for Oceano Dunes SVRA based on biological survey work completed (Kutilek, Shellhammer and Bros 1991).
1996	USFWS lists CRLF as a threatened species under FESA (USFWS 1996a).
1996	USFWS authorizes incidental take of CLTE and SNPL at Oceano Dunes SVRA pursuant to a Section 7 consultation from the U.S. Army Corps of Engineers (USACE) regarding permitted maintenance of the sand ramps at the SVRA. Since sand ramps used as primary vehicle access to beach, the biological opinion extended take authorization throughout the portion of SVRA open to vehicles (USFWS 1996b).
1997	Following an apparent take of a SNPL chick in a closed area of the SVRA, CDPR agrees to develop an HCP for portions of the SVRA closed to vehicle use and not under the USFWS and CDFW take authorizations.
1999	CDPR initiates a separate multi-species HCP for the San Luis Obispo (SLO) Coast units.
2001	USACE relinquishes jurisdiction over the maintenance of the sand ramps at the SVRA, and the Section 7 take authorization for the SVRA expires (USFWS 2016a). CDFW withdraws take authorization afforded by the 1996 CDFW biological opinion. CDPR extends seasonal exclosure boundary north from Post 8 to Post 7.
2001	Santa Lucia Chapter of the Sierra Club files suit with U.S. District Court for injunctive relief, alleging unauthorized take of CLTE, SNPL, and steelhead trout in violation of FESA.
2001	CDPR combines the SLO Coast and Oceano Dunes SVRA HCP.
2001	CDPR begins daily monitoring of the riding area for CLTE and SNPL (HCP sections 3.3.1.7 and 3.3.2.7).
2001	Coastal Commission amends CDP #4-82-300 (Amendment 5) establishing daily limits on vehicles within Oceano Dunes SVRA: up to 2,580 street-legal vehicles; 1,000 street-legal vehicles for camping; and 1,720 OHVs and requiring formation of a Technical Review Team and Scientific Subcommittee (CCC 2001).
2001	CDPR convenes an interagency Scientific Subcommittee per Coastal Commission requirement to identify, develop, and evaluate the scientific information needed by decision-makers (Gardner 2001) (CCC 2002).

Table 2-2. Timeline of Key Events in Oceano Dunes SVRA Recreation Management and Conservation Planning

Year	Event
2002	Scientific Subcommittee begins annual recommendations of management and research questions and priorities concerning Oceano Dunes SVRA. Eight-member team of biologists representing state, federal, and county agencies as well as independent biologists. Purpose of subcommittee is to analyze technical data and provide scientific recommendations to the Coastal Commission Technical Review Team (Scientific Subcommittee Oceano Dunes SVRA 2002).
2002	CDPR implements CLTE and SNPL predator management program (HCP sections 3.3.1.7 and 3.3.2.7).
2003	CDPR extends seasonal exclosure boundary north from Post 7 to Post 6 and south 1 mile [Boneyard extension] per Consent Decree and Agreement with Sierra Club (U.S. District Court 2005).
2003	First banding of CLTE chicks (HCP section 3.3.2.4).
2003	CDPR commences first annual monitoring of the fishery in Arroyo Grande Creek (D. Rischbieter 2004).
2005	CDPR issues NOP and USFWS issues NOI for SLO Coast and Oceano Dunes District HCP EIS/EIR. CDPR and USFWS jointly hold public scoping meeting (CDPR 2005b, USFWS 2005a)
2005	Consent Decree between CDPR and Santa Lucia Chapter of the Sierra Club finalized. CDPR agrees to allocate funding for SNPL recovery and habitat improvement, evaluate alternatives to vehicle crossing of Arroyo Grande Creek, and prepare an HCP supporting reduction of the seasonal exclosure to Post 7 (U.S. District Court 2005).
2005	CDPR expanded HCP area to include Pismo Creek portion of Pismo State Beach and reopened discussion with the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to evaluate need for incidental take coverage for steelhead.
2005	Discovery of tidewater goby in Arroyo Creek (D. Rischbieter 2006). CDPR adds tidewater goby to the HCP covered species list.
2005	CDPR evaluates recreational disturbance to water birds at SVRA (Neuman, Page and George 2005). CDPR evaluates effects of nighttime riding on shorebirds at SVRA (Mad River Biologists 2005).
2006	CDPR commissioned study completed, evaluating alternate vehicle access to park rather than current route crossing Arroyo Creek (Condor, Environmental Planning Services Inc. 2006).
2008	NOAA Fisheries determines covered HCP activities unlikely to cause take of steelhead. ITP is not recommended (NOAA Fisheries 2008).
2012	CDPR removed SLO Coast District from Oceano Dunes HCP effort.
2016	USFWS Ventura Fish and Wildlife Office and Office of Law Enforcement Staff meet with State Parks at Oceano Dunes SVRA to discuss the recent violations of FESA and steps to move forward and requests CDPR documentation of avoidance and minimization measures (USFWS 2016b).
2018	CDPR issues NOP and USFWS issues NOI for joint EIS/EIR and holds scoping meeting.

Table 2-2. Timeline of Key Events in Oceano Dunes SVRA Recreation Management and Conservation Planning

Year	Event
2018-2019	CDPR signs Stipulated Order of Abatement (SOA) from SLO Air Pollution Control District (SLOAPCD) requiring CDPR to expand revegetation and seasonal wind fencing and reduce PM emissions by 50 percent. SAG appointed to advise on preparation of a new Particulate Matter Reduction Plan (PMRP) (SLOAPCD 2018b). SOA amended in 2019 further specifying closure and vegetation requirements.
2019-2020	CDPR fences off 48-acres of foredune north of Post 6 closing area to vehicle and camping use in December 2019. Vegetation test plots were planted on 48-acres of foredune in February 2020 for dust control. CDPR administratively reduces daily camping unit limits from 1,000 to 500 vehicles (CDPR 2020).
2020	Coastal Commission approves expansion of dust control area to include the 48-acre foredune and other dust control activities with issuance of two emergency CDPs.
2020	CDPR releases Draft HCP and Draft EIR for public review in February. USFWS releases a Draft EA on the Draft HCP for public review in November.
2020	CDPR closes SVRA to vehicle use (camping, street-legal, and OHV) as part of state-wide park closures in March in response to COVID-19. CDPR reopens SVRA in October with daily vehicle use limits of 1,000 street legal vehicles, 1,000 OHVs, and 150 camping units (CDPR 2021).
2020	Coastal Commission and CDPR enter into a Consent Executive Director Cease and Desist Order (ED-2—CD-01) to address alleged violations of the Coastal Act on July 7, 2020 (CCC 2020).
2020	CDPR releases a PWP (AECOM 2020a) and Draft EIR (AECOM 2020b) for public review.
2021	CDFW in cooperation with CDPR prepares Oceano Dunes Biodiversity Management Plan (CDFW 2021) in January providing recommendations for expanded protections of biological resources until an NCCP is prepared.
2021	Coastal Commission reviews CDP 4-82-300 in March and amends the CDP to modify park operations including eliminating OHV use over a 3-year transition period, limiting vehicular access/camping on the beach to area between West Grand Avenue and Pier Avenue (prohibiting vehicles south of Pier Avenue), closing the Pier Avenue entrance in Oceano, and making changes to protect natural resources in the dunes, Arroyo Grande Creek, and Oso Flaco Lake and protect sensitive species, etc. (CCC 2021). Friends of Oceano Dunes files lawsuit with San Luis Obispo County Superior Court of California (Friends of Oceano Dunes 2021) challenging Coastal Commission's authority to approve the CDP amendment.
2021	CDPR administratively closes Southern Exclosure and adjacent shoreline to public entry year-round temporarily beginning October 9 in response to CDP permitting and litigation (later concluded in 2025). Visitor use numbers are monitored and adjusted (CDPR 2022).
2022	SLOAPCD Hearing Board approves amendment to SOA modifying the design of the PMRP to eliminate emissions in excess of naturally occurring emissions from the SVRA that contribute to downwind violations of the state and federal PM10 air quality standards and specifies modeling requirements and Annual Reports and Work Plans (ARWPs) (SLOAPCD 2022c)

Table 2-2. Timeline of Key Events in Oceano Dunes SVRA Recreation Management and Conservation Planning

Year	Event
2023	San Luis Obispo Superior Court overturns Coastal Commission decision to phase out OHV use at Oceano Dunes in July (State of California Superior Court 2023). Coastal Commission appeals Superior Court decision to District Court of Appeals. CDPR and Coastal Commission stipulate to a limited stay of conditions and agree to leave seasonal exclosure fencing in place year-round during the pendency of the appeal (concluded in 2025).
2023	UFWS proposes rule (88 FR 68370) in October to list northwestern pond turtle and SWPT as threatened species with a 4(d) rule under FESA. USFWS reopens comment period on proposed rule in April 2024 (USFWS 2024).
2023	USFWS proposes rule (88 FR 84252) in December to list the northern and southern distinct population segments (DPS) of WSF as threatened species with a 4(d) rule under FESA (USFWS 2023a).
2024	CDPR restores the daily limit of camping units to 500 in January (Santa Maria Sun 2024).
2024	CDPR completes draft WHPP for the Oceano Dunes SVRA, as required by PRC section 5090.35 (CDPR 2024).
2024	CDPR modifies proposed Draft HCP to address changed conditions, update species data, include pond turtle and western spadefoot as covered species in anticipation of species being approved for listing as threatened under FESA, and reassign take associated with some conservation program management actions from the ITP to the recovery permit.
2025	District Court of Appeal concludes banning OHV use at Oceano Dunes may not be done via a CDP amendment that contradicts the governing LCP and affirms the Superior Court decision on narrow procedural grounds (State of California Court of Appeal 2025). Coastal Commission withdraws its petition to California Supreme Court to overturn lower court decision.
2025	CDPR prepares Draft 2025 ARWP identifying potential vegetation protection areas within the Southern Exclosure to reduce excess dust emissions based on 2025 modeling results.

2.3 PROJECT OBJECTIVES

2.3.1 Purpose of the HCP

The HCP details the conservation effort initiated by the OHMVR Division to protect, conserve, and restore the natural resources of Pismo State Beach, Pismo Lake, and Oceano Dunes SVRA. The purpose of the HCP is to describe the measures the Oceano Dunes District will undertake to avoid, minimize, and mitigate specified visitor- and park operations-related impacts to several listed species. Avoidance and minimization of take of listed species will continue to be the primary HCP objective. Consistent with CDPR's and the OHMVR Division's missions, the HCP is designed to accommodate recreational use within the covered parks while protecting and benefiting numerous populations of threatened and endangered species occurring within those parks.

The primary goals of the HCP are to provide habitat-level protection and management and to minimize human-related impacts to key threatened or endangered wildlife, including the SNPL, CLTE, CRLF, tidewater goby, species proposed for federal listing as threatened including SWPT and WSF, and six state- and/or federally-listed plant species.

The HCP will provide the basis for issuance of an ITP by the USFWS pursuant to section 10(a)(1)(B) of FESA. The HCP, which is a priority objective of management, establishes allowable levels of incidental take of the covered species that may occur as the unintended result of the otherwise lawful activities of park visitors and/or park staff and describes measures to minimize and mitigate the incidental take to the maximum extent practicable. The conservation program in the HCP also describes the conservation program activities that are authorized by a FESA section 10(a)(1)(A) Recovery Permit, which permits take that arises during measures taken to enhance the propagation or survival of a listed species.

Another goal of the HCP is to have certain elements of the program assist the Oceano Dunes District with meeting resource management goals and objectives identified in the parks' general plan.

2.3.2 Project Objectives

CDPR Oceano Dunes District is responsible for managing the state's parkland in a manner that both protects natural resources consistent with governing laws and promotes accessible recreation. CDPR's objectives for the proposed HCP are to:

- Avoid, minimize, and mitigate the effects of take of the covered species.
- Implement biological goals and objectives for covered species (HCP section 5.5) to promote species and habitat conservation.
- Obtain a permit from the USFWS to authorize incidental take of covered species and ensure FESA compliance.
- Operate the covered park units in a manner that provides for public use and enjoyment while conserving park resources, consistent with the overall mandate of CDPR and the specific unit classifications, as prescribed by the PRC.
- Preserve, manage, and expand, as appropriate, motorized and non-motorized recreational opportunities.
- Manage, maintain, and maximize, as appropriate, access to the unique coastal camping and recreational amenities in the HCP area.
- Facilitate implementation of permit, legal settlement, and judicial or quasi-judicial order conditions and obligations applicable to one or both covered units (Pismo State Beach and/or Oceano Dunes SVRA).

2.4 PROJECT CHARACTERISTICS

CDPR has prepared an HCP to manage plant and animal species for compliance with FESA. The HCP formalizes the conservation program for these species that has been developed and implemented over time and includes some new and modified activities. The HCP covers existing lawful activities occurring at the parks as authorized under the parks' enabling legislation as well as proposed changes and contemplated future changes to park operations. The HCP is not a program for managing general operations at Pismo State Beach and Oceano Dunes SVRA.

Decisions concerning park unit operations are governed by existing laws and regulations, superintendent orders, agency permits and agreements, and court orders. The purpose of the HCP is limited to establishing a conservation program for avoidance and minimization of impacts to species covered by an ITP. The HCP governs park operations impacting covered federally-listed species. The proposed project is CDPR approval and implementation of the HCP including specific changes to park operations identified in section 2.4.2.2.

2.4.1 HCP Covered Species

Covered species were chosen based on their listing or potential listing status as a federally-listed threatened or endangered species and the potential for take within the HCP area. Table 2-3 lists the species addressed by the HCP. Four of these species are listed animals, two are animals proposed for listing, and six are listed plants. Although FESA does not prohibit take of listed plant species, CDPR has included them in the HCP and requests assurances for them under USFWS's "No Surprises" assurances rule, discussed in HCP section 6.5.

CLTE is both a state-listed endangered species under CESA and a fully protected state species under the California Fish and Game Code in addition to being a federally-listed endangered species. As a fully protected state species, incidental take of CLTE can only be authorized under California law via an NCCP. See EIR section 2.5 below for further discussion.

In addition to the covered species, other special-status species have either been documented within 5 miles of the HCP area and/or are included on the USFWS Resource Report for the HCP area. Appendix A of the HCP lists these species along with an explanation as to why each species is not included as a covered species. These or other species could be added to the ITP via an amendment to the HCP if they become listed and/or otherwise require incidental take authorization during the duration of the permit.

Table 2-3. HCP Covered Species

Species Common Name (*Scientific Name*)	Listing Status	
	State	Federal
Animals		
Western snowy plover (*Charadrius nivosus nivosus*)[1]	CSSC	FT
California least tern (*Sternula antillarum browni*)	SE, SP	FE
Southwestern pond turtle (*Actinemys pallida*)	CSSC[2]	FPT
California red-legged frog (*Rana draytonii*)	CSSC	FT
Western spadefoot (*Spea hammondii*)	CSSC	FPT
Tidewater goby (*Eucyclogobius newberryi*)	CSSC	FE[3]
Plants[4]		
Marsh sandwort (*Arenaria paludicola*)	SE	FE
La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*)	ST	FE
Surf thistle (*Cirsium rhothophilum*)	ST	–
Beach spectaclepod (*Dithyrea maritima*)	ST	–
Nipomo Mesa lupine (*Lupinus nipomensis*)	SE	FE
Gambel's watercress (*Nasturtium* [*Rorippa*] *gambelii*)	ST	FE

Table 2-3. HCP Covered Species

Species Common Name (*Scientific Name*)	Listing Status	
	State	Federal

Listing Status:

FE	Federally listed as endangered	SE	State listed as endangered
FT	Federally listed as threatened	ST	State listed as threatened
FTP	Federally proposed as threatened	CSSC	California species of special concern
SP	California fully protected		

[1]=*Anarhynchus nivosus nivosus* (American Ornithological Society 2024).

[2]CDFW applies CSSC status to western pond turtle (*Emys marmorata*).

[3]On March 13, 2014, the USFWS proposed to downlist tidewater goby from federal endangered to threatened (USFWS 2014).

[4]Listed plants are addressed by this HCP, but no take authorization is requested from the USFWS or required under FESA.

Note: Steelhead (*Oncorhynchus mykiss irideus*; South-Central California Coast Ecologically Significant Unit) is not proposed for coverage per letter from NOAA Fisheries (NOAA Fisheries 2008) concluding that covered activities are not likely to take steelhead with the implementation of avoidance and minimization measures (AMMs). See HCP Appendix A for additional supporting factors.

2.4.2 HCP Covered Activities

Together, Pismo State Beach and Oceano Dunes SVRA are visited by almost 2 million people each year. Visitors come to enjoy wide-ranging pursuits, from OHV recreation and camping to bird watching and horseback riding. To support this high level and diversity of visitation, the Oceano Dunes District has an extensive operational program, providing visitor services, public safety, facilities maintenance and repair, and resource management addressing protection and enhancement of native ecosystems and cultural resources. Operations and maintenance activities may be performed by CDPR personnel, contractors, concessionaires, lessees, and/or other non-CDPR entities. All of the components of this operational program are covered activities under the HCP. In addition, certain management activities that are HCP-required management actions may also result in take and are considered covered activities.

HCP covered activities are summarized below and described in detail in Chapter 2 of the HCP. Most of the HCP covered activities listed below have been ongoing in the HCP area for many years. SNPL chick and egg capture for captive rearing, SWPT and WSF monitoring, dune slack restoration, expanded invasive predator control of aquatic species, mechanical trash removal, reduction of the seasonal exclosure boundaries, and CDPR's use of UAS for data collection are new activities identified in the HCP being specifically proposed by CDPR for current implementation in this CEQA review. Potential future activities contemplated by CDPR are included in the HCP for authorization under FESA in a separate USFWS process but are not currently proposed for project approval by CDPR action (see section 2.4.2.3). These future activities are not included in the proposed project subject to this CEQA review but are considered reasonably foreseeable projects and therefore included in the cumulative impact analysis (see section 3.3.3). A summary list of all existing, proposed, and potential future HCP covered activities is presented in Table 2-4.

2.4.2.1 Continuing Existing Park Operations

Park Visitor Activities. Close to 2 million people visit the Oceano Dunes District every year engaging in pedestrian, camping, motorized vehicle, and other recreational activities. Park visitor activities covered by the HCP (CA-1 through CA-11) include motorized recreation; camping; pedestrian activities such as picnicking, sunbathing, swimming, and hiking; bicycling and golfing; fishing; dog walking (on leash only); equestrian recreation; boating/surfing; and aerial/wind-driven activities including kiteboarding. Any increased visitation during holidays and special events is included as covered activities (although visitation never exceeds CDP limits). Examples of past permitted special events include poker runs, hucking (vehicles driving up and jumping off the top of sand dunes), vintage car races, concerts, group campfires and receptions, sports, weddings, video production, and still photography. These visitor activities presently occur at the park; no changes to these types of activities are proposed by CDPR. The areas where various park visitor activities are allowed are shown on Figure 2-3. See HCP section 2.2.1 for a complete description of park visitor activities.

Natural Resources Management Program. Natural resources management activities covered by the HCP or a 10(a)(1)(A) Recovery Permit (CA-12 through CA-19) include covered species management (e.g., habitat protections/fencings, surveys, monitoring, banding, salvage and rescue, predator control), vegetation planting and habitat restoration, habitat monitoring, invasive plant and animal control, prescribed fire management, installation of fences and signs to prevent trespass in sensitive areas, and water quality monitoring projects. SNPL and CLTE habitat management includes removal of non-native species (e.g., sea rocket) within exclosures to mimic a natural blowout condition. Created blowouts are no greater than 0.25 acres in size in any one location and combine for no more than 2-3 acres in any one year. These natural resource management activities occur as existing park operations. CDPR proposes changes to natural resources management activities (SNPL chick and egg capture for captive rearing,[4] monitoring for SWPT and WSF, dune slack restoration, and formalized invasive predator control of aquatic species) as described in EIR section 2.4.2.2. See HCP section 2.2.2 for a complete description of the natural resources management program.

Park Maintenance. Park maintenance activities include maintaining campgrounds, ramps, roads, and trails; collecting garbage; erecting and maintaining fences; and riparian vegetation maintenance. Park maintenance activities covered under the HCP (CA-20 through CA-31) address the following facilities: campgrounds, general facilities, trash bins, wind fencing, sand ramp, beach entrances from street, spillway and drainages, perimeter and vegetation island fencing, cable fencing, and boardwalks. Covered activities include the use of heavy equipment in all areas of the SVRA and minor grading (less than 100 cubic yards). These maintenance activities occur as existing park operations. They vary in frequency dependent upon the maintenance needed. Previous CEQA review has been completed for routine riparian maintenance activities (CA-26) (TRA Environmental Sciences, Inc. 2012), and the continuation of this activity is permitted by CDFW via a Streambed Alteration Agreement (1600-2012-0001-R4). CDPR proposes one addition to general maintenance activities (mechanical trash removal; CA-21) as described below in EIR section 2.4.2.2. No other changes to park maintenance

[4] Although chick and egg capture is a natural resource management activity, it is proposed as a method of avoiding take caused by recreation and other park operations.

activities are proposed by CDPR. See HCP section 2.2.3 for a complete description of park maintenance activities.

Visitor Services. General park operations include patrolling beaches and trails; conducting public safety, law enforcement, medical aid, and emergency response activities; and providing other visitor services. These services may be conducted by CDPR personnel, contractors, other agencies, for-profit and not-for-profit entities, concessionaires, or lessees. Visitor services covered by the HCP (CA-32 through CA-39) include ranger, lifeguard, and park aide patrols; emergency response by CDPR staff; access by non-CDPR vehicles; American Safety Institute (ASI) courses, including all-terrain vehicle (ATV) and recreational utility vehicle (RUV) courses; concessions; Pismo State Beach Golf Course operations; Grover Beach Lodge and Conference Center; and natural history and interpretation programs, including stationary programs, roving interpretation, interpretive walks, and driving tours. These activities are all ongoing park operations except for the Grover Beach Lodge and Conference Center (CA-38), which has been previously reviewed under CEQA (SWCA Environmental Consultants 2012) and approved for development but not constructed. Grover Beach Lodge is addressed as a cumulative project (see Table 3-1). No changes to the existing park visitor services are proposed by CDPR. See HCP section 2.2.4 for a complete description of visitor services.

Other Activities. The HCP identifies additional covered activities that are not confined to a single category listed above or that may fall outside of the general categories. Motorized vehicle crossing of Pismo/Carpenter, Arroyo Grande, and Oso Flaco creeks (CA-40); dust control activities (CA-44); cultural resources management (CA-45); CDPR management of agricultural lands (CA-46); maintenance of a bioreactor on agricultural lands (CA-47); and pesticide use (CA-51) are ongoing activities in the HCP area. No changes to these covered activities are proposed by CDPR. New or modified other activities including reduction of seasonal exclosures and CDPR use of UAS are described below in EIR section 2.4.2.2. See HCP section 2.2.5 for a complete description of these other activities.

2.4.2.2 Proposed Changes to Park Operations

The following activities are changes to existing park operations proposed in the HCP. Activity locations are shown in Figure 2-8.

SNPL/CLTE Management (CA-12b) – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreational Activities and Other Non-Covered Species Management Activities. As part of the ongoing SNPL and CLTE management program, CDPR currently collects for captive rearing some SNPL chicks or eggs identified as abandoned and considered vulnerable because of unusual circumstance (e.g., an attending adult being predated). However, to date, CDPR does not collect SNPL chicks or eggs if they are observed to be threatened by covered activities, such as motorized or pedestrian recreation. Instead, CDPR staff attempt to protect nests in vulnerable locations (e.g., with single-nest exclosures) and direct chicks out of harm's way (e.g., back to the seasonal exclosure). To further minimize loss of eggs and chicks in the HCP area, per AMM 22, CDPR proposes to expand captive rearing to include SNPL chicks or eggs that are deemed threatened by covered activities that are not related to covered species management (e.g., new proposed activities, motorized recreation). Therefore, in the future, if SNPL chicks are deemed to be threatened by a covered activity, despite CDPR's efforts to direct chicks back to the protection of the seasonal exclosure and reunite them with attending adults, CDPR staff may collect SNPL chicks and transfer them to an approved wildlife facility. Similarly, if an SNPL nest is initiated in an area that is deemed vulnerable to covered

activities, such as motorized recreation, CDPR may opt to transfer those eggs to an approved wildlife facility. In these instances, captive rearing would be the only option to prevent mortality or injury to those eggs or chicks deemed vulnerable by the covered activity. These activities would only be conducted by a USFWS-approved or 10(a)(1)(A) permitted biologist. All chicks would be raised in a manner where they will not imprint on humans.

If sufficient bands are available and other logistics are satisfied, all fledglings would be color-banded to individual prior to releasing them back into the wild to assist in tracking bird movements, survival, and future reproductive success. In all cases, the need for captive care would be determined by a qualified Environmental Scientist, would be used selectively, and would be dependent on an approved facility having the capacity to accept the eggs and/or chicks. If time permits, CDPR staff would confer with USFWS prior to conducting salvage and rescue activities. See HCP section 2.2.2.1.2 for a discussion of captive rearing.

Tidewater Goby and Salmonid Surveys (CA-13) – Stranded Tidewater Goby Salvage. Tidewater goby may become stranded in Arroyo Grande or Pismo creeks due to upstream activities from other agencies occurring outside of the HCP area (e.g., flood control management). In the event tidewater goby are stranded, CDPR would provide salvage to rescue and relocate tidewater goby to offset HCP impact to tidewater goby.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. SWPT and WSF are included in the Draft HCP. These species are not presently managed at Oceano Dunes. CDPR proposes conducting surveys to establish baseline data for these species. Survey methods would likely include visual encounter surveys and may include other methodologies such as acoustic monitoring, e-DNA sampling, or funnel traps (SWPT). Surveys would be conducted by qualified biologists in accordance with the protocols in effect at the time of surveys. Avoidance measures would allow relocating species if determined to be at risk (General AMM 3 for SWPT, CRLF, and WSF). See HCP section 2.2.2.1.4 for a discussion of SWPT and WSF surveys and monitoring.

Habitat Restoration Program (CA-16) – Dune Slack Restoration. CDPR would restore at least 0.75 acres of dune slack wetland associated with either Surprise Lake and/or Jack Lake to offset impact to SWPT, CRLF, and WSF (Figure 2-8). The lakes are in decline and currently provide poor quality breeding habitat for these species. CDPR will implement restoration projects that remove emergent vegetation (e.g., tule and cattails) and establish deep pool habitat with transitional banks and swales to support SWPT, CRLF, WSF, and wetland species. Furthermore, CDPR has committed to conducting predator management with a goal of zero density of invasive exotic predators including crayfish, bullfrog, red-eared slider, and non-native warm water fish at the restored wetland habitat during the term of the HCP. See HCP section 5.3.2 for discussion of mitigating and offsetting incidental take impacts.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Species Predator Control. Invasive aquatic species predators are presently removed from the park opportunistically when discovered during surveys and other chance events. The HCP would formalize removal of invasive or other non-native aquatic species as part of CDPR's predator management program to offset impacts to SWPT, CRLF, and WSF by addressing known and emerging threats to these species. Invasive animal control may include activities like crayfish trapping, bullfrog removal, or trapping red-eared sliders. Those activities could involve new activities of installing funnel traps, direct targeting of individuals, and other work in aquatic habitats. See HCP section 5.3.2 for discussion of mitigating and offsetting incidental take impacts.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal. CDPR proposes adding mechanical trash removal to supplement the ongoing trash control program of its maintenance operations. CDPR would use a tractor-towed rake to collect nails, broken glass, and other debris that may pose a hazard to visitors or wildlife from open sand areas. The raking action would actively disturb the surface of the sand and remove debris and organic material from the top approximately 2 to 6 inches of the sand surface. Mechanical trash removal has occurred on test plots in 2019 and is now occurring in broader plots on a trial basis. As proposed, it would occur in the Grand Avenue and Pier Avenue entrance areas, the Post 2 dumpster areas, and Post 2 south to Post 4.5. In addition, mechanical trash removal would occur in the open area to Post 6, which is east of the 48-acre foredune area (Figure 2-8).

Mechanical trash removal operations are designed and implemented to occur seasonally, from February through May and September through December. These timeframes establish general periods where the greatest effectiveness and efficiency of mechanical trash removal activities is expected. These timeframes consider winter rain periods (December through February), which may make mechanical trash removal activities less effective, and summer visitation (May through September), which may make mechanical trash removal activities less efficient with increased attendance.

Mechanical trash removal would only occur above the active wrack line, would not occur in vegetated areas or near any fenced closed areas where known SNPL or CLTE nesting occurs (such as the Southern Exclosure or 48-acre foredune area), and would avoid creeks and lagoons. Equipment operating speed would be 3 to 5 miles per hour (mph) and would not exceed 10 mph. Collected debris would be deposited in the dumpsters. Work is expected to be conducted in the morning to avoid peak visitation. A maximum of approximately 10 to 20 acres could be treated on any 1 day. Given time constraints, speed limits, and other factors, fewer acres may be treated. In most cases, particular areas would be cleaned no more than twice a year, unless extenuating circumstances require additional mechanical trash removal.

Trash removal would focus on a narrow (200- to 300-foot-wide) 140-acre band running from Grand Avenue to Post 6 with the exception of the shoreline area from Post 4.5 to Post 6. Other areas may be treated pending resource staff review and within the above setback parameters. See HCP section 2.2.3.2 for a discussion of general facilities maintenance.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). CDPR is proposing a management change associated with the seasonal exclosure for the SNPL and CLTE for the purpose of providing additional opportunity for year-round recreation if HCP conservation targets for SNPL and CLTE and other regulatory program requirements at the park can be met. The Boneyard Exclosure is located at the southern end of the riding area near Oso Flaco (Figure 2-3). CDPR proposes to refrain from fencing off the approximately 47-acre (dependent upon dune topography) East Boneyard Exclosure during the first breeding season under the HCP, if opening the area is consistent with the requirements of other programs. The eastern fence line of East Boneyard is currently not being maintained as a predator fence due to the rapidly shifting open sand dunes in the area that make fencing difficult to maintain. Although the Boneyard Exclosure historically played a more significant role in CLTE and SNPL nesting, since 2005 it has only been used 11 times by SNPL for nesting and has not been used by CLTE. As a result, the Boneyard Exclosure does not appear to contribute to CLTE and SNPL reproductive success in the HCP area.

Currently, visitation by park users in South Oso Flaco is light during the breeding season because there is no public access via the open riding area. Pedestrian access from the riding area to South

Oso Flaco is through Boneyard gate (Figure 2-3), which is seasonally inaccessible due to Boneyard exclosure fencing. When East Boneyard fencing is removed, the Oso Flaco fence at the south end of East Boneyard would be arranged to maintain blocked access to the East Boneyard gate during the breeding season.

The 6 Exclosure comprises the area between Post 6 and Post 7, which extends 0.5 mile of shoreline and covers approximately 62 acres. The Southern Exclosure was initially extended north to Post 6 in 2003 as a result of a Consent Decree that CDPR entered into with a local Sierra Club chapter in 2005.[5] Specific to the HCP process, the Consent Decree stipulated that CDPR "shall support a northern [seasonal exclosure] boundary of Distance Marker Number 7, notwithstanding the terms of this consent decree." Consistent with this stipulation, if CDPR determines that exclosure reductions are supported by appropriate considerations, CDPR may reduce the 6 Exclosure in 328-foot increments (approximately 7.5 acres) from Post 6 south toward Post 7 (or CDPR may implement alternative incremental reductions of similar acreage to meet management needs). At CDPR's discretion, and in consideration of specific criteria for SNPL and CLTE nesting success and population size and if in compliance with other regulatory programs at the park (see HCP section 5.2.3 for a more detailed explanation of the criteria for reducing the exclosed area), CDPR may ultimately no longer fence the 62-acre exclosure. CDPR would work with USFWS and the appropriate stakeholders to develop a 6 Exclosure reduction that achieves additional riding area while protecting nesting shorebirds. Based on this approach, a minimum of 8 years would be required to completely unfence the 6 Exclosure. If the criteria are not met for either species, the 6 Exclosure would be restored in the following breeding season in coordination with the USFWS. Decisions to restore the 6 Exclosure fence to ensure the criteria are met would be based on the best available science and could include additional management actions (e.g., predator management) along with restoring the exclosure size. Proposing a reduction in the 6 Exclosure is consistent with the 2005 Consent Decree and the OHMVR Division's mission to balance recreation and natural resource management. The incremental reduction of the 6 Exclosure will only be considered if it is consistent with compliance of other regulatory programs in the HCP area. Note that acreages are approximate, and the seasonality of use may vary over the permit term depending on operational needs and requirements of other programs.

See HCP section 2.2.5.11 for a discussion of the East Boneyard Exclosure and 6 Exclosure reductions.

CDPR Unmanned Aircraft System (UAS) Use for Park Activities (CA-52). CDPR may use UAS (drones) in the HCP area to reduce the time and cost associated with data collection, especially in more remote areas. All UAS operations will be consistent with CDPR policies regarding UAS use. The immediate need for UAS use is for assessing habitat for habitat enhancement activities. CDPR may use UAS for other activities as staff experience and accessibility increases. Currently, CDPR does not have authorization to fly UAS during the nesting season and over known nesting areas. CDPR proposes approving the potential use of UAS during both the nesting and non-nesting periods and over occupied areas (nesting and roosting areas) for data collection purposes as needed to meet the monitoring or management objectives. All UAS activity would be implemented in a way that minimizes impacts to nesting

[5] Although the Consent Decree was not finalized until 2005, it included implementation of exclosure boundary adjustments in 2003. The initial extension, in 2003, was narrower than the current configuration, which began in 2004.

or roosting SNPL and CLTE. The 2021 Biodiversity Management Plan places limits on use of UAS during the nesting season; however, the Biodiversity Management Plan is an interim step until the completion of a NCCP. CDPR has begun using UAS for law enforcement operations and emergency response. Specific practices described in the UAS Operations Manual (CDPR, Oceano Dunes District 2024) allow UAS work to occur with a minimum amount of disturbance as described in the UAS AMMs. See HCP section 2.2.5.13 for a discussion of CDPR's use of UAS.

2.4.2.3 Contemplated Future Changes to Park Operations and Management

The HCP covered activities include potential future activities being contemplated by CDPR and subject to separate CEQA review. Other than Dust Control Activities (CA-44), these activities are not currently planned. These activities include:

- SNPL Adult Banding (CA-12b; HCP Section 2.2.2.1.2)
- Habitat Manipulation in Southern Exclosure (CA-12b: HCP Section 2.2.2.1.2)
- Propagation and Outplanting of Listed Plant Species (CA-15; HCP section 2.2.2.1.5)
- Habitat Restoration Program – California Vegetation Treatment Program (CalVTP; CA-16; HCP section 2.2.2.2)
- Cable Fence Replacement (CA-28; HCP section 2.2.3.9)
- Grover Beach Lodge and Conference Center (CA-38; HCP section 2.2.4.7)
- Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41; HCP section 2.2.5.2)
- Limited Trail Riding (CA-42; HCP section 2.2.5.3)
- Safety and Education Center Replacement (CA-43; HCP section 2.2.5.4)
- Dust Control Activities – new activities (CA-44; HCP section 2.2.5.5)
- Oso Flaco Lake Boardwalk Replacement (CA-48; HCP section 2.2.5.9)
- Special Projects (CA-49: HCP section 2.2.5.10)

These activities may or may not be proposed by CDPR in the future. CDPR may consider habitat manipulation in the Southern Exclosure (CA-12b) at a larger scale (i.e., ≥5 acres) to reduce vegetation density focusing on invasive species and larger dune hummocks in areas where SNPL and CLTE nesting is reduced. Pismo Creek Estuary seasonal [floating] bridge (CA-41) has been considered in the past by CDPR (TRA Environmental Sciences, Inc. 2013) and may be considered again. Limited Trail Riding (CA-42) was included in CDPR's PWP, which is a separate park improvement planning process ~~not actively being pursued~~currently on hold. The trail riding project remains a potential future project anticipated by CDPR. Additionally, CDPR may implement future dust control activities (CA-44) as may be needed to implement the Dust Control Program such as installing track-out control at Pier Avenue new backdune planting areas, and preservation of foredune vegetation in the Southern Exclosure. The safety and education center (CA-43) and Oso Flaco Lake boardwalk (CA-48) are existing facilities with recognized future maintenance needs. Special projects (CA-49) is a broad category that covers replacement or expansion of existing facilities within the existing facility footprint and new facilities consistent with existing facilities, not to exceed a cumulative total of 35 acres over the HCP permit term.

By including these potential future projects as covered activities in the HCP now, it is CDPR's goal to be proactive administratively and to avoid a future ITP amendment process and NEPA review of the changed ITP should these activities become proposed projects that require ITP coverage. Including these contemplated projects in the HCP as covered activities does not constitute authorization by CDPR. These projects require a subsequent proposal by CDPR, environmental review pursuant to CEQA, and permit issuance by other agencies where warranted (EIR section 1.3 and section 2.5). Accordingly, these potential covered activities are evaluated in the cumulative impact analysis in each environmental chapter (see EIR section 3.3)

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Table 2-4. Summary of Existing, Proposed, and Potential Future Covered Activities under the HCP

Park Operation	Existing Activity[1]	Proposed New Activity[2]	Potential Future Activity[3]
Park Visitor Activities	CA-1: Motorized Recreation; CA-2: Camping; CA-3: Pedestrian Activities (such as picnicking, sunbathing, swimming, and hiking); CA-4: Bicycling and Golfing; CA-5: Fishing; CA-6: Dog Walking (on leash only); CA-7: Equestrian Recreation; CA-8: Boating/Surfing; CA-9: Aerial/Wind-Driven Activities; CA-10: Holidays; and CA-11: Special Events.	**None.** The types of visitor uses or special events occurring in the HCP area would not be modified by the HCP. Areas open to visitor uses would be modified as described below in Other Covered Activities. Special events sporadically occur on an ongoing basis. Individual events are reviewed by CDPR when proposed, to determine suitability of the proposed use and the appropriate level of environmental review pursuant to CEQA.	**None.** CDPR does not anticipate new categories of park visitor uses beyond those that are presently occurring.
Natural Resources Management	CA-12a: SNPL/CLTE Protection Fences; CA-12b: SNPL/CLTE Monitoring and Management; CA-13: Tidewater Goby and Salmonid Surveys; CA-14: Monitoring and Management for Listed Herpetological Resources; CA-15: Listed Plant Monitoring, Propagation, and Habitat Enhancement; CA-16: Habitat Restoration Program (including seed collection, propagation, planting, monitoring, and minor grading to access work areas); CA-17: Invasive Plant and Animal Control (including prescribed fire, herbicide application, and hand clearing of paths to access work areas); CA-18: WHPP (including small mammal trapping, point counts, shorebird counts, and coverboards); CA-19: Water Quality Monitoring Projects.	CA-12b: SNPL/CLTE Management: SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreational Activities and Other Non-Covered Species Management Activities; CA-13 Tidewater Goby and Salmonid Surveys – Stranded Tidewater Goby Salvage CA-14: Monitoring and Management for Listed Herpetological Resources – SWPT and WSF Monitoring; CA-16: Habitat Restoration Program – Dune Slack Restoration CA-17: Invasive Plant and Animal Control – Invasive Aquatic Species Predator Control	CA-12b: SNPL Adult Banding; CA-12b: Habitat Manipulation in Southern Exclosure (larger scale; ≥5 acres); CA-15: Listed Plant Management – Propagation and Outplanting; CA-16: Habitat Restoration Program – CalVTP

Table 2-4. Summary of Existing, Proposed, and Potential Future Covered Activities under the HCP

Park Operation	Existing Activity[1]	Proposed New Activity[2]	Potential Future Activity[3]
Park Maintenance	CA-20: Campground Maintenance (including mowing, hazardous tree program, restroom upkeep, and housekeeping); CA-21: General Facilities Maintenance; CA-22: Trash Control; CA-23: Wind Fencing Installation, Maintenance, and Removal; CA-24: Sand Ramp and Other Vehicular Access Maintenance (including roadway resurfacing); CA-25: Street Sweeping; CA-26: Routine Riparian Maintenance (including spillway maintenance, culvert maintenance, vegetation management along trails and roads, emergent vegetation control, and minor flood control maintenance for ditch function and vegetation control); CA-27: Perimeter and Vegetation Island Fence Installation, Maintenance, and Removal; CA-28: Cable Fence Maintenance; CA-29: Heavy Equipment Response; CA-30: Minor Grading (less than 100 cubic yards); CA-31: Boardwalk and Other Pedestrian Access Maintenance.	CA-21: General Facilities Maintenance: Mechanical Trash Removal[4]	CA-28: Cable Fence Maintenance – Replacement
Visitor Services	CA-32: Ranger, Lifeguard, and Park Aide Patrols; CA-33: Emergency Response (including accidents, injuries, distressed vessels, search and rescue); CA-34: Access by Non-CDPR Vehicles; CA-35: ASI Courses, (including ATV and RUV courses); CA-36: Beach Concessions; CA-37: Pismo State Beach Golf Course Operations; CA-39: Natural History and Interpretation Programs (including stationary programs, roving interpretation, interpretive walks, driving tours).	**None.** The types of visitor services activities occurring in the HCP area would not be modified by the HCP. Visitor services would continue at the same frequency and intensity and in the same area as presently occurring.	CA-38: Grover Beach Lodge and Conference Center (an approved use that is not yet built)

Table 2-4. Summary of Existing, Proposed, and Potential Future Covered Activities under the HCP

Park Operation	Existing Activity[1]	Proposed New Activity[2]	Potential Future Activity[3]
Other Activities	CA-40: Motorized Vehicle Crossing of Pismo/Carpenter, Arroyo Grande, and Oso Flaco Creeks; CA-44: Dust Control Activities; CA-45: Cultural Resources Management; CA-46: CDPR Management of Agricultural Lands; CA-47: Maintenance of a Bioreactor on Agricultural Lands; CA-51: Use of Pesticides	CA-50: Reduction of the Boneyard Exclosure and 6 Exclosure; CA-52: CDPR UAS Use for Park Activities	CA-41: Pismo Creek Estuary Seasonal (Floating) Bridge; CA-42: Limited Trail Riding; CA-43: Replacement of the Safety and Education Center; CA-44: Dust Control Activities – New backdune planting areas; Install new Pier Avenue track-out control; CA-48: Oso Flaco Lake Boardwalk Replacement; CA-49: Special Projects.

Notes:

[1] Existing Covered Activity includes those activities that are already occurring in the park. No changes are proposed to these activities by the HCP. These activities are considered environmental baseline in the EIR analysis.

[2] Proposed New Activity includes those activities that are proposed by CDPR in the HCP. These activities are considered new project actions subject to full environmental review in the EIR analysis.

[3] Potential Future Activity includes those activities that could be proposed by CDPR in the future. These future activities will be assessed to determine the need for further environmental review under CEQA. This also includes Grover Beach Lodge and Conference Center (CA-38), which has been approved and permitted but has not yet been constructed.

[4] Currently being implemented on a trial basis

2.4.3 HCP Program Details

The HCP conservation program will be implemented to protect and promote recovery for listed and covered species in the HCP area by protecting and, where appropriate, enhancing their populations. The conservation program is a program of conservation measures (i.e., actions taken to avoid or minimize take, compensate for loss of habitat, or provide for the conservation of covered species) that, when implemented, will achieve the biological goals and objectives of the HCP while meeting the other primary project objectives described in EIR section 2.3.2. The conservation program relies on several types of conservation measures including avoidance and minimization, habitat enhancement, habitat restoration, habitat creation, and population enhancement. The HCP conservation program is described in detail in Chapter 5 of the HCP and is summarized below.

2.4.3.1 Biological Goals and Objectives for Covered Species

HCPs must establish biological goals and objectives (USFWS and NOAA Fisheries 2016). The biological goals of an HCP are the broad, guiding principles for the operating conservation program and the rationale behind the minimization and mitigation strategies. The purpose of the biological goals is to ensure that the operating conservation program in the HCP is consistent with the conservation and recovery goals established for the species. The goals are also intended to provide to the applicant an understanding of why these actions are necessary. These goals are developed based upon the species' biology, threats to the species, the potential effects of the covered activities, and the scope of the HCP. The biological objectives of an HCP are the different component or measurable targets needed to achieve the biological goals.

The biological goals and objectives of the HCP for covered species are listed below in Table 2-5. Performance standards and success criteria are used to determine whether the goals and objectives are met and the success of the overall conservation program. These standards and criteria are described in HCP section 5.5.

Table 2-5. HCP Goals and Objectives

Western Snowy Plover	
Goal 1: Continue to contribute to SNPL recovery locally and range-wide.	
Objective 1.1:	Manage the SNPL population breeding in the HCP area to meet or exceed the HCP area management potential breeding number target of 180 breeding SNPL averaged over a moving 3-year window.
Objective 1.2:	Maximize the reproductive success of SNPL in the HCP area to maintain a 3-year moving average of at least 1.0 fledgling per male.
Objective 1.3:	Increase the habitat quality through habitat enhancement and restoration.
Objective 1.4:	Reduce predation.
Objective 1.5:	Reduce disturbance by recreational users and predators.

Table 2-5. HCP Goals and Objectives	
Goal 2: Minimize conflicts between park users, park operations, and SNPL through a combination of education, avoidance and minimization measures, and enforcement of park rules and regulations.	
Objective 2.1:	Provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of SNPL, the significance of the HCP area habitats for this species and its recovery, the importance of CDPR's protection and monitoring efforts, the impacts of predators on this species, and the importance of working together to conserve the species and its habitat.
Objective 2.2:	Provide adequate enforcement to ensure that park visitors do not violate restrictions that protect SNPL and its habitat.
Objective 2.3:	Implement recreation and other use restrictions to avoid and minimize take of SNPL.
Objective 2.4:	Conduct all maintenance and other park operations in a manner that avoids and minimizes take of SNPL.
California Least Tern	
Goal 1: Continue to contribute to CLTE recovery locally and range-wide.	
Objective 1.1:	Maintain a five-year running average of 35 breeding pairs of CLTE in the HCP area.
Objective 1.2:	Maximize the reproductive success of CLTE in the HCP area to maintain a 3-year moving average of at least 0.8 fledglings per nesting pair.
Objective 1.3:	Increase the habitat quality through habitat enhancement and restoration.
Objective 1.4:	Reduce predation.
Objective 1.5:	Reduce disturbance by recreational users and predators.
Goal 2: Minimize conflicts between park users, park operations, and CLTE through a combination of education, avoidance and minimization measures, and enforcement of park rules and regulations.	
Objective 2.1:	Provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of CLTE, the significance of the HCP area habitats for this species and its recovery, the importance of CDPR's protection and monitoring efforts, the impacts of predators on this species, and the importance of working together to conserve these species and their habitat.
Objective 2.2:	Provide adequate enforcement to ensure that park visitors do not violate restrictions that protect CLTE and their habitat.
Objective 2.3:	Implement recreation and other use restrictions to avoid and minimize take of CLTE.
Objective 2.4:	Conduct all maintenance and other park operations in a manner that avoids and minimizes take of CLTE.
Southwestern Pond Turtle	
Goal 1: Expand understanding of SWPT population status and trends within the HCP area	
Objective 1.1: Identify and assess the status of SWPT within known occupied and potential habitat.	
Objective 1.2: Refine understanding of threats to SWPT from covered activities and opportunities for habitat enhancement.	

Table 2-5. HCP Goals and Objectives	
Goal 2: Minimize the effects of park operations, visitor activities, and management activities on SWPT and suitable SWPT habitat.	
Objective 2.1:	When necessary, to limit substantial encroachment that could significantly degrade suitable SWPT habitat, close suitable habitat with symbolic fencing and signage, including Pismo Creek Lagoon, Pismo Lake, Meadow Creek, Carpenter Creek, Oceano Lagoon, Arroyo Grande Creek and Estuary, Oso Flaco Lake, Oso Flaco Creek, and numerous unnamed water bodies within the dune system that provide existing and potential SWPT habitat.
Objective 2.2:	Protect habitat by closing informal trails adjacent to occupied aquatic habitat.
Objective 2.3:	Park operations and management will be carried out in a manner that avoids and minimizes effects on SWPT habitat
Objective 2.4:	Provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of SWPT, the significance of the HCP area habitats for this species and its recovery, the importance of CDPR's protection and monitoring efforts, the impacts of predators on this species, and the importance of working together to conserve the species and its habitat.
Goal 3: Improve habitat quality by managing invasive predators and enhancing site conditions for all SWPT life stages.	
Objective 3.1:	Control invasive aquatic predators/competitors of SWPT.
Objective 3.2:	Enhance SWPT habitat by managing and restoring aquatic and upland site conditions.
Goal 4: Minimize upstream water quality and quantity effects on SWPT and suitable habitat within the HCP area by facilitating cooperative management efforts with willing landowners.	
Objective 4.1:	Conduct outreach to, and work with, willing landowners upstream of the HCP area, whose activities affect water quality and quantity in the HCP area, and the Regional Water Quality Control Board (RWQCB). Outreach and cooperative efforts with upstream land managers will seek to reduce impacts to water quality and quantity in target watersheds.
California Red-legged Frog	
Goal 1: Minimize the effects of park operations, park visitor activities, and management activities on suitable CRLF habitat.	
Objective 1.1:	When necessary, to limit substantial encroachment that could significantly degrade suitable CRLF habitat, close suitable habitat with symbolic fencing and signage, including Pismo Creek Lagoon, Pismo Lake, Meadow Creek, Carpenter Creek, Oceano Lagoon, Arroyo Grande Creek and Estuary, Oso Flaco Lake, Oso Flaco Creek, and numerous unnamed water bodies within the dune system that provide existing and potential CRLF habitat.
Objective 1.2:	Protect habitat by closing informal trails adjacent to occupied aquatic habitat.
Objective 1.3:	Provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of CRLF, the significance of the HCP area habitats for this species and its recovery, the importance of CDPR's protection and monitoring efforts, the impacts of predators on this species, and the importance of working together to conserve the species and its habitat.
Goal 2: Improve habitat quality by managing invasive predators and enhancing suitable habitat for all CRLF life stages.	

Table 2-5. HCP Goals and Objectives
Objective 2.1: Control invasive aquatic predators of CRLF.
Objective 2.2: Enhance CRLF habitat by restoring and managing aquatic and upland site conditions.
Goal 3: Minimize upstream water quality and quantity effects on CRLF and suitable habitat within the HCP area by facilitating cooperative management efforts with willing landowners.
Objective 3.1: Conduct outreach to, and work with, willing landowners upstream of the HCP area, whose activities affect water quality and quantity in the HCP area, and RWQCB. Outreach and cooperative efforts with upstream land managers will seek to reduce impacts to water quality and quantity in target watersheds.
Western Spadefoot
Goal 1: Expand understanding of WSF population status and trends within the HCP area.
*Objective 1.1***:** Identify and assess the status of WSF within known occupied and potential habitat.
Objective 1.2: Refine understanding of threats to WSF from covered activities and opportunities for habitat enhancement.
Goal 2: Minimize the effects of park operations, park visitor activities, and management activities on suitable WSF habitat.
Objective 2.1: When necessary to limit substantial encroachment that could significantly degrade suitable WSF habitat, close suitable habitat with symbolic fencing and signage, including Pismo Creek Lagoon, Pismo Lake, Meadow Creek, Carpenter Creek, Oceano Lagoon, Arroyo Grande Creek and Estuary, Oso Flaco Lake, Oso Flaco Creek, and numerous unnamed water bodies within the dune system that provide existing and potential WSF habitat.
Objective 2.2: Protect habitat by closing informal trails adjacent to occupied aquatic habitat.
Objective 2.3: Park operations and management will be carried out in a manner that avoids and minimizes effects on SWPT habitat.
Objective 2.4: As applicable, provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of WSF, the significance of the HCP area habitats for this species and its recovery, the importance of CDPR's protection and monitoring efforts, the impacts of predators on this species, and the importance of working together to conserve the species and its habitat.
Goal 3: Improve habitat quality by managing invasive predators and enhancing suitable habitat for all WSF life stages.
Objective 3.1: Control invasive aquatic predators of WSF.
Objective 3.2: Enhance WSF habitat by restoring and managing aquatic and upland site conditions.
Goal 4: Minimize upstream water quality and quantity effects on WSF and suitable habitat within the HCP area by facilitating cooperative management efforts with willing landowners.
Objective 4.1: Conduct outreach to, and work with, willing landowners upstream of the HCP area, whose activities affect water quality and quantity in the HCP area, and RWQCB. Outreach and cooperative efforts with upstream land managers will seek to reduce impacts to water quality and quantity in target watersheds.
Tidewater Goby
Goal 1: Minimize the effects of park operations, park visitor activities, and management activities on tidewater goby habitat.

Table 2-5. HCP Goals and Objectives	
Objective 1.1:	Protect tidewater goby habitat by closing informal trails in and adjacent to occupied and potential habitat.
Objective 1.2:	Protect tidewater goby habitat in Arroyo Grande Creek and Estuary by enforcing crossing guidelines.
Objective 1.3:	Protect tidewater goby habitat in Pismo Creek Lagoon by pursuing installation of proposed improvements to Pismo Creek.
Objective 1.4:	Provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of tidewater goby, the significance of the HCP area habitats for this species and its recovery, the importance of CDPR's protection and monitoring efforts, the impacts of predators on this species, and the importance of working together to conserve the species and its habitat.
Goal 2: Manage non-native plants and animals to protect all life stages of tidewater goby.	
Objective 2.1:	Control invasive aquatic predators of tidewater goby and other invasive species that reduce tidewater goby habitat quality.
Goal 3: Minimize the effects of upstream water quality and quantity disturbances on tidewater goby and suitable habitat within the HCP area by facilitating cooperative management efforts with willing landowners and water agencies.	
Objective 3.1:	Conduct outreach to, and work with, willing landowners upstream of the HCP area whose activities affect water quality and quantity in the HCP area, working in conjunction with local water agencies and the RWQCB.
Goal 4: Evaluate the suitability of potential tidewater goby habitat in the HCP area.	
Objective 4.1:	Cooperate with USFWS efforts to evaluate habitat conditions of other potential tidewater goby habitat within the HCP area.
Listed Plants	
Goal 1: Protect and enhance habitat for marsh sandwort, La Graciosa thistle, surf thistle, beach spectaclepod, Nipomo Mesa lupine, and Gambel's watercress within the HCP area to sustain or increase their populations.	
Objective 1.1:	Restore listed plant habitat.
Objective 1.2:	Protect listed plants from public encroachment.
Objective 1.3:	Close informal trails in and adjacent to listed plant species habitats and restore to original conditions.
Objective 1.4:	Provide effective outreach and education to CDPR staff, volunteers, concessionaires operating in the HCP area, and the public on the ecology of the listed plants, the significance of the HCP area habitats for these species and their recovery, the importance of CDPR's protection and monitoring efforts, the impacts of invasive plants on these species, and the importance of working together to conserve these species and their habitat.
Goal 2: Manage invasive plants to protect listed plant species habitat.	
Objective 2.1:	Control non-native invasive plant species given that invasions of non-native plants create a serious threat to ecosystem function, native biological diversity, and many listed plant species.

Table 2-5. HCP Goals and Objectives	
Goal 3: Minimize upstream water quality effects on marsh sandwort and Gambel's watercress and suitable habitat within the HCP area by facilitating cooperative management efforts with willing landowners.	
Objective 3.1:	Conduct outreach to, and work with, willing landowners upstream of the HCP area whose activities affect water quality and quantity in the HCP area. Outreach and cooperative efforts with upstream land managers will seek to reduce impacts to water quality and quantity in target watersheds.
Goal 4: Collaborate with external agencies and institutions to propagate and outplant listed plants to HCP area lands.	
Objective 4.1:	Coordinate with USFWS and other agencies and institutions to explore opportunities for propagation and outplanting of listed plants in the HCP area to enhance existing populations and to support new populations of listed plant species in currently unoccupied but suitable habitat.

2.4.3.2 HCP Measures to Avoid and Minimize Impacts

Section 10(a)(2)(A) of FESA requires that an HCP specify the measures that the permittee will undertake to avoid, minimize, and mitigate to the maximum extent practicable the impacts of the take. The HCP adheres to a hierarchical requirement to first implement avoidance and minimization measures (AMMs) and then, if necessary, implement mitigation measures. AMMs for each covered species are listed in HCP section 5.3.1. All AMMs are presented in Appendix B. Most of the AMMs are currently in effect as part of the ongoing conservation program implemented by CDPR. The HCP includes new AMMs for covered activities as briefly listed in Table 2-6. and fully presented in Appendix B. Proposed new AMMs with the potential for causing environmental impacts are incorporated in the description of the proposed project activities in 2.4.2.2.

The AMMs include educational efforts that foster public awareness of covered species and their protection by CDPR as well as provide training for park-related operations staff (concessions, emergency responders, etc.). Measures also enforce covered species protection regulations, such as the implementation and regulation of closed nesting areas and buffer zones and rules governing traffic, dog leash and waste, littering, and aerial/wind-driven activities. Furthermore, the AMMs specify ways to avoid disturbance during routine riparian maintenance, excavation for cultural resource management purposes, CDPR's use of UAS, prescribed fire activities, and potential future construction projects, such as Oso Flaco Lake boardwalk replacement.

AMMs include habitat protection, enhancement, and restoration measures. Protection measures include preventing/removing predators or invasive species, providing natural shelters, and restricting park visitor access in sensitive areas. Habitat management and restoration measures include managing both native and non-native vegetation, conducting botanical and wildlife surveys, monitoring habitat conditions, and use of pesticides.

Table 2-6. Proposed New AMMs for Existing and Proposed New Activities	
Covered Activity	**Avoidance and Minimization Measure**
General AMM	SWPT AMMs 3-6; CRLF AMMs 3-5; WSF AMMs 3-5.
Motorized Recreation (CA-1)	SNPL AMM 22.
Camping (CA-2)	WSF AMM 13.
Pedestrian Activities (CA-3)	WSF AMM 14.
Fishing (CA-5)	SWPT AMMs 14-15.
Aerial/Wind-Driven Activities (CA-9)	SNPL AMM 61; CLTE AMM 50.
Special Events (CA-11)	SNPL AMMs 66-67; CLTE AMM 55-56. SWPT AMM 19; WSF AMM 15.
Installation and Maintenance of SNPL and CLTE Protection Fences (CA-12a)	WSF AMM 16.
Tidewater goby and salmonid surveys (CA-13)	SWPT AMMs 20-24; WSF AMMs 17-22; Tidewater Goby AMM 29.
Herpetological monitoring and management (CA-14)	SWPT AMMs 20-21; WSF AMMs 25-26.
Listed plant management activities (CA-15)	SWPT AMMs 29-30; WSF AMMs 28-29.
Invasive Plant and Animal Control (CA-17)	SWPT AMM 31; WSF AMM 30.
Campground Maintenance (CA-20)	SWPT AMMs 32-33; WSF AMMs 31-32.
General Facilities Maintenance (CA-21)	SNPL AMMs 106-111; CLTE AMM 92-96
Routine Riparian Maintenance (CA-26)	SWPT AMMs 34-37; WSF AMMs 34-35; CRLF AMM 39.
Motorized vehicle crossing of Creek (CA-40)	SWPT AMM 45; WSF AMM 43.
Use of Pesticides (CA-51)	SWPT AMM 55; WSF AMM 55; Tidewater Goby AMM 55.
CDPR UAS Use for Park Activities (CA-52)	SNPL AMMs 127-147; CLTE AMMs 113-130.

2.4.3.3 HCP Unavoidable FESA Impacts

As described in HCP section 5.3.2.1, the conservation program relies on the following three tiers, which largely address the risks to covered species from covered activities and allow CDPR to contribute to covered species recoveries locally and range-wide:

- Managing species and habitats in perpetuity consistent with the requirements of the California Public Resource Code (e.g., PRC §§5001.2 and 5090.01 *et seq.*).
- Collecting up-to-date information on covered species status and distribution to help identify and manage threats.
- Implementing measures to eliminate or greatly reduce known threats to covered species and support recovery.

Even with this multi-faceted conservation program, incidental take of covered species may still occur. In accordance with the USFWS Compensatory Mitigation Policy (USFWS 2023c), the HCP includes additional measures to offset impacts to covered species remaining even after implementation of all other conservation program components, including AMMs. These offsets have been incorporated into the HCP's covered activities and are thus part of the project described in this EIR. They are described here briefly, with a reference to the relevant covered activities where they are described in greater detail above.

Western Snowy Plover and California Least Tern. CDPR has determined that the existing SNPL and CLTE management program adequately meets the compensatory mitigation requirement through the well-documented measures that protect nests, chicks, juveniles, and adults through intensive monitoring, management, and control of predators. CDPR has not proposed additional new offset measures for SNPL and CLTE.

Southwestern Pond Turtle. For SWPT, CDPR proposes to restore at least 0.75 acres of dune slack wetland associated with either Surprise Lake and/or Jack Lake to support a host of rare aquatic species and is committing to conducting predator management with a goal of zero density of invasive exotic predators at the restored wetland habitat during the term of the HCP. This restoration is an additional action that has been added to CA-16 and is described in section 2.4.2.2. In addition to predator removal at the restored wetland, CDPR proposes to implement focused removal of non-native bullfrogs in key areas where SWPT and bullfrogs occupy the same habitats. This additional focused predator control is an additional action that has been added to CA-17 and is described in section 2.4.2.2. The new restoration in CA-16 and focused predator control in CA-17, combined with ongoing native plant species enhancement (CA-15), dune habitat restoration (CA-16), invasive plant control (CA-17), and riparian invasive and overgrown emergent plant control (CA-26) comprise the HCP's offsets for impacts to SWPT.

California Red-Legged Frog and Western Spadefoot. For CRLF and WSF, CDPR proposes to restore at least 0.75 acres of dune slack wetland associated with Surprise Lake and/or Jack Lake to support a host of rare aquatic species and is committing to conducting predator management with a goal of zero density of invasive exotic predators at the restored wetland habitat during the term of the HCP. This restoration is an additional action that has been added to CA-16 and is described in section 2.4.2.2. The new restoration in CA-16, including predator control at the site, combined with ongoing native plant species enhancement (CA-15), dune habitat restoration (CA-16), invasive plant control (CA-17), and riparian invasive and overgrown plant control (CA-26) comprise the HCP's offsets for impacts to CRLF and WSF.

Tidewater Goby. For tidewater goby, CDPR proposes to implement focused removal of non-native predators (or other non-native species that are in direct competition for habitats) in key habitats that are critical for the ongoing survival and expansion of the species. This additional focused predator control is an additional action that has been added to CA-17 and is described in section 2.4.2.2 CDPR also proposes the salvage of stranded tidewater goby as an additional action added to CA-13 as described in section 2.4.2.2. The combination of predator controls in key habitats (CA-17) and salvage of stranded tide water goby comprise the HCP's offsets for impacts to tidewater goby.

2.4.3.4 Monitoring and Enforcement

The HCP includes three types of monitoring: (1) compliance monitoring, which tracks the permit holder's compliance with the requirements specified in the HCP and ITP; (2) effects monitoring, which tracks the impacts of the covered activities on the covered species; and (3) effectiveness

monitoring, which tracks the progress of the conservation program in meeting the HCP's biological goals and objectives (includes species surveys, reproductive success, etc.). The monitoring program described in HCP section 5.4 provides data serving all three types of monitoring, as applicable.

The provisions of the HCP are enforceable through the terms and conditions of the ITP issued by the USFWS (HCP section 6.7).

2.4.3.5 Adaptive Management

The HCP uses an adaptive management strategy to address the uncertainty in the conservation of a covered species. Adaptive management is an iterative decision-making process used to examine the effectiveness of the conservation program (e.g., AMMs and monitoring) for meeting the HCP's biological goals and objectives and, if necessary, adjusting management actions based on what is learned. CDPR would monitor the outcomes of management through the performance standards and success criteria and use the collected information and data to assess the effectiveness of the conservation program in meeting the HCP's biological goals and objectives. Management actions would be adjusted based on the relative success of the management actions in meeting the biological goals and objectives.

Based on ongoing adaptive management and monitoring of the covered species and scientific information currently available, CDPR expects that the management actions contained in the HCP represent the best management practices at this time. The adaptive management strategy recognizes uncertainty in the responses of species to natural systems, and new or different management techniques not identified in the HCP may become available that may be more effective in achieving the biological goals and objectives of the HCP. Use of adaptive management is proposed to provide management flexibility to best afford protection for the covered species. Adaptive Management is described in HCP section 5.5.

2.4.3.6 HCP Implementation

CDPR is the Permittee. The HCP would be implemented out of the Oceano Dunes District, with the District Superintendent having implementation responsibility supported by District and other CDPR staff. HCP implementation is described in detail in HCP chapter 6.

2.5 REQUIRED PERMITS AND APPROVALS

2.5.1 Oceano Dunes Habitat Conservation Plan

The following approvals are required for the proposed HCP:

- USFWS, Ventura Fish and Wildlife Office: Issuance of an ITP to California State Parks, Oceano Dunes District for six endangered or threatened wildlife species: SNPL, CLTE, SWPT, CRLF, WSF, and tidewater goby. The ITP would need to be amended to add the two wildlife species currently proposed for listing as threatened, SWPT and WSF, if either species is listed.
- CDPR, Oceano Dunes District: Approval of the Oceano Dunes District HCP; certification of the EIR pursuant to CEQA

CDFW is not a permitting agency for the federal ITP supported by this HCP. It is anticipated, however, that CDFW will consult this HCP as part of its review of supporting documents in consideration of issuing an ITP pursuant to California Fish and Game Code section 2835

(NCCP) as described below in EIR section 2.5.2. CDPR may also seek coverage for take of state-listed plants via Fish and Game Code section 2081 (b).

2.5.2 Natural Community Conservation Plan

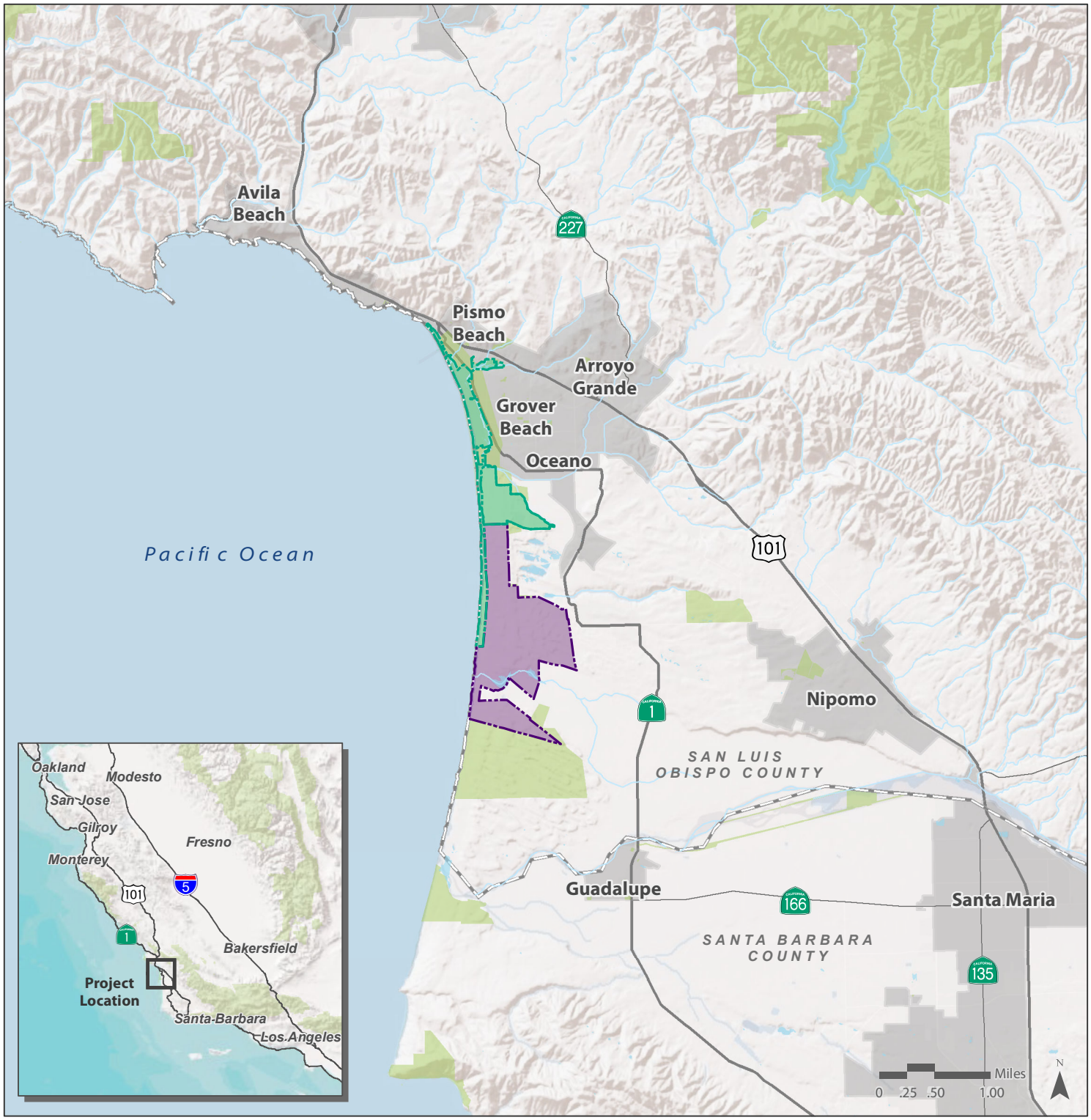
In a related but separate action, CDPR anticipates preparing an application to CDFW for approval of a NCCP and issuance of an ITP for take of CLTE, which is a state-listed endangered species and a state fully protected species under California Fish and Game Code. The NCCP is in an early stage of development and will be subject to separate CEQA review.

2.5.3 New Proposed and Future HCP Covered Activities

Subsequent approvals may be required for the new covered activities proposed by CDPR and considered in this EIR, which include SNPL chick and egg capture for captive rearing (CA-12b); stranded tidewater goby salvage (CA-13); SWPT and WSF monitoring (CA-14); dune slack restoration (CA-16); invasive aquatic species predator control (CA-17); mechanical trash removal (CA-21); reduction of the Boneyard Exclosure and 6 Exclosure boundaries (CA-50); and CDPR's use of UAS (CA-52). CDPR would consult with responsible agencies when required for permitting of proposed activities.

Potential future activities covered by the HCP may require subsequent review or approvals from the following agencies at the time the activities are proposed.

- CDPR: Environmental review and approval pursuant to CEQA
- USACE: Nationwide Permit or Individual Permit under the Clean Water Act (CWA), section 404
- RWQCB: Water Quality Certification under CWA section 401
- CDFW: Streambed Alteration Agreement under Fish and Game Code section 1600 *et seq.*
- Coastal Commission: CDP
- San Luis Obispo County: CDP under the County Local Coastal Program (LCP)
- City of Pismo Beach: CDP under the Pismo Beach LCP
- City of Grover Beach: CDP under the Grover Beach LCP
- State Lands Commission: for projects that extend into state waters
- SLOAPCD: compliance review with Abatement Order and future Dust Control Activities



HCP Area

- Oceano Dunes SVRA
- Pismo State Beach

Base Map Features

- Public park land
- Urban area
- County boundary
- Waterbody
- Stream
- Highway
- Major road

MIG

May 2026
Source: CDPR 2024; SLO Co Open GIS 2024; MIG 2024

Figure 2-1 Regional Location

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

HCP Area Boundaries

- Oceano Dunes SVRA
- Pismo State Beach

Base Map Features

- Marker post
- Waterbody
- Stream
- Highway
- Access road

MIG

May 2026
Source: CDPR 2024; MIG 2024

Figure 2-2 HCP Area Overview

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Land Use & Facilities

- Campground
- Pismo State Beach Golf Course
- Corporation yard
- Street legal vehicles only
- Open to riding and camping
- Closed to motorized vehicles
- Closed to all public use
- Trail
- Oso Flaco boardwalk
- Parking
- Restrooms
- Boneyard gate
- Air quality monitor
- OHV landmark
- Monarch butterfly grove
- Sand Highway*
- La Grande parcels
- Chevron inholdings

*Approximate location

Base Map Features

- Marker post
- HCP covered lands
- Boundary of Exclosures (includes shoreline)
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR 2024; MIG 2024

Figure 2-3 HCP Area Land Use and Facilities

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Land Use & Facilities

- Campground
- Pismo State Beach Golf Course
- Corporation yard
- Street legal vehicles only
- Closed to motorized vehicles
- Trail
- Unofficial trail*
- Wind fencing
- Parking
- Monarch butterfly grove
- Pismo Lake spillway

Base Map Features

- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

*Approximate location

May 2026
Source: CDPR 2024; MIG 2024

Figure 2-4 HCP Area Land Use and Facilities Detail

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Photograph 1: Park entrance at Grand Avenue

Photograph 2: Park entrance at Pier Avenue

Photograph 3: Back dunes of open riding area near Sand Highway looking north

Photograph 4: Vegetated sand dunes in southern portion of open riding area

Photograph 5: Recreational uses at Pismo State Beach and Oceano Dunes SVRA

Figure 2-5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Photograph 6: Safety and Education Center kiosk

Photograph 7-6: Exclosure shoreline and west fence looking south

Figure 2-5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Photograph 8: East Boneyard Exclosure looking south

Photograph 9: Seasonal exclosure signage

Photograph 10: Seasonal exclosure bumpout

Photograph 11: Southeast corner of the 48-acre foredune facing northwest with CXT-G in view.

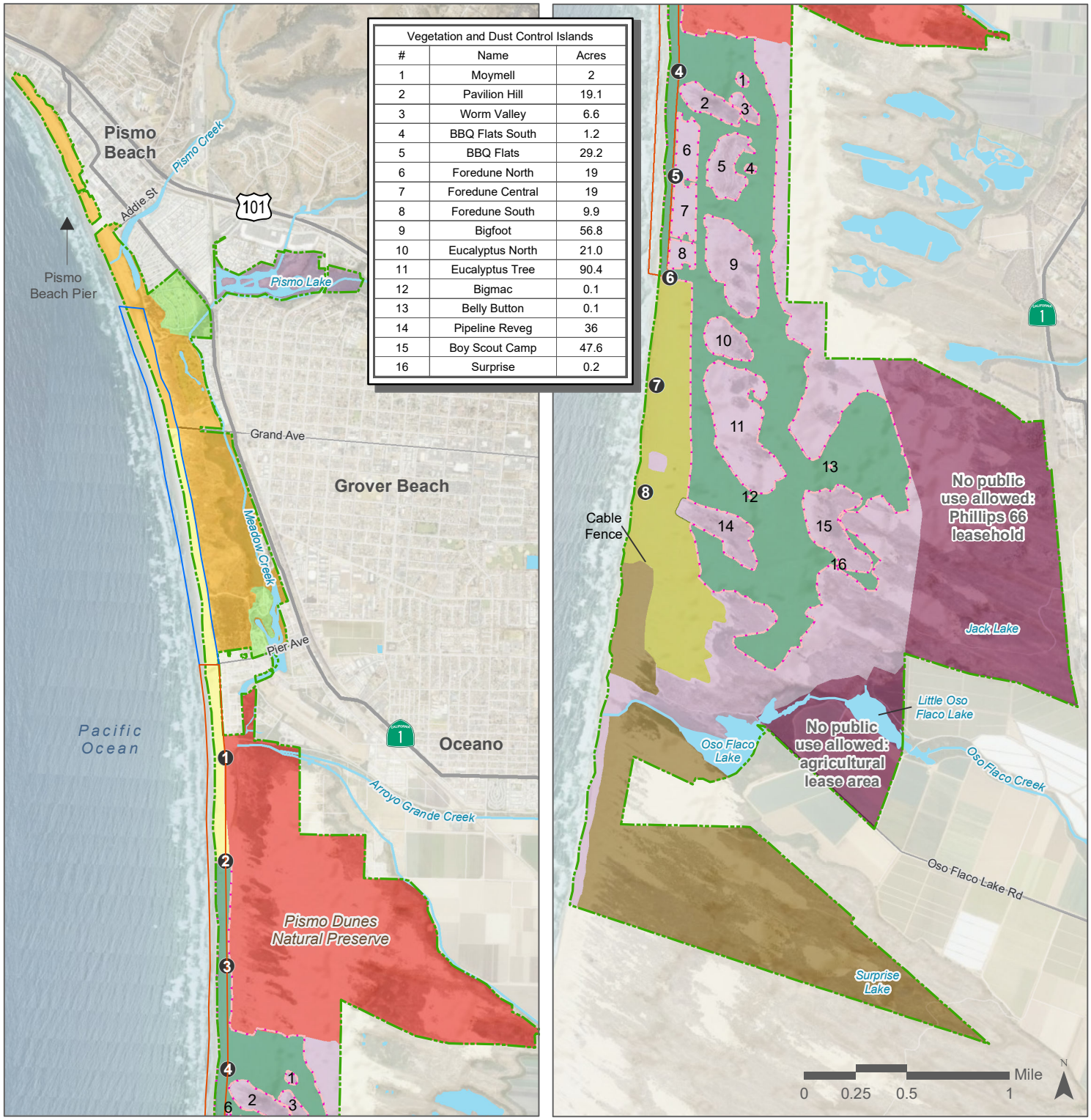
Photograph 12: 8 Exclosure facing west showing well-developed dune hummocks.

Figure 2-5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Photograph 13: Oso Flaco Lake Boardwalk

Photograph 14: Oso Flaco Boardwalk kiosk and dune access



Vegetation and Dust Control Islands		
#	Name	Acres
1	Moymell	2
2	Pavilion Hill	19.1
3	Worm Valley	6.6
4	BBQ Flats South	1.2
5	BBQ Flats	29.2
6	Foredune North	19
7	Foredune Central	19
8	Foredune South	9.9
9	Bigfoot	56.8
10	Eucalyptus North	21.0
11	Eucalyptus Tree	90.4
12	Bigmac	0.1
13	Belly Button	0.1
14	Pipeline Reveg	36
15	Boy Scout Camp	47.6
16	Surprise	0.2

Recreational Restrictions

- No public use allowed
- Horses allowed - closed to dogs, vehicles, and camping
- Dogs and horses allowed - closed to vehicles and camping
- Dogs, horses, and street-legal vehicles allowed, closed to OHV riding and camping
- Developed campground, dogs allowed
- Open to OHV riding, camping, dogs, and horses
- Pedestrians only - no vehicles, dogs, horses, or camping
- Seasonally open to dogs, horses, camping, and OHV riding from Oct 1-Feb 29
- Seasonally open to pedestrians only from Oct 1-Feb 29
- Year-round open riding

Kiteboarding landing/launching

- Wet/dry allowed
- Wet only

Base Map Features

- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

MIG

May 2026
Source: CDPR 2024; MIG 2024

Figure 2-6 Recreational Restrictions

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

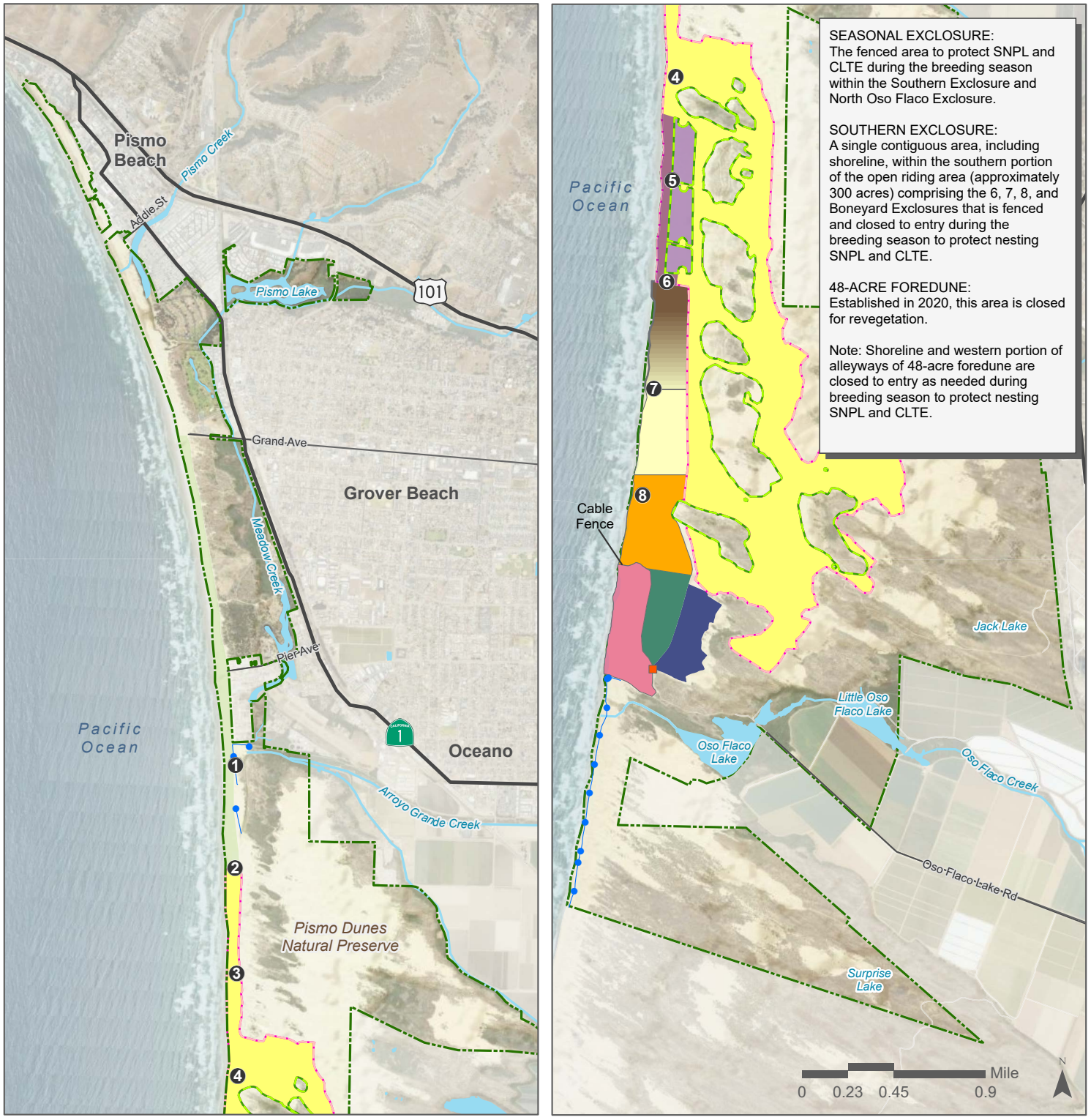
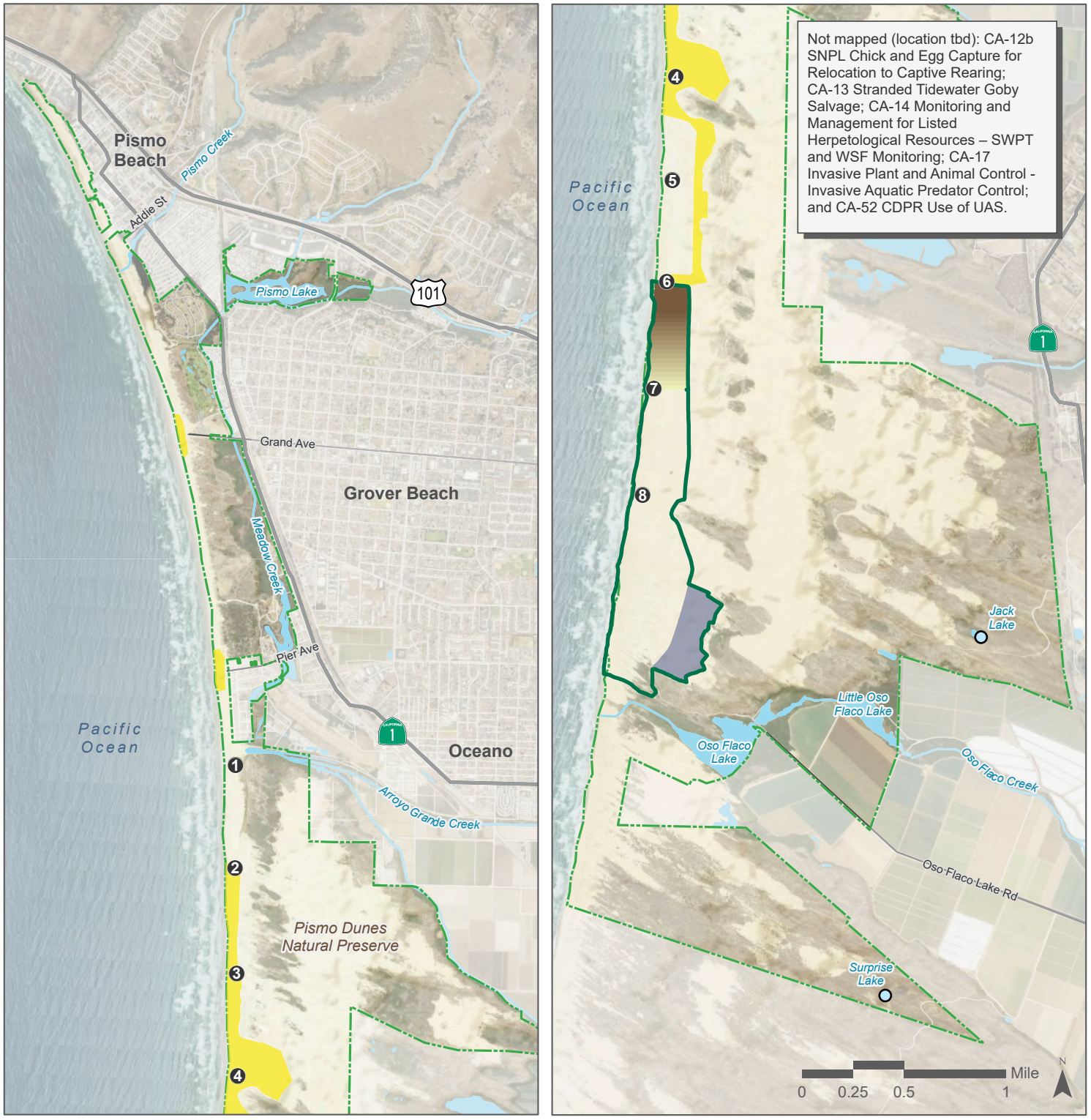


Figure 2-7 Western Snowy Plover and California Least Tern Management

CDPR, Oceano Dunes District Habitat Conservation Plan EIR



Proposed New Covered Activities

- CA-16 Dune slack wetland restoration (potential site)*
- CA-21 Mechanical trash removal*
- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*

*Approximate location

Base Map Features

- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR 2024; MIG 2024

Figure 2-8 CDPR Proposed New Activities

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

CHAPTER 3. IMPACT ANALYSIS METHODOLOGY

3.1 ANALYTICAL METHODOLOGY

In evaluating the proposed HCP's potential impacts, CDPR employed the following analytical methodology:

Step 1: Incorporation of Avoidance and Minimization Measures (AMMs), CDPR Standard Project Requirements (SPRs), and Standard Practices. The EIR incorporates AMMs identified in the HCP as project components that are designed to minimize impacts to the existing environmental setting. Additionally, CDPR implements SPRs and standard practices where relevant to specific activities being undertaken in order to avoid or minimize potential adverse impacts. The AMMs and SPRs are listed in EIR Appendix B. Standard practices are listed in the regulatory setting of the chapter where applicable. The application of AMMs, SPRs, and standard practices is presumed, and therefore they are not considered mitigation measures but rather resource protection measures that are part of the HCP and proposed project. Thus, the application of these measures is considered prior to making a finding of significance for project impacts.

Step 2: Compliance with Applicable Laws, Ordinances, Statutes, and Regulations. The EIR presumes, unless specifically noted, that actions covered by the HCP would be designed, constructed, operated, and maintained in accordance with the applicable requirements described in the regulatory setting discussion. The regulatory setting is not intended to be exhaustive; rather, it is intended to provide a summary of key regulatory requirements that materially affect the relationship between the project's design, construction, operation, and maintenance and potential environmental impacts. In addition, the regulatory setting does not summarize regulations that do not apply to the proposed project's components and activities.

Step 3: Identification of Existing Physical Conditions. The EIR identifies the existing physical environmental conditions that exist in the HCP area that could change as a result of the HCP activities and components. The environmental setting generally reflects the physical environmental conditions of the HCP area as they currently exist. Existing park operations are part of the environmental setting, including visitor use, visitor services, park operations and maintenance, and natural resource management. Any environmental effects that may be associated with current park operations are part of the environmental setting. This setting constitutes the baseline physical conditions by which CDPR is determining whether the physical change that occurs to the environment as a result of the proposed project is significant. In accordance with CEQA Guidelines section 15125(a), the environmental setting describes only those physical environmental conditions necessary to understand the significant effects of the proposed project and its alternatives.

Step 4: Identification of EIR Scope and Treatment of Future Activity. The EIR impact analysis is limited in scope to the environmental assessment of new activities proposed by CDPR under the HCP (Table 2-4) that would result in a physical change to the environment. Existing park operations are part of the existing physical setting of the project site and are baseline conditions for evaluating the proposed project and do not need to be authorized. Therefore, existing park operations are not evaluated for impacts as new activities. The HCP identifies both immediate new actions and potential future actions that would modify park operations and cause a physical change to the environment. The impacts associated with future activities are assessed in the cumulative impacts to the degree that detail is known. HCP approval and issuance of a

federal permit for biological impacts does not constitute approval or commitment by subsequent permitting agencies to approve future activities. The purpose of the EIR is to address the environmental effects of approving the HCP, which supports a federal permit for incidental take of federal protected species. Therefore, the scope of the EIR is limited in its assessment of future activities and does not include a project-level assessment of future activities contemplated by CDPR in the HCP. Because they are well defined and may be implemented upon ITP issuance, the EIR does fully address all potential impacts of the new proposed activities described in EIR section 2.4.2.2 and summarized in Table 2-4.

The EIR is limited in scope to the new activities proposed by CDPR in the HCP. The purpose of the HCP is to protect, conserve, and restore the natural resources at Pismo State Beach and Oceano Dunes SVRA while allowing CDPR to continue to operate the park units for public use and enjoyment (HCP section 1.1.1). As described in EIR section 1.3, it is not the role or intent of the HCP to review or modify the parameters of existing park operations.

Step 5: Collection and Use of Scientific Data. The EIR analysis is based on the best available science and field survey data. CDPR annually collects data on park resources and performs individual specialized studies, assisted by qualified professionals both in the public and private sector. CDPR has engaged with resource agencies (e.g., USFWS, CDFW, Coastal Commission, and SLOAPCD) and utilized scientific advisors comprised of agency representatives and environmental scientists during the course of the HCP preparation. The data has been used for the environmental review contained in this EIR.

Step 6: Analysis of Project Impacts. The EIR evaluates the significance of the HCP's potential impacts (the change to the physical environmental conditions that could result from implementation of the HCP) on the full range of resources identified in Appendix G to the CEQA guidelines. Pursuant to CEQA Guidelines section 15126, this EIR analyzes the potential environmental impacts stemming from all phases of the proposed project. This examination is based on the incremental change to the existing physical conditions that would result from the implementation of the proposed project and considers the public comments submitted by agencies and interested individuals during the 30-day public review period for the 2018 NOP. The EIR's impact analyses consider the direct and indirect impacts of the proposed HCP, as well as the short-term and long-term impacts of the project, and enable CDPR to determine if the proposed project would have a beneficial impact, no impact, a less-than-significant impact, a potentially significant impact, or a significant and unavoidable impact to the environment.

Step 7: Inclusion of Mitigation Measures. The EIR describes the feasible mitigation measures proposed to avoid or minimize the HCP's significant impacts. Project mitigation measures are in addition to the standard and specific resource protection measures incorporated into the HCP, and generally require CDPR to avoid, prevent, or minimize impacts to resources, or – if impacts do occur – to rehabilitate, restore, or compensate for the impact in a manner that is proportional to the project impact.

3.2 PROJECT IMPACTS FOUND NOT TO BE SIGNIFICANT

CDPR has determined, using the Environmental Checklist Form contained in CEQA Guidelines Appendix G as a guide, that implementation of the proposed project would clearly result in no impact or a less-than-significant impact to the following resources due to absence of the resource or the nature of the project as proposed; impacts to these resources were therefore dismissed from further detailed analysis. A discussion of these resource impacts is presented in Chapter 10.

- Aesthetics
- Agriculture and Forestry Resources
- Geology and Soils
- Greenhouse Gas Emissions and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Transportation
- Utilities and Service Systems
- Wildfire

In addition, where applicable, Chapters 4–8 identify impacts that would not occur or would be clearly less than significant and dismissed from further evaluation. These impacts are identified under the "Thresholds of Significance" subheading of each impact analysis chapter.

3.3 CUMULATIVE IMPACTS

3.3.1 Introduction

CEQA Guidelines section 15130 requires that an EIR evaluate a project's cumulative impacts to determine if the project's incremental effect is cumulatively considerable. As defined in section 15355, 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. The cumulative impact from several projects is the change in the environment that 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" (14 CCR § 15355).

As set forth in the CEQA Guidelines, 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 (14 CCR § 15130(b)). As stated in CEQA, "a project may have a significant effect on the environment if the possible effects of a project are individually limited but cumulatively considerable" (PRC § 21083(b)). An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR (14 CCR § 15130(a)(1)). The 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 (14 CCR § 15064(h)(4)). The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects that do not contribute to the cumulative impact (14 CCR § 15130(b)).

3.3.2 Geographic Scope

The geographic area that could be affected by the Oceano Dunes HCP and its proposed new activities varies depending upon the environmental resource being evaluated. The geographic scope of each resource is identified in the environmental and regulatory setting of each EIR chapter. Some resources, such as air quality, land use planning, and recreation, have a regional geographic scope. Other resources, such as cultural resources, have a localized geographic scope. Biological resources have both site-specific and regional geographic scopes, dependent upon the individual resource being evaluated.

3.3.3 Cumulative Project List

CEQA Guidelines (§ 15130(b)(1)(A)) allow for the use of a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency for the cumulative impact analysis. The cumulative analysis includes projects that would result in similar impacts as the proposed project due to their potential to contribute collectively to significant cumulative impacts. Sources of information on past, present, and probable future projects include OHMVR Division staff and the websites for the planning or community development departments of San Luis Obispo County, the City of Pismo Beach, the City of Grover Beach, and the Oceano Community Services District. The projects considered for the cumulative impact analysis are identified in Table 3-1. The HCP covered activities with specific known locations that may be proposed in the future are shown in Figure 3-1 Potential Future HCP Covered Activities. Other CDPR projects and local agency projects considered for cumulative impacts are listed in Table 3-1 and shown in Figure 3-2 Cumulative Projects.

As described in HCP section 2.2.7, CDPR prepared a draft PWP (AECOM 2020a) which is a long-range land use management plan for compliance with the California Coastal Act and PRC. The draft PWP included tentative park improvement projects and was initially reviewed by the Coastal Commission. The PWP process is presently on hold and CDPR has no current plans to move the draft PWP forward. Given the stalled process, several of the PWP projects are no longer reasonably foreseeable and are not considered in the cumulative impact discussion. Facility improvements being pursued or having the potential to occur in the future are listed below in Table 3-1. An “X” in Table 3-1 denotes which impacts from these projects could combine with the proposed HCP to create a cumulative impact. These cumulative impacts are addressed in the individual environmental resource chapters. Project impacts found to be absent as identified in EIR section 10.3 have no potential for cumulative impacts and are not considered in the cumulative analysis.

Table 3-1. List of Concurrent and Future Projects and their Potential for Cumulative Impacts with Proposed New Activities

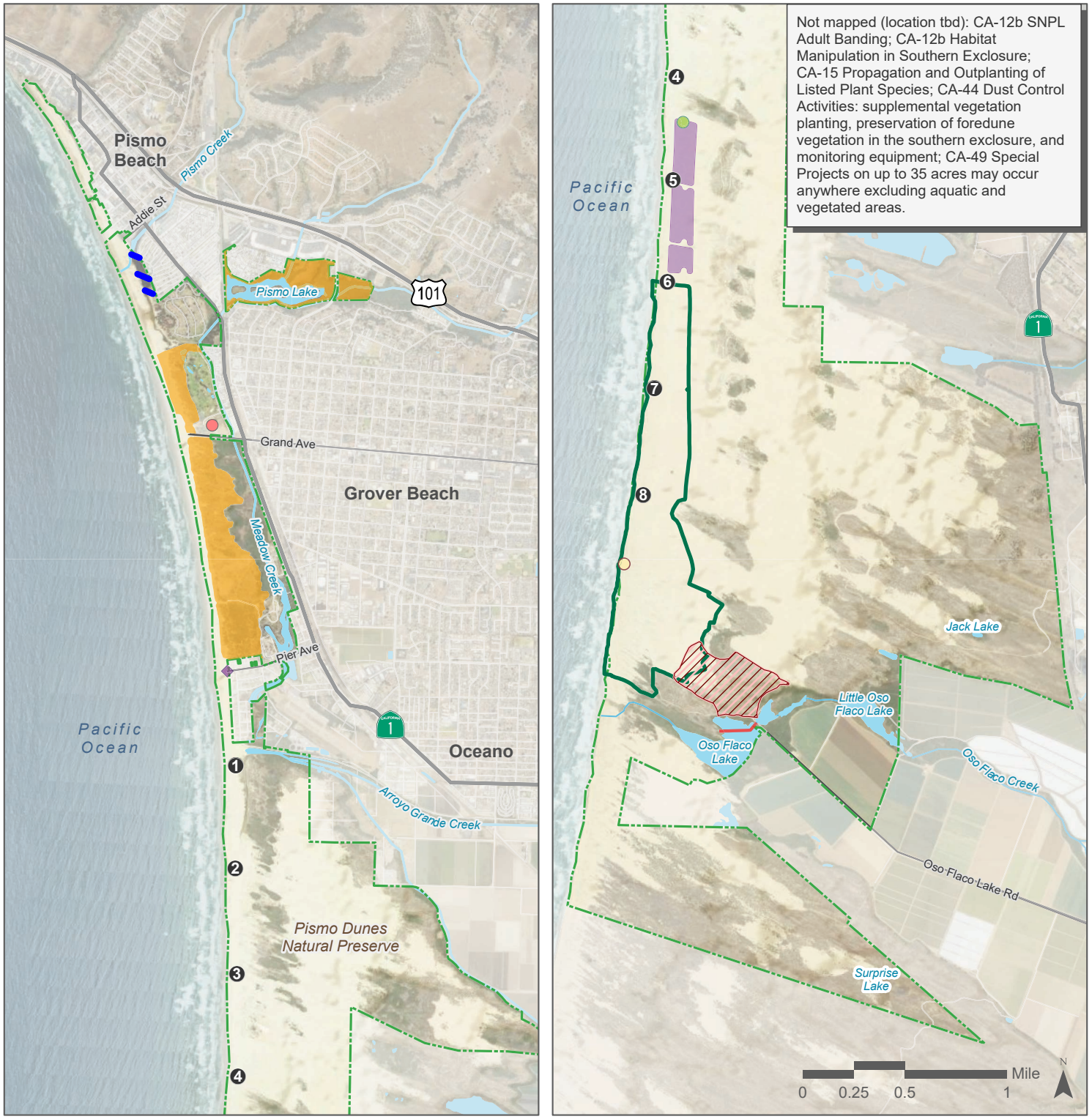
Project Type	Location	Project Impact					Status
		Land Use	Air Quality	Biology	Cultural / Tribal	Recre-ation	
Oceano Dunes District HCP Covered Activities							
CA-12b SNPL Adult Banding	Oceano Dunes SVRA			X			Potential Future
CA-12b Habitat Manipulation in Southern Exclosure	Oceano Dunes SVRA			X			Potential Future
CA-15 Listed Plant Management – Propagation and Outplanting	Pismo State Beach and Oceano Dunes SVRA			X			Potential Future
CA-16 Habitat Restoration Program - CalVTP	Pismo State Beach and Oceano Dunes SVRA			X			Potential Future
CA-28 Cable Fence Maintenance - Replacement	Oceano Dunes SVRA			X			Potential Future
CA-38 Grover Beach Lodge and Conference Center (150-unit lodge and conference center)	Pismo State Beach. West end of Grand Ave. in Grover Beach	X	X	X		X	Approved in 2012 but not built
CA-41 Pismo Creek Estuary Seasonal (Floating) Bridge	Pismo State Beach. Near Pismo Coast Village RV Park in Pismo Beach			X		X	Potential Future
CA-42 Limited Trail Riding (OHV trail)	Oceano Dunes SVRA. East of Boneyard near Oso Flaco Lake		X	X	X	X	Tentative. CDPR exploring options
CA-43 Replacement of the Safety and Education Center	Oceano Dunes SVRA. Near Post 4			X	X	X	Potential Future
CA-44: Dust Control Activities – supplemental planting in 48-acre foredune; new backdune planting areas; Pier Avenue track-out control; preservation of foredune vegetation in Southern Exclosure	Oceano Dunes SVRA. Backdune areas		X	X		X	Approved in 2025 ARWP ~~pending SLOAPCD approval~~

Table 3-1. List of Concurrent and Future Projects and their Potential for Cumulative Impacts with Proposed New Activities

Project Type	Location	Project Impact					Status
		Land Use	Air Quality	Biology	Cultural / Tribal	Recre-ation	
CA-48 Oso Flaco Lake Boardwalk Replacement	Oceano Dunes SVRA. Oso Flaco Lake			X	X	X	Potential Future
CA-49 Special Projects			X	X	X	X	Potential Future
Other CDPR Projects							
Park Corporation Yard Improvements (trailer pads, charging station, and circulation)	Pismo State Beach Corporation Yard Highway 1 near Grover Beach	X	X	X	X	X	Active Planning
Oceano Campground Water and Electrical Service Improvements	Pismo State Beach. Pier Avenue near Grover Beach	X	X	X	X	X	Potential Future
Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers	Pismo State Beach. Pier and Grand avenues near Grover Beach	X	X	X		X	Grand Avenue projects Active Planning; Pier Avenue projects Potential Future
New North Beach Entrance Station	Pismo State Beach. In Pismo Beach	X	X	X	X	X	Potential Future
Le Sage Drive Bridge Replacement	Pismo State Beach. Le Sage Drive over Meadow Creek			X		X	Active Planning
Local Agencies							
Dana Reserve Specific Plan. Mixed-use development on 288 acres	Nipomo community near Willow Road		X	X	X	X	Approved in 2024
Phillips 66 Santa Maria Refinery Demolition and Remediation. Removal of 15,000 cubic yards of soil and debris mounds.	Willow Road near Arroyo Grande		X	X	X		Approved in 2024
Monarch Dunes Specific Plan Amendment. Mixed-use development on 957 acres	Nipomo Mesa, two miles west of Nipomo community		X	X	X	X	Approved in 1998; amended 2023

Table 3-1. List of Concurrent and Future Projects and their Potential for Cumulative Impacts with Proposed New Activities

Project Type	Location	Project Impact					Status
		Land Use	Air Quality	Biology	Cultural / Tribal	Recre-ation	
Interim Sandbar Management Plan	Arroyo Grande Creek			X			Approved in 2013
Arroyo Grande Creek Channel Waterway Management Plan (WMP; sediment and vegetation removal)	Arroyo Grande Creek			X			Approved in 2010



Potential Future Covered Activities

- CA-16 Habitat restoration program – CalVTP
- CA-28 Cable fence replacement
- CA-38 Grover Beach Lodge
- CA-41 Pismo Creek Estuary bridge options
- CA-42 Limited Trail Riding
- CA-43 Safety & Education Center replacement
- CA-44 Dust Control Activity, Track-out device
- CA-44 Dust Control Activity, Foredune maintenance
- CA-48 Oso Flaco Lake boardwalk replacement

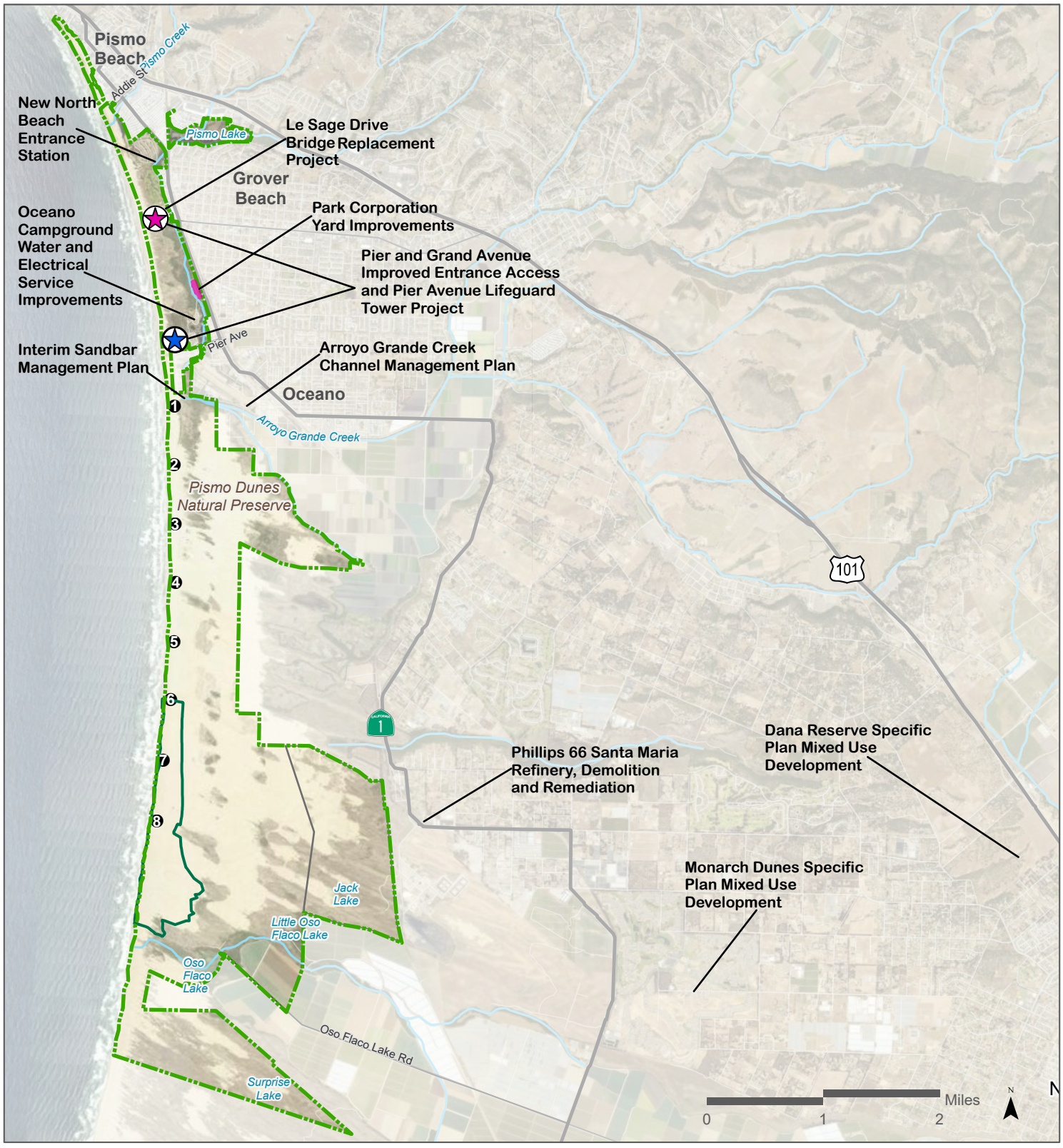
Base Map Features

- Marker post
- HCP covered lands
- Boundary of Exclosures (includes shoreline)
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR 2024; MIG 2024

Figure 3-1 Potential Future Covered Activities

CDPR, Oceano Dunes District Habitat Conservation Plan EIR



Legend

- Grand Avenue
- Pier Avenue
- Corporation yard

Basemap Features

- Marker post (1-8)
- HCP Covered Lands
- Boundary of Exclosures (includes shoreline)
- Waterbody
- Streams
- Highways
- Access road

MIG

May 2026
Source: CDPR 2020; MIG 2020

Figure 3-2 Cumulative Projects

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

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CHAPTER 4. LAND USE PLANS AND POLICIES

4.1 REGULATORY SETTING

The proposed new activities would be conducted on state-owned and state-operated land that, with the exception of coastal development permitting typically conducted through local agencies, is not subject to local land use restrictions and zoning regulations. Thus, this chapter does not incorporate San Luis Obispo County, City of Grover Beach, or City of Pismo Beach plans and policies that may apply to contemplated future projects identified in the HCP, as those activities would be reviewed for CEQA and permitting purposes when they are proposed by CDPR (see section 2.4.2.3 and Chapter 3).

4.1.1 California State Parks – Pismo State Beach and Pismo Dunes SVRA General Development Plan and Resource Management Plan

The Pismo State Beach and Pismo Dunes SVRA General Development Plan and Resource Management Plan was approved in April 1975 (CDPR 1975). The purpose of the plan was to address the then-overcrowded conditions at the park units and provide a guidance document to direct growth and management of park resources into the future. The General Development Plan and Resource Management Plan makes recommendations regarding controlled vehicle access, reduction in vehicle traffic on the beach, and continuity in its administration of recreational lands and expansion of park lands through acquisition of private and public lands.

The General Development Plan has been amended twice. In 1982 it was amended to allow for the Grover Beach Lodge at Grand Avenue (CDPR 1982a), which has not yet been built. It was amended again in 1994 (CDPR 1994) to reflect the results of the Pismo Dunes SVRA Access Corridor Project, which concluded that the Grand and Pier Avenue entrances were the Environmentally Preferred alternative for access, together with the staging area that remains in use today (CDPR 2004). Pismo Dunes SVRA is now called Oceano Dunes SVRA.

4.1.2 Classifications

Pismo State Beach and Oceano Dunes SVRA fall under three different park classifications: State Beach (PRC § 5019.56(c)), Natural Preserve (PRC § 5019.17), and SVRA (PRC § 5090.43). The PRC describes these classifications and prescribes management and operations guidelines specific to each classification (HCP section 1.5.8).

Pismo State Beach. Pismo State Beach was established in 1934 and expanded through acquisitions. It presently comprises 1,515 acres. This beach extends southward from the City of Pismo Beach for approximately 7.5 miles. The park unit encompasses beach, creeks and lagoons, natural dunes, campgrounds, and a golf course (Figure 2-4). The Resource Management Plan sets forth the following declarations for Pismo State Beach:

> **Declaration of Purpose:** The purpose of Pismo State Beach is to make available to the people an outstanding coastal area of beach and sand dunes located in and southward from the City of Pismo Beach in San Luis Obispo County. Specific recreational activities to be perpetuated and provided for include the aesthetic enjoyment of dunes and shore; beach vehicular travel, when consistent with the perpetuation of the natural values; camping, both in established inland facilities

and on the beach in appropriate zones; fishing and clamming under appropriate applicable regulations; and walking or riding horseback in the sand dune areas.

Declaration of Management Policy: Pismo State Beach will be managed by CDPR to perpetuate and enhance the recreational opportunities afforded by this outstanding coastline, together with the scenic and natural features upon which such recreational opportunities depend; to regulate the various uses in the interest of the safety and enjoyment of visitors; and to coordinate the various activities and uses in such a way that the resources of the area are protected and perpetuated to ensure their continuous availability to the people. All activities within Pismo State Beach shall be carried out under the guidelines established by the Resource Management Directives of CDPR.

Pismo Dunes Natural Preserve (Dunes Preserve). The Pismo Dunes Natural Preserve is managed under the Pismo State Beach park unit. The preserve was established in 1974 and comprises 695 acres of vegetated and bare sand dunes. The Resource Management Plan sets the following declarations for the Pismo Dunes Natural Preserve:

Declaration of Purpose: Pismo Dunes Natural Preserve is established to perpetuate in essentially natural condition a substantial tract of sand dunes in an area where they attain outstanding development and where they may easily be visited and enjoyed by interested persons. Full protection is also afforded to all archaeological sites located within the unit and to all natural vegetation and wildlife occurring within it.

Declaration of Management Policy: CDPR will manage the [Dunes Preserve] in accordance with the [PRC] 5001.5(f) and with the CDPR Resource Management Directives. It will be kept free not only of roads, structures, and other facilities, but also of dune stabilization projects of all kinds. Motorized vehicles of any type, except in cases of extreme emergency, are prohibited.

Oceano Dunes SVRA. SVRAs consist of lands selected, developed, and operated to provide OHV recreation opportunities. Areas must be developed, managed, and operated for the purpose of providing the fullest appropriate public use of the vehicular recreational opportunities present, in accordance with the OHMVR Act of 2003 (PRC § 5090.01 *et seq.*), while providing for the conservation of cultural resources and the conservation and improvement of natural resource values over time. Oceano Dunes SVRA is 3,490 acres and is contiguous with Pismo State Beach. As a result, the vehicle operations at Pismo State Beach and Oceano Dunes SVRA are managed as an SVRA. Between the two park units, approximately 1,138 acres are set aside for OHV use in what is called the "open riding area," the majority of which is within Oceano Dunes SVRA. Within the SVRA, well over 2,100 acres outside of the open riding area are maintained in a largely natural state and 202 acres are leased as agricultural land.

The General Development Plan provides the following Declarations of Purpose and Management Policy for Oceano Dunes SVRA:

Declaration of Purpose: [Oceano] Dunes SVRA is to make available to the people opportunities for recreational use of OHVs in a large area of unstabilized sand dunes exceptionally adapted to this recreational activity; to regulate such uses in the interest of visitor safety and environmental protection; and to provide appropriate related facilities to serve the users of the area. At the same time, the

area is established to afford protection to surrounding stabilized sand dunes that embrace some areas of great ecological interest and significance, including freshwater lakes. These areas are important not only in their own right, but also as key elements in the environment within which the vehicular activities will take place and in the quality of the visitor experience arising from those activities. This protection is to be afforded by exclusion of vehicular activities, by establishment of natural preserves in appropriate locations, and by other measures as required.

Declaration of Management Policy: CDPR will manage … [Oceano] Dunes SVRA in ways that perpetuate and enhance the uses and values enumerated in the declaration of purpose, that reduce or eliminate conflicts between patterns of use arising from the kinds of resources present in the area, and that forward mutual understanding between the diverse groups of visitors and interested persons who use this area for various recreational and scientific pursuits. Operating and management procedures will provide for the protection and perpetuation of the several islands of vegetation existing within the designated vehicular use areas. All departmental activities at… [Oceano] Dunes SVRA will be carried out within the guidelines established by the Resource Management Directives of CDPR.

4.1.3 California State Parks – Department Operations Manual

The Department Operations Manual (CDPR 2005a) includes policies regarding management and protection of special-status species, habitat restoration, non-native animal control, and beach grooming that are relevant to the proposed project activities of SNPL chick and egg capture for captive rearing (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), exclosure reductions (CA-50), and mechanical trash removal (CA-21). The DOM does not state policy specific to drone use (CA-52). All text is from the DOM other than text within brackets.

0310.5.1 Protection of Rare, Threatened, and Endangered Plants and Their Habitats Policy. It is the policy of the Department to protect rare plants and their habitats in fulfillment of its mission to help preserve the state's extraordinary biological diversity, and in accordance with the California Endangered Species Act and the California Native Plant Protection Act [NPPA]. These taxa and habitats will be protected in the context of the native environmental complexes in which they evolved, when feasible.

0310.5.3 Park Projects and Plant Species of Concern Policy. Prior to conducting projects such as facility development or exotic plant eradication, the Department will determine whether any plant species of concern are in the proposed project area. If plant species of concern are found, the Department will attempt to modify the project to avoid impacts to populations of these plants. Permits, such as an ITP from [CDFW] (California Fish and Game Code § 2081), are required if the proposed project cannot be relocated or re-designed to avoid impacts to plants listed as Threatened or Endangered under the California Endangered Species Act. Project proponents will contact [CDFW] to obtain necessary permits.

If a project is proposed for an area containing plants listed under the Federal Endangered Species Act and the proposed project is on Federal property, Federal funds are being used, or a Federal permit (such as a CWA 404 Permit) is required, a Section 7 Consultation with [USFWS] or an ITP from the USFWS may be required. When there is such a Federal nexus, the USFWS should be consulted for guidance in fulfilling requirements of the Federal Endangered Species Act (see DOM Section 0315.3.1).

0311.4.2 Beach Grooming. Sandy coastal beaches are prime recreational assets of the State Park System but are also important ecosystems with characteristic physical and biological processes and inhabitants. Beach wrack consists of rafts of offshore kelp that are carried in by the wind and tides and deposited on the beach, providing food and shelter for the organisms that reside in and on it.

Beach grooming, or the routine mechanical removal of trash and other debris, is carried out on some coastal beaches for public safety and/or aesthetic reasons, especially on beaches that are heavily used for recreation [picking up broken glass, cigarette butts, and other hazardous items]. Beach grooming does not refer to annual beach clean-up events or one-time efforts following large storms. Evidence suggests that grooming using mechanical rakes in some instances alters natural beach processes by reducing the establishment of native beach plants, widening the portion of beach exposed to wind transport of sand and potentially exacerbating sand loss.

0311.4.2.1 Beach Grooming Policy. Where needed, coastal districts will develop beach grooming strategies that are appropriate for the primary purpose for which the unit was established, the classification of the unit, the amount of public use the beach receives, and in consideration of potential impacts to natural resource values and processes. The districts should limit the amount or type of grooming used to that necessary for public health and safety, while allowing natural physical and biological uses of beach wrack to continue.

0311.4.3.1 Habitat Restoration Policy. It is the policy of the Department to restore habitat and native animal populations that have been negatively affected by past land use in the parks. Habitats can be manipulated to restore a disturbed or altered natural habitat or to re-create or simulate a natural habitat element or process. Landscapes and plants in park units may also be altered for special purposes, such as to achieve habitat management objectives for a particular species, population, or community. Such alteration will be carried out in a manner designed to restore the natural functioning of the plant and animal community. An example is using prescribed fire to maintain natural ecosystem processes or to manage the habitat of a sensitive species where natural fires can no longer be permitted to occur.

Such management actions will be considered on a site-by-site basis and be made only after review of park management objectives. Restoration requiring active management can benefit from development of resource management plans that address the steps necessary to achieve the restoration goal.

0311.5.2.1 Special Animal Policy. It is the policy of the Department to protect species listed under the federal or state endangered species acts that are native to State Park System units. The Department will conserve listed species and avoid detrimental effects by:

a. Participating in the recovery planning process;

b. Working with other agencies to help ensure that any formal delineation of critical habitat, essential habitat, and/or recovery areas on State Park System lands is compatible with State Park System management goals; and

c. Cooperating with responsible state and federal agencies to support the protection and recovery of listed species by maintaining the species and the habitats upon which they depend and reducing negative impacts when feasible.

0311.5.2.3 Park Projects and Animals of Special Concern. Prior to conducting projects such as facility development, habitat restoration, or exotic plant eradication, the Department will determine whether any animal species of concern are found in the proposed project area. The

Department will attempt to modify the project to avoid impacts to populations of sensitive animals found in or near to the proposed project area. Permits, such as an ITP from CDFG (Fish & Game Code § 2081), are required if the proposed project cannot be relocated or re-designed to avoid impacts on animals listed as threatened or endangered under the California Endangered Species Act. Departmental project proponents will consult with the CDFG to obtain any necessary permits.

If a proposed project may cause harm to animals listed under the Federal Endangered Species Act, an ITP from the USFWS or NOAA Fisheries may be required if the project is on Federal property, Federal funds are being used, or a Federal Permit (such as a CWA 404 Permit) is required. When there is such a federal nexus, the USFWS or NOAA Fisheries should be consulted for guidance in fulfilling requirements of the Federal Endangered Species Act.

0311.5.7.1 Non-Native Animal Control Policy. The presence of non-native species is generally inconsistent with the Department's mission of maintaining native species and natural systems. It is the policy of the Department that non-native animals not be maintained in the State Park System except to fulfill State Park management goals.

It may not feasible to control or eliminate all non-native species or individual animals on State Park System property. The decision to initiate management should include consideration of the following:

a. The species' interference with natural processes and the perpetuation of natural features, native species or natural habitats;

b. Evaluation of the species' current or potential impact on other park resources;

c. The extent to which the species threatens public health and safety; and

d. The feasibility of control or eradication.

Control actions that require the use of pesticides shall comply with DOM Chapter 0700, Pest Control.

4.1.4 California Coastal Act

The California Coastal Act (PRC § 30000 *et seq.*) identifies the Coastal Zone as a valuable natural resource that should be protected from deterioration and destruction to promote public safety, health, welfare, and to protect public and private property, wildlife, marine fisheries, other ocean resources, and natural environment. The Coastal Zone runs the length of California's coastline, from the Oregon border to the Republic of Mexico, and extends inland generally 1,000 yards from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline paralleling the sea or 5 miles from the mean high tide line of the sea, whichever is less. In developed urban areas, the zone generally extends inland by less than 1,000 yards. The Coastal Act ensures that existing developed uses and future developments are carefully planned and developed consistent with the policies of the Coastal Act. The Coastal Act also constitutes California's Coastal Zone Management Program within the Coastal Zone for purposes of the Federal Coastal Zone Management Act of 1972 (16 U.S.C. § 1451, *et seq.*).

Relevant goals of the Coastal Act include protecting the overall quality of the Coastal Zone environment, assuring orderly, balanced utilization and conservation of Coastal Zone resources, maximizing public access and recreational opportunities consistent with resource conservation, and giving priority to coastal-dependent and coastal-related developments over other

development on the coast. To achieve these goals, the Coastal Act sets forth specific policies that address issues, including, but not limited to, shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works.

The Coastal Commission, in partnership with coastal cities and counties, plans and regulates the use of land and water in the Coastal Zone. Development activities, which include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a CDP from either the Coastal Commission or the local government. After the Coastal Commission certifies an LCP, the Coastal Commission's permitting authority is largely delegated to the local government (including appeals). The Coastal Commission retains appeal authority over certain local government permit decisions, including, but not limited to, developments between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of beach or mean high tide line where there is no beach, and developments within sensitive resource areas. It also retains original permit jurisdiction (and therefore appeal authority) over development on tidelands, submerged lands, and public trust lands in the Coastal Zone, and it continues to enforce and consider amendments or extensions of CDPs that it issued prior to LCP certification.

While it is the Coastal Commission's responsibility to implement the Coastal Act, all state agencies must carry out their duties and responsibilities in conformity with the Coastal Act (PRC § 30402). Except as specifically provided in the Coastal Act, the Coastal Act does not "increase, decrease, duplicate or supersede the authority of any existing state agency" (PRC § 30401). The Coastal Commission has the authority to regulate development in the coastal zone. However, it "shall not set standards or adopt regulations that duplicate regulatory controls established by any existing state agency under specific statutory requirements or authorization" (PRC § 30401).

4.1.4.1 Definitions

Chapter 2 of the Coastal Act (PRC § 30100 *et seq.*) defines the terms used in the Coastal Act. Relevant terms include the following:

- **"Coastal-dependent development or use"** means any development or use which requires a site on, or adjacent to, the sea to be able to function at all (PRC § 30101).
- **"Coastal-related development"** is defined as any use that is dependent on a coastal-dependent development or use (PRC § 30101.3).
- **"Development"** means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land…; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations…. As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line (PRC § 30101.3).
- **"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 (PRC § 30107.5).

- **"Sensitive coastal resource areas"** means those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, including: special marine and land habitat areas, wetlands, lagoons, and estuaries as mapped and designated in Part 4 of the coastal plan; areas possessing significant recreational value; highly scenic areas; archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer (SHPO); special communities or neighborhoods which are significant visitor destination areas; areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons; areas where divisions of land could substantially impair or restrict coastal access (PRC § 30114).
- **"Wetland"** means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens (PRC § 30114).

4.1.4.2 Coastal Resources Planning and Management Policies

Chapter 3 of the Coastal Act (PRC § 30200 *et seq.*) sets forth the policies that constitute the standards for the adequacy of LCPs and development subject to the Coastal Act. Table 4-1 below summarizes the Coastal Act policies that apply to the proposed changes in park operations as described in Project Description section 2.4.2.2. The consistency of proposed project activities with relevant Coastal Act policies is assessed below in EIR section 4.3.4. It does not include Coastal Act standards that clearly do not apply to the proposed new activities, such as standards related to land conversion and water-related activity.

Table 4-1. California Coastal Act, Coastal Resources Planning, and Management Policies Relevant to CDPR Proposed New Activities

PRC Section	Title and Summary of Requirement
30210	**Access; recreational opportunities; posting:** Maximum access 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.
30213	**Lower cost visitor and recreation facilities:** Lower cost visitor and recreation facilities shall be protected, encouraged, and provided; developments providing public recreation are preferred.

Table 4-1. California Coastal Act, Coastal Resources Planning, and Management Policies Relevant to CDPR Proposed New Activities

PRC Section	Title and Summary of Requirement
30214	**Implementation of public access policies:** (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.
30221	**Oceanfront land:** 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.
30223	**Upland areas:** Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.
30230	**Marine resources; maintenance:** Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.
30231	**Biological productivity; water quality:** The biological productivity and the quality of coastal waters appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing substantial interference with surface waterflow, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.
30232	**Oil and hazardous substance spills:** Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.
30240	**Environmentally sensitive habitat areas; adjacent developments:** (a) Environmentally sensitive habitat areas shall be protected against significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.

Table 4-1. California Coastal Act, Coastal Resources Planning, and Management Policies Relevant to CDPR Proposed New Activities

PRC Section	Title and Summary of Requirement
30253	**Duties of New Development:** New development shall do all 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; and (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses..
30255	**Priority of Coastal-Dependent Developments Over Other Developments.** Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

4.1.4.3 Local Coastal Programs

The Coastal Act requires that each local government lying in the coastal zone prepare an LCP for that portion of the coastal zone under the local government's jurisdiction (§ 30500[a]). Once prepared, the draft LCP is submitted to the Coastal Commission for certification that it conforms to the requirements of the Coastal Act. After an LCP has been approved, the Coastal Commission's coastal permitting authority over most new development is transferred to the local government, which applies the requirements of the LCP in reviewing applications for proposed new developments. The Coastal Commission retains permanent jurisdiction over development proposed on tidelands, submerged lands, and public trust lands, and also acts on appeals from certain local government permit decisions. The Coastal Commission reviews and approves amendments to previously certified LCPs.

Proposed new covered activities analyzed in this EIR are located within the boundaries of the City of Grover Beach LCP and San Luis Obispo County LCP as shown in Figure 4-1. The County's LCP, which was certified by the Coastal Commission in 1984, includes Coastal Plan Policies (County of San Luis Obispo 2018) that are applied in conjunction with the certified LUP and County's Coastal Zone Land Use Ordinance (CZLUO). The Plans collectively describe County land-use policies for these planning areas, including regulations that are also adopted as part of the CZLUO and LCP, including policies addressing the development of Pismo State Beach and Oceano Dunes SVRA. In addition, the Oceano Specific Plan (County of San Luis Obispo 2008), certified by the Coastal Commission in April 2004, is intended to be applied in conjunction with the San Luis Bay Area Plan (Coastal).

All proposed changes to park operations (Project Description section 2.4.2.2) would occur within the SVRA, which lies within the San Luis Bay Coastal Area Plan and the South County Coastal Area Plan of the County LCP. Mechanical trash removal (CA-21) would additionally occur within the area subject to the Grover Beach LCP. Table 4-2 below summarizes the County LCP policies that apply to the proposed new activities.

Table 4-2. San Luis Obispo County Local Coastal Program Policies Relevant to Proposed New Activities

LCP Section	LCP Policy Title and Summary of Requirement
Chapter 3 Recreation and Visitor- Serving Facilities	**Policy 1. Recreation Opportunities:** Coastal recreational and visitor-serving facilities, especially lower-cost facilities, shall be protected, encouraged and where feasible provided by both public and private means. Removal or conversion of existing lower cost facilities and opportunities in areas designated with the "V" Visitor Serving Overlay in the LUE shall be prohibited unless the use will be replaced by a facility offering comparable visitor serving or recreational opportunities. Visitor-serving facilities include all lodging establishments included in the definition of Hotels, Motels in Chapter 7 of Framework for Planning of the Land Use Element and Local Coastal Plan; provided that hotels and motels which are condominium or planned development projects may be approved only where specifically identified as an allowable use by planning area standards of the Land Use Element and Local Coastal Plan. The new construction of non-visitor-serving or non-principally permitted uses shall only be permitted if it can be found that they would not prejudice the provision of adequate visitor-serving facilities to meet the foreseeable demand over the next 20 years. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.] [Amended 1992, Ord. 2544]
	Policy 3. Low Cost Facilities: Larger visitor-serving projects shall make provisions for services which are geared to a range of costs, including low cost facilities. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]
	Policy 7. Low Cost Facilities within State Parks: The State Department of Parks and Recreation should provide lower cost recreation facilities such as overnight camping and youth hostels where possible. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]
Chapter 6: Environmentally Sensitive Habitats Policies for Environmentally Sensitive Habitats	**Policy 1. Land Uses Within or Adjacent to Environmentally Sensitive Habitats.** New development within or adjacent to locations of environmentally sensitive habitats (within 100 feet unless sites further removed would significantly disrupt the habitat) shall not significantly disrupt the resource. Within an existing resource, only those uses dependent on such resources shall be allowed within the area. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE COASTAL ZONE LAND USE ORDINANCE (CZLUO).]
	Policy 2. Permit Requirement. As a condition of permit approval, the applicant is required to demonstrate that there will be no significant impact on sensitive habitats and that proposed development or activities will be consistent with the biological continuance of the habitat. This shall include an evaluation of the site prepared by a qualified professional which provides: a) the maximum feasible mitigation measures (where appropriate), and b) a program for monitoring and evaluating the effectiveness of mitigation measures where appropriate. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE CZLUO.]
	Policy 3. Habitat Restoration. The county or Coastal Commission should require the restoration of damaged habitats as a condition of approval when feasible. Detailed wetlands restoration criteria are discussed in Policy 11. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.170 OF THE CZLUO.]

Table 4-2. San Luis Obispo County Local Coastal Program Policies Relevant to Proposed New Activities

LCP Section	LCP Policy Title and Summary of Requirement
Chapter 6: Environmentally Sensitive Habitats Policies for Environmentally Sensitive Habitats	**Policy 29. Protection of Terrestrial Habitats.** Designated plant and wildlife habitats are environmentally sensitive habitat areas and emphasis for protection should be placed on the entire ecological community. Only uses dependent on the resource shall be permitted within the identified sensitive habitat portion of the site. Development adjacent to environmentally sensitive habitat areas and holdings of the State Department of Parks and Recreation shall be sited and designed to prevent impacts that would significantly degrade such areas and shall be compatible with the continuance of such habitat areas. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.176 OF THE CZLUO.]
	Policy 37. Recreational Off-Road Vehicle Use of Nipomo Dunes: Within designated dune habitats, recreational off-road vehicle traffic shall only be allowed in areas identified appropriate for this use. Detailed recommendations concerning protection of the dune habitat within Oceano Dunes [SVRA] are found in the chapter regarding Recreation and Visitor-Serving Facilities. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]
South County Area Plan Policies, Chapter 8 Planning Area Standards	**Rural Area, Recreation Standard 9. ORV Use Area:** ORV use shall be permitted only in identified unfenced vehicular use area. These areas are identified in Figure 4. No recreational ORV use will be allowed in the designated natural areas. These buffer areas reflect areas required for habitat protection and generally recognize the established lease agreement with Union Oil for the areas adjacent to the eastern portion of the park. ORV is prohibited in all vegetated areas. (LCP) ORV use of the county held portion (generally lying between the sandy beach and Dune Lakes) shall be limited to the Sand Highway west to the sandy beach. This will minimize conflicts with the Dune Lake Properties to the east and the State Department of Parks and Recreation Dune Preserve to the north. The map of ORV use areas indicates a buffer area along these critical interface areas. (LCP)

4.1.4.4 Coastal Development Permit 4-82-300 (as amended)

The Coastal Commission approved a General Plan for Pismo State Beach and Oceano Dunes SVRA in 1974, and the State Park and Recreation Commission approved it later that same year. In 1982, State Parks began to implement some of the development projects from the general plan, including kiosks at the vehicle entrances on Grand Avenue and Pier Avenue, an OHV staging area, perimeter fencing, sensitive resources fencing, and setting camping and day-use limits in the SVRA. The Coastal Commission approved CDP 4-82-300 for these projects in June 1982.

Since then, Coastal Commission approved five amendments to the CDP. These amendments included changes to the OHV staging area, installation of fencing, an increase in beach camping limits, elimination of equestrian access in the Oso Flaco Lake area, and adjustments to the interim use limits both street legal and OHV. The CDP amendments are shown in Table 4-3. The permit is subject to certain conditions related to (1) staging areas, (2) control of access to the

park, (3) control of uses within the park, (4) restoration activities, (5) protection of archeological resources, and (6) annual review.

In March 2021, while CDPR was actively engaged in working through the PWP process with Coastal Commission and anticipating a hearing on the PWP, the Coastal Commission instead unilaterally amended the CDP, requiring CDPR to phase out OHV uses in the SVRA over a 3-year period, restrict street-legal vehicle and camping use to a small area, and eliminate the Pier Avenue entrance as well as implement additional resource protection measures (CCC 2021). The Coastal Commission's action was legally challenged, and the Superior Court ruled that the Coastal Commission acted without or in excess of its jurisdiction by permanently prohibiting all OHV use in the SVRA. The Superior Court also found that the Coastal Commission violated CEQA by deciding to close the Pier Avenue entrance without specific CEQA review (State of California Superior Court 2023). On appeal by the Coastal Commission, the California Court of Appeals, Second District affirmed the trial court decision (California Court of Appeals, Second Appellate District 2025).

Table 4-3. Coastal Development Permit 4-82-300 and Amendments

Date	Permit	Purpose
June 7, 1982	4-82-300	Fencing around SVRA riding area perimeter and park entrance kiosks
August 26, 1982	4-82-300 A1	Delay effective date of implementing the 500-campsite daily limit, move location of the interim staging area, provide more specific fencing requirements
June 21, 1983	4-82-300 A2	Permit alteration of protective fence and barrier alignments within Pismo [Oceano] Dunes SVRA
August 24, 1984	4-82-300 A3	Adjust the fence line to allow for OHV use in historically unvegetated open sand areas, as well as areas that were unlikely to become revegetated after damage from past vehicular use
September 10, 1991	4-82-300 A4	Modify Special Condition 1(c) by prohibiting equestrian use in the Oso Flaco Lake area
May 7, 2001	4-82-300 A5	Amend conditions concerning appropriate limits on day use at Oceano Dunes SVRA to establish day and overnight use limits of up to 2,580 street-legal vehicles; 1,000 street-legal vehicles for camping; and 1,720 OHVs and a Technical Review Team.

4.1.5 La Grande Tract Agreement

The HCP area includes 584 acres known as the La Grande tract located in the Oceano Dunes SVRA from the southern border of Pismo Dunes Natural Preserve and extending to just north of Post 7 (Figure 2-3). The property comprises individual tracts of land subdivided in 1905 for development that never occurred. Some of the parcels are owned by San Luis Obispo County, some by CDPR, and others are held in private ownership.

The 1975 Pismo State Beach and Pismo Dunes General Development Plan included the La Grande tract, although the lands were still administered by the County at that time (CDPR 1975). In 1983 CDPR and the County entered into an agreement allowing the State to provide "the care, maintenance, and control for the purposes of the State Vehicular Recreation Area and Trail System, of lands under the jurisdiction of Local Agency (CDPR and SLO County 1983). CDPR

has operated the La Grande tract area since this agreement. Further, regarding the parcels owned by the County, the agreement authorizes the State to provide "care, maintenance, development, operation, and control of the real property …for the purposes of the State Vehicular Recreation Area and Trail System." While the agreement is in force and effect, the property is to remain accessible for the use and enjoyment of all, subject to the control of the State.

4.1.6 Oceano County Airport Land Use Plan

Oceano County Airport is located in unincorporated San Luis Obispo County west of State Route 1, south of Pier Avenue, and just north of the Pismo Dunes Natural Preserve (see Figure 2-2). This civil, general aviation airport averages approximately 27 aircraft per day (AirNav 2024). An airport land use plan establishes land use planning areas, which dictate allowable land uses for areas surrounding an airport (airport overlay zone). The Oceano County Airport Land Use Plan (ALUP) covers the central portion of the HCP area, extending approximately 4,500 feet around the runway.

The San Luis Obispo County Airport Land Use Commission (ALUC) provides for the orderly development of areas surrounding public use airports. In carrying out this duty, the ALUC prepares ALUPs and reviews county and city actions that can affect the land use in the vicinity of the airport. The ALUC is an autonomous entity independent of the San Luis Obispo County government.

The Oceano County ALUP is intended to protect the long-term viability of the airport by ensuring that only compatible land uses are built in the vicinity of the airport, ensuring adoption of land use regulations which minimize exposure of people to hazards associated with airport operations, and providing a set of policies and criteria to assist the ALUC in evaluating the compatibility of proposed actions of local agencies with present and future operations at the Airport (SLOALUC 2007). Section 4 of the ALUP, Airport Land Use Planning Areas, identifies and delineates planning areas based on their proximity to the airport and their potential to be exposed to airport-related hazards. Section 5 of the ALUP, Airport Land Use Compatibility Policies, establishes policies to minimize the exposure of new development to airport-related hazards.

ALUP policies relevant to new development activities are listed in Table 4-4. CDPR proposes mechanical trash removal (CA-21) and could conduct aquatic predator control and surveys for SWPT and WSF (CA-17) within the airport land use planning boundaries for Area OA (open space areas exposed to severe/significant airport impacts) and Area TP-2 (areas exposed to minimal airport impact). These proposed new project activities do not involve development of structures or concentration of people.

Table 4-4. ALUP Policies Relevant to CDPR Proposed New Activities

ALUP Policy	Policy Title and Summary of Requirement
Policy G-1	***ALUP right of review*** – No project or land use may be established within the Airport Planning Area nor may any building or use permit be issued for a proposed development unless the proposed project or land use has been reviewed by the ALUC of San Luis Obispo County and has been determined by that Commission to be consistent with this ALUP. If a project has been determined by the ALUC to be inconsistent, the project or land use may not be established and no building or use permit may be issued for such project or land use unless and until: a) The Board of Supervisors has voted to override the ALUC's determination of inconsistency by a four-fifths majority vote, and b) The Board of Supervisors has made specific findings that the proposed project or land use is consistent with the purposes of the State Aeronautics Act, as stated in Public Utilities Code section 26770(a): "It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards around public airports to the extent that these areas are not already devoted to incompatible uses." The Board of Supervisors has, at a time no less than 45 days prior to its decision to overrule the ALUC, provided to the ALUC and to the Division of Aeronautics of the California Department of Transportation a copy of its proposed decision and of required findings in support of such decision and has included (in its decision to overrule the ALUC) the comments from the ALUC and from the Division of Aeronautics.

With regard to Policy G-1, the Oceano County ALUP identifies that no entity other than an ALUC is empowered by state law to make a determination of consistency with respect to an adopted ALUP, but that the review of individual projects such as those proposed by CDPR is not a responsibility mandated to the ALUC when such projects do not require adoption or amendment of a general plan, zoning ordinance, etc.

4.2 ENVIRONMENTAL SETTING

The HCP area comprises 5,005 acres of CDPR land in Pismo State Beach and Oceano Dunes SVRA located on the central coast of California in San Luis Obispo County. Adjacent communities include the City of Pismo Beach, City of Grover Beach, and the unincorporated community of Oceano (Figure 4-1).

The HCP area comprises the ocean shoreline with its adjoining natural landscapes and ecosystems; developed areas include campgrounds, a golf course, boardwalk trails, park entrance kiosks and parking areas, ranger station, and corporation yard, and peripheral agricultural land. A description of the land use and activities associated with park operations is presented in EIR section 2.4.2.1 and HCP section 2.2. Land use acreages are presented in Table 2-1.

Grand Avenue is a major arterial road that provides access to Pismo State Beach and Oceano Dunes SVRA. Between the public entrance kiosk and State Route 1, West Grand Avenue is primarily bordered by vegetated dunes (on the south) and existing commercial development (on the north). Pier Avenue in Oceano is another major arterial road providing access to Pismo State Beach and Oceano Dunes SVRA. Development on Pier Avenue west of Oceano Lagoon includes

the Oceano Campground and residential and commercial uses. Other notable pedestrian access areas include Main and Cypress streets located north of the Pismo Beach Pier and Oso Flaco Lake boardwalk in the southern portion of Oceano Dunes SVRA.

4.3 PROJECT IMPACTS

4.3.1 Thresholds of Significance

Consistent with CEQA Guidelines Appendix G, the project would have a significant impact to land use if it would:

- Physically divide an established community; or
- Cause a significant environmental effect due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The Oceano Dunes District HCP would not result in the construction of any physical barriers in surrounding neighborhoods. Therefore, the impact of physically dividing an established community is not further discussed in this EIR.

4.3.2 Conformance with Pismo State Beach and Oceano Dunes SVRA General Development and Resource Management Plan

The majority of the covered activities included in the HCP are existing activities that have been occurring for many years. The HCP identifies potential future activities that would be covered by the federal ITP (EIR section 2.4.2.3). These future activities are as-yet unplanned and would be subject to subsequent environmental review and approval (EIR section 1.5 and section 2.5.3). Potential future projects are considered in the cumulative impacts (EIR section 4.4).

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreational Activities and Other Non-Covered Species Management Activities (CA-12b). CDPR monitors would capture SNPL chicks or eggs if they were threatened by covered activities not related to covered species management (e.g., motorized recreation, new proposed activities) and relocate the chicks and/or eggs to a captive-rearing facility. This activity supports the conservation efforts consistent with General Plan policy direction. SNPL chick and egg capture for captive rearing would not conflict with the General Development and Resource Management Plan and therefore would have ***no impact*** on state general plan policy.

Tidewater Goby and Salmonid Surveys (CA-13) – Stranded Tidewater Goby Salvage. CDPR proposes the salvage of stranded tidewater goby as offset to incidental take. This activity supports the conservation efforts consistent with General Plan policy direction. Surveying and relocation of individual animals determined to be at risk would not conflict with the General Development and Resource Management Plan and therefore would have ***no impact*** on state general plan policy.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. CDPR proposes conducting surveys to establish baseline data for these species. Survey methods would likely include visual encounter surveys and may include other methodologies such as acoustic monitoring, e-DNA sampling, or funnel traps (for SWPT). Surveys would be conducted by qualified biologists in accordance with the protocols in effect at the time of surveys. AMMs would allow relocating species if determined to be at risk (General AMM 3 for SWPT, CRLF, and WSF). This activity supports the conservation efforts consistent

with General Plan policy direction. Surveying and relocation of individual animals determined to be at risk would not conflict with the General Development and Resource Management Plan and therefore would have ***no impact*** on state general plan policy.

Habitat Restoration Program (CA-16) – Dune Slack Restoration. CDPR proposes to restore at least 0.75 acres of dune slack wetland associated with Surprise Lake and/or Jack Lake as mitigation. Proposed restoration activities include removal of emergent vegetation and establishing deep pool habitat with transitional banks and swales. This activity would have a beneficial effect on SWPT, CRLF, and WSF as well as wetland plant species. The restoration effort would increase the quality and quantity of wetland habitat and is consistent with General Plan policy direction. Dune slack restoration would not conflict with the General Development and Resource Management Plan and therefore would have ***no impact*** on state general plan policy.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Species Predator Control. CDPR proposes to formally remove invasive or other non-native aquatic species as part of its predator management program to reduce threats to SWPT, CRLF, and WSF. Potential invasive animal control activities (e.g., crayfish trapping, bullfrog removal, or trapping red-eared sliders) could involve new activities of installing funnel traps, direct targeting of individuals, and other work in aquatic habitats. These activities would support the conservation effort for SWPT, CRLF, and WSF resulting in a beneficial effect. Invasive aquatic species predator control would not conflict with the General Development and Resource Management Plan and therefore would have ***no impact*** on state general plan policy.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). CDPR proposes mechanical trash removal on beach sand to remove debris and trash as a new activity. This activity has been occurring on a trial basis. This management action would have a positive impact of removing trash that could endanger people's health, pollute local water bodies, or degrade biological resources by endangering wildlife, the ocean, and shoreline habitat. Furthermore, the existing RWQCB MS4 permit requires Oceano Dunes District to prevent trash from entering waterways and the ocean. Conversely, mechanical trash removal would remove organic material from the HCP area as well as trash, and it could result in adverse impacts to biological resources on the beach (EIR section 6.3). Mechanical trash removal would be limited to areas of the beach currently open for public use outside of sensitive habitat areas. Mechanical trash removal activity would not have the potential to change surface emissivity or generate dust in a manner that adversely affects ambient air quality and causes or contributes to existing or projected violations of the NAAQS and/or CAAQS (EIR section 5.3.1). ~~could result in increased emissions of PM. Any health risk associated with a potential increase in exceedances of ambient air quality standards would be avoided through air quality monitoring or implementing dust control outside of the open riding area (see EIR sections 5.3 and 5.5; Mitigation Measure AIR-1)~~. The proposed mechanical trash removal would not conflict with the General Development and Resource Management Plan. The impact on state general plan policy is ***less than significant.***

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). CDPR proposes incremental reduction of the 6 Exclosure, if certain conditions can be met (see EIR section 5.5 and section 6.5), and elimination of the East Boneyard Exclosure. These two areas are exclosed seasonally for 7 months of the year (March 1 through September 30) to provide protected nesting habitat for SNPL and CLTE. The proposed reduction in the size of these exclosures is consistent with the General Development Plan management policy of managing the SVRA to reduce conflicts between recreational use, congestion, safety, and health. The elimination of the East Boneyard

Exclosure would expand the area used for open sand dune riding area by approximately 47 acres. The reduced 6 Exclosure would expand the flat beach area along the shoreline open to year-round camping and OHV recreation by up to 62 acres. The increase in available shoreline during the summer season would reduce congestion in a heavily used area. Combined, the two exclosure reductions would open year-round access on up to 109 coastal acres and provide recreational benefit (see EIR section 8.3).

The HCP's conservation program, including the AMMs, would ensure the exclosure reduction is conducted in such a way that nesting SNPL and CLTE breeding success is perpetuated and biological resources are protected (see EIR section 6.3). Any health risk associated with a potential increase in exceedances of ambient air quality standards would be avoided through air quality monitoring and reversal of the exclosure reduction if performance standards are not met (see EIR sections 5.3 and 5.5; Mitigation Measure AIR-1) or implementing dust control outside of the open riding area. As such, the exclosure reductions would not conflict with the General Development and Resource Management Plan policies of protecting natural resources. The impact on state general plan policy is ***less than significant.***

CDPR UAS Use for Park Activities (CA-52). CDPR's use of UAS (e.g., drones) is proposed for data collection purposes such as monitoring of habitat conditions. This aerial equipment would be used to support the conservation program effort and is consistent with CDPR policy direction for management and protection of natural resources. UAS use would not conflict with the General Development and Resource Management Plan and therefore it would have ***no impact*** on state general plan policy.

4.3.3 Conformance with California State Parks Department of Operations Manual Grooming Policy

Trash poses a danger to people's health, wildlife, the ocean, and shoreline habitat, and it needs to be removed from the environment. CDPR has a trash control program including the availability of dumpsters at Post 2. Further, CDPR must comply with MS4 requirements from the RWQCB, which requires prevention of all trash to be removed from waterways and the ocean.

As an additional tool for removing litter from the beach, CDPR proposes using a mechanical device (CA-21) in multiple areas receiving heavy visitor use. CDPR would follow best practices, including keeping the device outside of sensitive habitat areas and above the high tide (wrack) line, avoiding all plants and animals, bypassing cultural sites, and keeping a safe distance from visitors. Mechanical trash removal would occur infrequently in any given area, allowing natural physical and biological uses of beach wrack to continue. Pismo State Beach and Oceano Dunes SVRA are heavily used recreation areas. As such, mechanical trash removal with the proposed limitations is consistent with the Department of Operations Manual, section 300 regarding beach grooming and beach grooming policy (EIR section 4.1.3).

4.3.4 Conformance with California Coastal Act

CDPR proposes new activities identified in the HCP for project approval. The discussion below addresses conformance of these activities with applicable California Coastal Act policies (PRC 30201 et. seq) and LCP standards. Consistency of existing park operations with the Coastal Act are not evaluated in this EIR. Consistency of potential future park projects identified in the HCP that are not yet proposed by CDPR for project approval are not evaluated in this EIR and would be evaluated at the time they are proposed for CDPR approval.

LCP policies primarily address new development subject to a CDP. As such, policies addressing the impacts of new development activities do not apply unless a permit is required. As discussed below, a CDP may be required for new activities proposed by CDPR. CDPR will consult with responsible agencies, including the Coastal Commission, as appropriate for permitting proposed new activities.

4.3.4.1 Coastal Act Policies

As discussed below, CDPR's proposed new activities would not conflict with the California Coastal Act. Thus, the impact is considered ***less than significant***.

Section 30210 Access; Recreational Opportunities; Posting

SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), and CDPR's use of UAS (CA-52) would not intersect with public access to or enjoyment of the coastal shoreline. These activities largely involve field observation or habitat improvement activities by CDPR staff outside of public use areas on CDPR management property or relocation of individual protected animals at risk of harm. These activities would not create physical barriers that restrict or limit public access or interfere with the public's right to access the ocean shoreline. These activities would have no impact on recreational opportunities or natural resources from overuse and are consistent with Coastal Act section 30210.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal)

Mechanical trash removal (CA-21) is presently occurring as a pilot program. The equipment presence on the beach is temporal, transient, and infrequent. The equipment operation does not involve installation of structures and would not require beach closure or substantially impede public access or otherwise alter public use of the beach. During mechanical trash removal operations, beach areas would be temporarily closed to public access while equipment is operating. Operations would occur when park visitation is low (e.g., early morning hours) to minimize disrupting visitor uses and would occur roughly twice per year during spring and fall months. Equipment would be operated to avoid wrack/surf cast kelp, live vegetation, lagoons, flowing creeks and known nesting areas. Avoidance and Minimization Measures (see Table 2-6.) would be implemented. As a result, the impact of mechanical trash removal would have a minimal and less-than-significant impact on coastal access and recreation opportunity and would not cause impact to natural resource areas from overuse. Mechanical trash removal (CA-21) is consistent with Coastal Act section 30210.

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50)

Reducing the seasonal exclosure area (CA-50) as proposed would lift the 7-month seasonal access restriction on up to 62 acres of coastal shoreline (6 Exclosure) in an area of high demand for recreation and beach camping during the months coinciding with peak visitation (March 1 – September 30). It would also lift the seasonal restriction on 47 acres of backdune (East Boneyard Exclosure). The 6 Exclosure reduction would only be considered if HCP biological criteria and other regulatory program requirements are met (EIR sections 5.50 and 6.5). Reduction of Boneyard Exclosure and 6 Exclosure (CA-50) is consistent with Coastal Act section 30210 regarding providing maximum acreage access for all people.

Natural resources within the Southern Exclosure affected by CA-50 would be protected from overuse by CDPR's adherence to established vehicle and camping limits, as well as numerous

AMMs (see EIR Appendix B). The proposed new activities (CA-12b, CA-21, CA-50, CA-52) would not increase visitor use limits established for the park, do not expand the carrying capacity of the park, or expand the footprint of the open riding area boundary into new areas not presently disturbed by recreational use, or areas permitted for OHV use by the County LCP. See further discussion below regarding Coastal Act section 30240 pertaining to Environmentally Sensitive Habitat Area (ESHA) impacts.

CDPR management of recreation includes protection of natural resources, monitoring for damage, enforcement actions, and, if needed, adaptively reducing vehicle and camping access to the park. The success of the conservation program demonstrates that the natural resources supporting SNPL and CLTE nesting populations are not suffering from overuse and that adequate protections are in place. CDPR would continue to monitor the re-opened exclosure areas and utilize adaptive management as necessary to ensure that the natural resource areas are protected from overuse. This is consistent with the recommendations in the San Luis Obispo Coastal Plan Policy Recreation and Visitor Serving Facilities section to ensure that carrying capacity is not exceeded and natural resources are not adversely impacted from overuse. Therefore, CA-50 is consistent with Coastal Act section 30210 protecting natural resources. Further, as discussed below, the project activities are consistent with relevant LCP policies.

Section 30213 Lower Cost Visitor and Recreation Facilities

SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), and CDPR's use of UAS (CA-52) involve field observation or habitat improvement activities by CDPR staff or relocation of individual animals at risk of harm. These activities would have no impact on lower cost visitor and recreational facilities. Coastal Act section 301213 does not apply to these activities.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal

Mechanical trash removal activity (CA-21) would temporarily close sections of beach subject to trash removal activity during equipment operation. Mechanical trash removal activity would not block public access to the shoreline or otherwise interfere with or reduce access to public recreation opportunities provided by the state park unit. Mechanical trash removal (CA-21) is consistent with Coastal Act section 30213.

Reduction of Boneyard and 6 Exclosures (CA-50)

Potential reductions in existing seasonal exclosures (if biological and operational criteria are met) would increase the acreage of camping and OHV riding area available in the SVRA throughout the year. As stated above, this increased access to park acreage for riding and camping is consistent with Coastal Act section 30210. The SVRA offers low-cost visitor recreation. Increasing acreage available to riding, camping, and non-motorized recreation uses is consistent with Coastal Act section 30213.

Section 30214 Implementation of Public Access Policies

Proposed new resource management activities including SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), and CDPR's use of UAS (CA-52) involve data collection, species handling, and habitat improvements. These activities would not impact public access or use of the coastal zone at Oceano Dunes. Site topography at project locations would not affect proposed activities. With the exception of dune slack

restoration (CA-16), none of these management actions involve ground disturbance activity that would alter topographic site characteristics. Dune slack restoration would modify the landform, however this would occur in areas closed to visitor use and would therefore not affect public access within the coastal zone. These activities would not affect visitor levels or the capacity of the park to sustain visitor use. The activities do not affect existing public access or affect the privacy of adjacent property owners or aesthetic values of the area by collection of litter. These proposed resource management activities are consistent with Coastal Act section 30214.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal

Mechanical trash removal involves periodic raking of the sand surface to a depth of 2 to 6 inches to remove debris and organic material along two 0.25-mile beach segments near vehicle entrances and along a 1.25-mile stretch of shoreline south of Post 2. The raking would produce minor disturbance of the sand surface that would not alter the beach topography or landform. Mechanical trash removal would be limited to heavily used beach areas with relatively flat topography. No mechanical trash removal would occur in backdune areas. The equipment presence on the beach is temporal, transient, and infrequent. The equipment operation would not require beach closure or substantially impede public access or otherwise alter public use of the beach. During mechanical trash removal operations, beach areas would be temporarily closed to public access while equipment is operating. Operations would occur when park visitation is low (e.g., early morning hours) to minimize disrupting visitor use and would occur roughly twice per year during spring and fall months. Mechanical trash removal does not change the intensity of use of land or limit public access to the right to pass and repass. The mechanical trash removal would not affect privacy of adjacent property owners. Removal of litter would reduce collection of litter which could have beneficial aesthetic impacts in the park area and enhance the quality of public access to coastal recreation. Mechanical trash removal is consistent with Coastal Act section 30214.

Reduction of Boneyard and 6 Exclosures (CA-50)

Elimination of the East Boneyard Exclosure and the phased reduction of the 6 Exclosure increases public access to up to 109 acres within the coastal zone. Topographic site conditions within these areas are consistent with the riding area open to year-round recreation. Daily visitor use levels are restricted by the park's CDP (see section4.1.4.4 and Table 4-3) which would remain unchanged by the proposed project. Reducing the size of the seasonal exclosure would increase the acreage of camping and OHV riding area available in the SVRA throughout the year. This increases public access to park acreage for riding and camping consistent with Coastal Act section 30210. The proposed exclosure reduction would not limit public access to the right to pass and repass and would not affect the privacy of adjacent property owners or the aesthetic values of the area by collection of litter. Reduction of Boneyard Exclosure and 6 Exclosure is consistent with Coastal Act section 30214.

Section 30221 Oceanfront Land and Section 30223 Upland Areas

SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), Boneyard Exclosure and 6 Exclosure reduction (CA-50), and CDPR's use of UAS (CA-52) do not impact recreational access or use of oceanfront land or upland areas. Proposed reduction of the 6 Exclosure and elimination of the East Boneyard Exclosure (CA-50) would increase oceanfront acreage available to recreational use by up to 109 acres by lifting the seasonal closure in effect during the SNPL/CLTE breeding

season (March 1 to September 30). These proposed activities are consistent with Coastal Act sections 30221 and 30223.

Section 30230 Marine Resources; Maintenance and Section 30231 Biological Productivity; Water Quality

SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21); and CDPR's use of UAS (CA-52) would not result in the placement of fill into coastal or other water resources and would not impact commercial fishing or recreational boating facilities. Implementation of these proposed new activities would not adversely affect the marine environment and would serve biological productivity and conservation goals by enhancing the quality of habitat and relocating individual animals at risk of harm. These proposed activities are consistent with Coastal Act sections 30230 and 30231.

Habitat Restoration Program (CA-16) – Dune Slack Restoration

Dune slack restoration (CA-16) would restore at least 0.75 acres of wetland associated with Surprise Lake and/or Jack Lake. CDPR would implement restoration projects that remove emergent vegetation (e.g., tule and cattails) and establish deep pool habitat with transitional banks and swales to support SWPT, CRLF, WSF, and wetland species. CDPR would also remove invasive exotic predators including crayfish, bullfrog, red-eared slider, and non-native warm water fish at the restored wetland habitat. Dune slack restoration would serve biological productivity by improving the habitat quality of special-status species. These proposed activities are consistent with Coastal Act sections 30230 and 30231.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal

Mechanical trash removal (CA-21) would occur above the wrack line, would avoid creek mouths and lagoon areas, and would under no circumstances occur in any water body. Equipment operations would occur infrequently and be limited in location to heavily used areas. Biological monitors would be required to clear treatment areas prior to each deployment of the trash removal equipment. The impact on biological resources is determined to be less than significant as discussed in Biology section 6.3. Mechanical trash removal is consistent with Coastal Act sections 30230 and 30231.

Reduction of Boneyard and 6 Exclosures (CA-50)

Reductions in seasonal exclosure fencing (CA-50) would not substantially affect biological productivity, water quality, or the marine environment beyond baseline conditions. The potential impacts to SNPL and CLTE nesting productivity generated by reducing the Boneyard Exclosure and 6 Exclosure is discussed in Biology section 6.3. The conservation program implemented by CDPR would offset potential impacts of increasing recreational access to the affected acreage from seasonal to year-round. The change in access would not change the overall vehicle use activity within the park as vehicle use limits would remain unchanged (see discussions of Coastal Act policies 30240, 30253, 30255 and LCP Chapter 8 Rural Area, Recreation Standard 9 presented below). The impact on biological productivity, marine environment and water quality is determined to be less than significant as discussed in Biology section 6.3 and Hydrology and Water Quality section 10.3.6. Reduction of Boneyard Exclosure and 6 Exclosure is consistent with Coastal Act sections 30230 and 30231.

Section 30232 Oil and Hazardous Substance Spills

The OHMVR Division protects against oil or hazardous substance spills in accordance with existing regulations and requirements as part of existing operations and maintenance (EIR section 10.3, Hydrology/Water Quality). SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), Boneyard Exclosure and 6 Exclosure reduction (CA-50), and CDPR's use of UAS (CA-52) do not introduce new threat of oil or hazardous substance spills into park operations. These proposed activities are consistent with Coastal Act section 30232.

Section 30240 Environmentally Sensitive Habitat Areas; Adjacent Developments

SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), invasive aquatic species predator control (CA-17), and CDPR's use of UAS (CA-52) are resource management activities that do not involve ground disturbance or habitat modification of any kind. These actions would have no impact on ESHA and would not result in significant disruption of habitat values as described in Biology section 6.3. These activities do not comprise development in or adjacent to ESHA and would not degrade ESHA. These proposed activities are consistent with Coastal Act section 30240.

Habitat Restoration Program (CA-16) – Dune Slack Restoration

Dune slack restoration is proposed on at least 0.75 acres at Jack Lack and/or Surprise Lake for the purpose of improving aquatic habitat for special-status species (SWPT, CRLF, and WSF) and offset anticipated take impacts of these species as discussed in Biology section 6.3.2. Up to 4 acres of scrub habitat is expected to be disturbed by grading activity. The long-term impacts to covered species are expected to be beneficial. Dune slack restoration would not degrade ESHA and this habitat modification would be compatible with the continuance of the habitat values and recreation areas. Dune slack restoration is consistent with Coastal Act section 30240.

General Facilities Maintenance (CA-21) - Mechanical Trash Removal

CA-21 mechanical trash removal involves periodic raking of the sand surface to a depth of 2 to 6 inches to remove debris and organic material. Mechanical trash removal does not involve grading, removal or harvest of vegetation, change the density or intensity of use of land, or introduce solid material into the environment. Mechanical trash removal would be infrequent and occur only in dry beach areas of highest recreational use. Mechanical trash removal would not impact special-status plants or wildlife nor substantially alter critical habitat (Biology section 6.3). Given CDPR's AMMs, such as conducting mechanical trash removal only above the highest tide, avoiding active wrack and surf cast kelp, avoiding all live vegetation, avoiding lagoons and flowing creeks, the impact on ESHA is not significant. Mechanical trash removal is consistent with Coastal Act section 30240.

Reduction of Boneyard and 6 Exclosures (CA-50)

The Coastal Act (PRC section 30240) limits permitted new development in ESHA to resource dependent uses. Oceano Dunes is a designated SVRA allowing motorized and non-motorized recreation in a beach dune environment, including motorized access to non-motorized coastal recreation. The County's LCP specifically permits OHV recreation within specified areas designated as ESHA. OHV use in ESHA is thus consistent with the certified LCP, and certification of the LCP in 1984 was an implicit determination that the LCP was consistent with the Coastal Act.

CA-50 would allow for incremental reduction in the seasonal exclosure fencing resulting in increased recreational access of up to 109 acres from 5 months per year in the non-nesting season (October 1 – February 28) to year-round. CA-50 does not open up significant *new* areas to OHV use in potential dune ESHA. The subject exclosure areas are located within a legislatively authorized park unit set aside specifically for balanced OHV recreation opportunity. OHV use is consistent with the designated and permitted use of this property, and the areas affected by CA-50 are not new to OHV use. East Boneyard (47 acres) and the 6 Exclosure (62 acres) were open to year-round recreation prior to park inception (1974) until about 2000 and 2004, respectively, with the latter expansion intended to be interim until such a time as an HCP could be completed and an ITP issued by the USFWS for incidental take caused by park operations.

CA-50 does not change the number of vehicles that can access the park, expand the footprint of riding area disturbance, or introduce new structures into the environment. Fencing erected to establish the seasonal exclosure would continue to be installed and removed annually consistent with resource management needs. The proposed exclosure reduction would increase the duration of recreational access on up to 62 acres of shoreline and 47 acres of backdune. The exclosure reduction does not change the vehicle use limits established for the park and therefore does not change the intensity of recreational land use within the park as a whole; it would increase intensity of vehicle recreation that could occur within the opened exclosure area by expanding the duration of exposure to recreational use. The exclosure fencing is seasonally installed and removed. Reducing the 6 Exclosure would modify the northern fence boundary incrementally southward from Post 6 toward Post 7. The existing CDP identifies the northern limit of the seasonal exclosure at Post 7. The 2003 Settlement Agreement with the Sierra Club on a FESA lawsuit, unrelated to the Coastal Act, extended the northern limit to Post 6 (Table 2-2). Reducing the exclosure and the resulting modification of the fence line location would not introduce new "placement or erection of any solid material or structure" beyond what already occurs on an annual basis and would be consistent with the seasonal exclosure area described in the existing CDP.

Ongoing recreational use within the seasonal exclosure is an approved use under the LCP (section 4.3.4.2). Recreational use in the SVRA is consistent with the SVRA designation, predates ESHA designation, predates state and federal listing of SNPL and CLTE, and is consistent with the LCP.

The reopening of 6 Exclosure would occur in ESHA providing primary nesting habitat for both SNPL and CLTE. The reopening would occur in small 7.5-acre increments as it is determined by annual population-based data that SNPL and CLTE are not impacted. The conservation program implements AMMs, which have been proven effective in facilitating a stable population of CLTE and SNPL at the SVRA. The HCP includes a recourse of reversing the exclosure reduction if target population levels cannot be sustained. Reopening the 6 Exclosure to year-round recreation would remove protected nesting habitat created by fencing, but it would not fundamentally change the beach landscape. The action would not impair ESHA values, and the method of monitoring and readjusting the condition of the exclosure is consistent with the recommendations in the San Luis Obispo LCP Recreation and Visitor Serving Facilities section.

The reopening of East Boneyard is not a significant impact on an ESHA area. While generally mapped as ESHA, the area does not support vegetation and has limited nesting habitat value. The area is mostly secondary and tertiary habitat for SNPL and CLTE. As demonstrated by the HCP data (HCP Figures 11 and 12), there have been very few SNPL nesting attempts and no CLTE attempts in this area over the last 14 years. The East Boneyard Exclosure also lacks proximity to

the shoreline for foraging and the flat topography preferred by the birds for nesting habitat. Adjacent dune vegetation to the east likely contributes to the undesirability of this location for SNPL and CLTE nesting. As such, East Boneyard is not high-quality habitat and its year-round use by recreation would not impair habitat values or defining characteristics of ESHA.

The LCP recognizes the need for site specific evaluations when considering project impacts in locations broadly mapped as ESHA. The LCP acknowledges that high-intensity recreational uses can be compatible with dry sandy areas. The HCP with its comprehensive suite of AMMs demonstrates how terrestrial ESHA would be protected. As a result, CDPR has concluded that the impacts to protected species have been minimized and the impact to terrestrial ESHA from lifting the seasonal access restriction at the Post 6 and East Boneyard section of the riding area is not significant.

The USFWS is the regulatory authority under FESA Section 7 to assess impacts to SNPL and La Graciosa thistle critical habitat from all proposed ITP covered activities identified in the HCP. The USFWS prepared a Draft EA that concludes the proposed conservation program in the HCP preserves the functionality of critical habitat, which includes the same areas as ESHA. The EA for the Oceano Dunes HCP concludes the impacts to critical habitat from all ITP covered activities, which includes CA-50, would not be significant (MIG, Inc. 2025a).

Reduction of Boneyard Exclosure and 6 Exclosure is consistent with Coastal Act section 30240.

Section 30253 Duties of New Development and Section 30255 Priority of Coastal-Dependent Developments Over Other Developments.

New projects meeting the definition of "Development" under the Coastal Act (PRC § 30101.3) require a CDP. This includes development in the traditional sense of solid material or structure but also activities such as grading or a change in the density or intensity of the use of land (see Draft EIR section 4.1.3.1). It does not include facility maintenance and repair (PRC § 30106). CDPR would consult with responsible agencies, including the Coastal Commission or the appropriate LCP agency for permitting covered activities (Draft EIR section 2.5). The need for a permit is not a significant effect under CEQA.

SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), invasive aquatic species predator control (CA-17), and CDPR's use of UAS (CA-52) do not involve ground disturbance of any kind or change in land use and do not meet any of the definitions of development as defined in the Coastal Act. No CDP would be required for these activities (Draft EIR section 4.1.3.1; PRC 30101.3).

<u>Habitat Restoration Program (CA-16) – Dune Slack Restoration</u>

Dune slack restoration would involve disturbance of up to 4 acres at Jake Lake and/or Surprise Lake for the purpose of improving aquatic habitat. Restoration activities would involve equipment access over dune scrub habitat and grading in the wetland area, which would be considered new development. CDPR would consult with responsible agencies, including the Coastal Commission, as appropriate for permitting covered activities. It would not introduce erosion or geologic instabilities or involve construction of protective devices to protect natural landforms along bluffs and cliffs. The project implementation would have negligible air quality impacts and would not generate new vehicle miles traveled or affect special communities and neighborhoods.

Jack Lake is located in the Phillips 66 leasehold, which is closed to public use. Surprise Lake is located south of Oso Flaco in an area seasonally open to pedestrians only from October 1 to

February 29. Restoration of aquatic habitat in these areas would improve wetland habitat values. The proposed activity would not introduce visitor access to these areas.

Mechanical Trash Removal (CA-21)

CA-21 mechanical trash removal is proposed twice per year during spring and fall months at vehicle entrance and high use visitor areas and south of Post 2 to remove litter and debris. While the rake tines may cause micro changes in beach surface topography, the sand displacement by tines would occur in small measure (measured by inches), be limited to the swath of the rake, and would not move large quantities of sand from one area to another. Beach slope gradients would not be altered. Raking is not the equivalent of grading, which by definition is earthwork movement to achieve a level base or specified slope for construction, landscape, or drainage improvement purposes. While mechanical trash removal does not meet any of the definitions of development as defined in the Coastal Act, CDPR would consult with responsible agencies, including the Coastal Commission, as appropriate for permitting covered activities.

Mechanical trash removal would not introduce new structures or create or contribute to erosion or geologic instability of the beach environment and has been determined to not contribute toward adverse impacts on air quality. Mechanical trash removal would have a negligible impact on fuel energy consumption and would not generate new vehicle miles traveled or affect special communities and neighborhoods.

Reduction of Boneyard and 6 Exclosures (CA-50)

CA-50 would reduce the current seasonal exclosure by up to 62 acres at Post 6 (over eight years if covered species targets are met; HCP section 5.2.3) and 47 acres at East Boneyard. This fencing is presently erected and removed seasonally. CDP 4-82-300 A5 does not address the specifics of the existing seasonal installation and removal of fencing at the East Boneyard and 6 Exclosure locations. It does, however, discuss exclosure fencing and provides the general location of an expanded exclosure, describing a configuration installed roughly as far north as Post 7 (at the time A5 was adopted, the exclosure went as far north at Post 8). CDP 4-82-300 A5 does not purport to permit the final configuration of the exclosure but rather acknowledges the need for adaptive management and includes a stakeholder team and scientific subcommittee intended to make recommendations on the exclosure. The seasonal fencing addressed in CA-50 and referenced in the CDP has been installed and removed and its boundaries adjusted in accordance with CDPR resource directives for decades. The seasonal exclosure fencing had been discussed annually by the scientific subcommittee and stakeholder team established as part of CDP 4-82-300 A5, both of which included Coastal Commission staff participation. However, other than requiring the seasonal exclosure to be expanded from its boundaries as of the 2000 nesting season, the specific configuration of the seasonal fencing itself has never been a condition of a CDP, including CDP 4-82-300 and its amendments. Elimination of seasonal fencing at East Boneyard and adjustment of the northern boundary fence line at the 6 Exclosure does not constitute erection of new solid materials or structures but rather is an adjustment to the existing exclosure configuration. Given that A5 anticipated the adjustment of the exclosure and only contemplated an exclosure as far north as Post 7, the proposed modification is consistent with the existing CDP. Any modifications to the seasonal exclosure are ultimately the responsibility of CDPR and conducted in consultation with the appropriate wildlife agencies.

The proposed CA-50 fencing removal would change recreation access within the exclosure reduction area from five months per year to year-round. This has the potential to seasonally increase the intensity of recreational use occurring on up to 109 acres within the open riding and

camping area. The acreage would be exposed to recreational use for an additional seven months per year. Recreational use of this area would comprise uses already occurring in the same area during the non-breeding season and in adjacent areas, predominately including motorized recreation, camping, and pedestrian uses. No new land use would occur in the exclosure reduction area.

Recreational use within the exclosure reduction area would likely be greatest during the summer months when park visitor use is at peak levels and would be similar to existing recreational use during non-breeding season holidays, e.g., Thanksgiving and Christmas. While the recreational use on this specific acreage within the open riding and camping area may seasonally intensify, the overall recreational use levels within the SVRA area at large would not intensify. Camping and vehicle limits would remain unchanged by proposed new covered activities. As a result, the 62-acre increase in shoreline acreage available for camping, OHV, and other forms of recreation during the summer season would somewhat reduce congestion in a heavily used area (EIR section 8.3.2) resulting in a lower intensity of use in the existing adjacent area open to year-round recreation. The 6 Exclosure area would experience increased camping as existing camping units disperse into the 6 Exclosure resulting in lower density of campers. Reduced congestion improves the quality of the recreation experience and reduces potential safety issues associated with congestion. Because CA-50 fosters dispersion of recreation use within the SVRA as a whole, this change in OHV/camping use boundaries does not create an overall increase in intensification of land use.

As stated above, intensified land use is included in the definition of development triggering permit approval. The SVRA land use intensity is not changed by CA-50 and therefore not considered development.

Exclosure reduction would not introduce new structures or create or contribute to erosion or geologic instability of the beach environment. An increase in sand disturbance on the affected 109 acres from exposure to year-round motorized recreation could contribute toward adverse impacts on air quality. Mitigation identified in Air Quality sections 5.3 and 5.5 would reduce this effect. Exclosure reduction would not affect special communities and neighborhoods.

The underlying use of OHV recreation within the SVRA riding area is consistent with the unit's existing classification. CDPR is not seeking to reclassify the HCP area and is not seeking Coastal Commission approval for the long-standing designation. Management of the SVRA is delegated to CDPR by the Off Highway Motor Vehicle Recreation Act (PRC §5090.01 *et seq.*). CDPR does not require authorization by the Coastal Commission or LCP to restore year-round use of CA-50 area for recreation access. OHV use within the HCP area is consistent with the San Luis Obispo County LCP, which has been certified by the Coastal Commission.

4.3.4.2 San Luis Obispo County LCP Policies

LCP Chapter 3 Recreation and Visitor Serving Facilities

Proposed project activities would not adversely impact coastal recreation and visitor-serving facilities. Natural resource management actions of SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), and invasive aquatic species predator control (CA-17) would have no impact on visitor use. Mechanical trash removal (CA-21) would remove litter and debris from heavily used beach areas, which could beneficially affect visitor experience. Reduction of the seasonal exclosure (CA-50) would protect visitor access to year-round low-cost camping and

recreation opportunities on 109 acres of oceanfront land. Proposed use of drones (CA-52) would have no impact on coastal recreation and visitor serving facilities. The proposed new activities are consistent with LCP Chapter 3 Policy 1, Policy 3, and Policy 7.

Chapter 6 Environmentally Sensitive Habitats Policies for Environmentally Sensitive Habitats

CDPR proposed new activities would not significantly impact ESHA or be inconsistent with the biological continuance of the habitat as discussed above in section 4.3.4.1 and in Biology section 6.3. The proposed natural resource management activities of SNPL chick and egg capture (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), and invasive aquatic species predator control (CA-17) are proposed with the specific purpose of benefitting special-status species and restoring habitat. Although new activities such as mechanical trash removal (CA-21) and seasonal exclosure reduction (CA-50) have the potential for biological impacts, AMMs are incorporated into these actions that reduce the overall impact to the special-status species, their habitat, and the ecological community. CDPR use of UAS (CA-52) would have no impact on ESHA. The new activities would not open up new areas of parkland or ESHA to visitor use or change allowable uses. Motorized recreational use in the proposed exclosure reduction area already occurs during non-nesting season months and vehicle use in this area is consistent with the existing LCP as affirmed by recent court rulings (section 4.1.4.4). The proposed new activities are consistent with LCP Chapter 6 Policy 1, Policy 2, Policy 3, Policy 29, and Policy 37.

San Luis Obispo County LCP, South County Area Plan Policies, Chapter 8 Planning Area Standards - Rural Area, Recreation Standard 9. ORV Use Area.

County LCP Policy Recreation and Visitor Serving Facilities chapter discusses the issue of determining the appropriate level of recreational use in the HCP area and acknowledges that some ESHA habitats may be less sensitive to recreation activities. The section specifically states the following:

> The Coastal Act gives priority to preservation of environmentally sensitive habitat areas over the provision of recreational opportunities; however, many highly used recreational areas within the coastal zone are in or adjacent to sensitive habitat areas, including Morro Bay, Oso Flaco and Dunes Lake and the Pismo Dunes. This situation gives the state park system a dual role in providing recreational opportunities while protecting environmental resources. The determination of carrying capacity is a complex process, requiring consideration of many variables. While some habitat areas (such as dry sandy beaches) can tolerate a high intensity of daytime recreational use, others (such as wetlands) can tolerate only a very low level of use. It is necessary that the recreational carrying capacity for all recreation areas be determined, monitored and readjusted as conditions warrant.

The LCP clearly establishes that OHV recreation is permissible within established boundaries and acknowledges that dry sandy areas can tolerate a high intensity of recreational use such as OHV recreation. The proposed exclosure reduction area (CA-50) does not open *new* areas to OHV use but rather would lift a seasonal access restriction in an area already permitted for OHV use outside the nesting bird season. Further, as described below, the use would occur in a location and manner that would minimize potential ESHA impacts. CA-50 is consistent with this LCP policy.

The County LCP designates Nipomo Dunes as a Sensitive Resource Area (SRA), which is defined as an area having high environmental quality and special ecological or educational significance. The SRA includes four types of ESHA: Wetlands, Coastal Streams and Riparian

Vegetation, Terrestrial Habitats and Marine Habitats. While all these ESHA types occur within the HCP area, the proposed new activities are confined to terrestrial habitats.

The LCP prescribes that projects located on land subject to an SRA combining designation require careful project review to satisfy the ESHA protection requirements of the LCP and, when determining the presence and extent of ESHA within a project area, the LCP directs that the location of development in relationship to SRAs must be determined in accordance with the actual location of the resource, rather than the boundaries as shown on the LCP SRA combining designation maps. Site-specific ESHA delineations are critically important to accurately identifying SRAs and potential project impacts given that site conditions change over time, thus resulting in outdated LCP mapping, and because broad scale LCP mapping must often be reconciled with actual conditions on the ground.

The County's LCP and prior Coastal Commission findings for CDP 4-82-300 recognize that Oceano Dunes SVRA has been designated as a State OHV recreation area and that the Park's uses support unique low-cost public access and recreational opportunities. These uses have been established as vested rights under the authority of State Parks per PRC 30401 and were codified in Coastal Commission Application 36-17 (General Plan for Pismo State Beach) and CDP 4-82-300, and the County's LCP includes specific standards intended to allow this recreational activity to continue in a manner that preserves surrounding sensitive dune habitats.

The County's LCP includes a series of maps and specific policies that assist in evaluating proposed projects for consistency with the LCP. The LCP's land use designation maps indicate those Park areas that have been designated as Recreation, identifying the State Beach and SVRA as the major visitor attraction in the coastal zone and providing for a wide variety of passive and active recreation opportunities including clamming, driving on the beach and recreational vehicle use within the dunes, and those designated as Open Space, identifying areas as important buffer zones to protect the vegetated back dunes and dune lakes and within which only passive recreational activities that are consistent with protection of the sensitive habitat are permitted. The County's Recreation and Open Space land use designations for the Park largely reflect historic patterns of OHV use.

The LCP also contains the SRA combining designation maps used as a first step in determining the potential presence and extent of ESHA within a project area. The LCP directs that the location of development in relationship to SRAs is to be determined in accordance with the actual location of the resource, rather than the boundaries as shown on the LCP SRA combining designation maps taking into consideration the general health of habitat on the project site, assessing the level of habitat fragmentation, the level and duration of development/uses in and around the project site, describing the health and species composition of the habitat, and examining the level of connectivity of habitat the project site to other nearby sites. In the case of dune ESHA within the CDPR project proposal area, a clear distinction is made between bare sand areas historically disturbed by park uses versus naturally vegetated dune habitat, consistent with LCP policies and Coastal Commission findings for CDP 4-82-300 acknowledging and providing for ongoing Park uses in historically disturbed dune areas while mandating protection of adjacent sensitive habitat areas.

In addition to the LCP's land use designation and SRA combining designation maps, the LCP South County Area Plan contains Figure 4, which provides guidance in implementing the specific policy directives related to limiting OHV uses to unfenced and unvegetated dune areas and maintaining natural buffer areas for protection of surrounding sensitive habitat areas. As with all other LCP maps, Figure 4 must be reconciled with actual conditions on the ground, the

land use designation maps contained in the LCP, prior Coastal Commission findings for certification of the LCP and approval of CDP 4-82-300, and the specific LCP policy directives the map is intended to support. Figure 4 identifies the entirety of the La Grande Tract as buffer area in conflict with LCP policies, which specifically acknowledge and provide for ongoing OHV use of the property, a result of the LCP certification process which was pending at the time the Coastal Commission first reviewed and approved CDP 4-82-300 for Park improvements proposed at that time.

Figure 4 was first included in the 1981 draft LCP and accompanied by text proposing that the Park be closed to recreation and camping until State Parks designed and funded a plan making Oso Flaco Lake the primary camping area and access point for the park. The draft LCP was eventually rejected by the Coastal Commission, however, in part because the Coastal Commission found the plan was in conflict with the intent of the Coastal Act to "maximize public access and recreational opportunities for all the people" and that Oso Flaco Lake was too environmentally sensitive for the suggested uses. In 1982, prior to approving the County's revised LCP, the Coastal Commission approved CDP 4-82-300, which included OHV recreation and camping within the La Grande Tract and other areas identified as buffer in Figure 4. When the County LCP was certified in 1984, it was revised to include policies to reflect in general the conditions of the approved CDP 4-82-300, which specifically acknowledge and provide for ongoing OHV use of the La Grande property.

Accordingly, the policy directives of the LCP relative to use of the La Grande Tract, specifically developed and certified to generally reflect the Coastal Commission's approval of CDP 4-82-300, along with the specific terms of CDP 4-82-300, collectively provide the appropriate standard for evaluating the proposed new activities for consistency with the LCP. The LCP's policies and CDP conditions clearly provide for ongoing OHV uses within the La Grande Tract as was historically established and envisioned in the Park's General Plan and further codified in Coastal Commission Application 36-17 (General Plan for Pismo State Beach), CDP 4-82-300, and the County's specific LCP policy directives.

As a result, CA-50 is consistent with Standard 9 of the South County Coastal Area Plan.

4.3.4.3 City of Grover Beach LCP

CDPR proposed new activity within the Grover Beach LCP area is limited to mechanical trash removal (CA-21) along a quarter-mile of beach closest to the Grand Avenue vehicle ramp. As described previously, this activity would be limited to the area above the active wrack line and would not occur in areas of vegetation, creeks, or lagoons. Mechanical trash removal in this area would not impact ESHA or other protected biological resources. The trash removal activity would not conflict with LCP policies protecting natural resources and public use.

4.3.5 Conformance with La Grande Tract Agreement

Of the new activities proposed by CDPR for approval, the La Grande tract would potentially be subject to mechanical trash removal (CA-21) and reduction of the 6 Exclosure (CA-50). These proposed changes in park operations on the La Grande tract are consistent with CDPR's ongoing operations of the area. The proposed new activities would not change public use of the La Grande tract parcels or restrict access. Reduction of the 6 Exclosure (CA-50) would remove the SNPL/CLTE breeding season access restriction on up to 62 acres of beach from Post 6 south to Post 7 during the spring and summer months (March 1 to September 30) allowing year-round access as described in 8.3.2. The proposed project activities are consistent with the provisions of

the agreement allowing the State "care, maintenance, development, operation, and control of the real property" (CDPR and SLO County 1983).

4.3.6 Conformance with Oceano County Airport Land Use Plan

The HCP area includes lands within ALUP planning areas and FAA airport surfaces associated with Oceano County Airport; however, the proposed new activities do not include new buildings, structures, construction, or uses within the ALUP planning area.

The CDPR proposed activities would not conflict with the Oceano County ALUP because it would not impact aviation patterns, result in a hazard to air navigation, or expose people visiting, living, or working in the HCP area to a safety hazard or excessive noise, nor is it dependent on the height of any proposed structures or vegetation. The HCP does not directly authorize or approve "development" subject to land use or building permits. Future development included as a covered activity under the HCP would be subject to future land use and CEQA approvals.

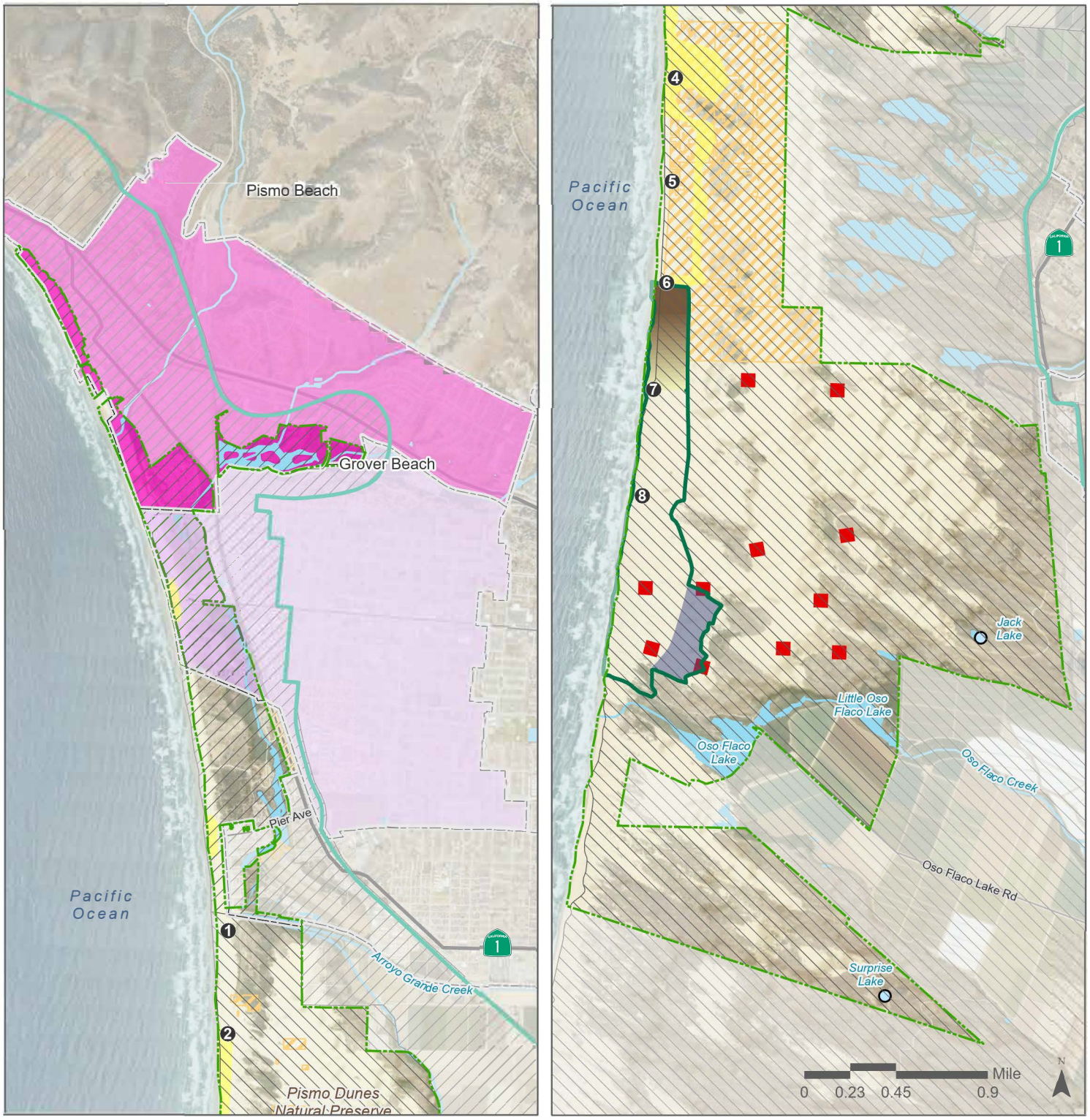
The HCP guides the management and operation of Pismo State Beach and Oceano Dunes SVRA to avoid or minimize impacts to covered species. The proposed new covered activities (SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities [CA-12b], stranded tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], invasive aquatic predator control [CA-17], mechanical trash removal [CA-21], reduction of the Boneyard Exclosure and 6 Exclosure [CA-50], and CDPR's use of UAS [CA-52]) do not include typical structural development of built features in the environment, such as roads, buildings, power lines, or other built structures. The proposed new activities would not change land use or intensity of uses in the HCP area. The proposed new activities would not significantly increase airport-related risks for park visitors or interfere with takeoff, landing, or maneuvering of pilots, nor would it exceed the height of any FAA civil airport surface. CDPR would not operate UAS (CA-52) above 400 feet and would comply with all airport restrictions. Thus, the HCP would not conflict with the Oceano County ALUP, and there would be ***no impact***.

4.4 CUMULATIVE IMPACTS

The proposed new activities of SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), stranded tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], invasive aquatic predator control [CA-17], mechanical trash removal (CA-21), seasonal exclosure boundary changes (East Boneyard Exclosure and 6 Exclosure; CA-50), and CDPR's use of UAS (CA-52) would not conflict with land use plans and policies and they would not combine with impacts from other foreseeable projects listed in EIR section 3.3.3 to incrementally increase land use impacts. None of the projects considered for cumulative impacts would occur in the areas proposed for project activities. These activities would not change the existing land uses within the HCP area or change the intensity of the existing recreational use. The HCP would not conflict with local LCP policies and therefore would not contribute toward potential impacts of future projects that may occur in the HCP area or adjacent communities. For these reasons, the HCP would have ***no cumulative impact*** on land use.

4.5 MITIGATION MEASURES

No significant impacts to land use plans and policies have been identified for the project based on the analysis contained in EIR sections 4.3 and 4.4 above. No mitigation is required.



Local Land Use Boundaries
- City of Grover Beach
- City of Pismo Beach
- La Grande parcels
- Chevron inholdings
- Coastal Zone Boundary

Local Land Use Planning Agencies
- San Luis Bay Coastal Planning Area
- South County Coastal Planning Area

Management Areas
- CA-16 Dune slack wetland restoration (potential site)*
- CA-21 Mechanical trash removal*
- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*
- Boundary of Exclosures (includes shoreline)

Base Map Features
- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

*Approximate location

MIG

May 2026
Source: ESRI 2024; CDPR 2024; SLO County 2024
MIG 2024

Figure 4-1 Local Land Use Planning Areas

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

CHAPTER 5. AIR QUALITY

5.1 REGULATORY SETTING

5.1.1 Regulated Air Pollutants

The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone, carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); PM—which consists of "inhalable coarse" PM (particles with an aerodynamic diameter of 10 microns or less, or PM_{10}) and "fine" PM (particles with an aerodynamic diameter of 2.5 microns or less, or $PM_{2.5}$); and lead. The U.S. EPA refers to these six common pollutants as "criteria" pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally based criteria.

The California Air Resources Board (CARB) has established California Ambient Air Quality Standards (CAAQS) for the six common air pollutants regulated by the federal Clean Air Act), plus the following additional air pollutants: hydrogen sulfide (H_2S), sulfates (SO_X), vinyl chloride, and visibility-reducing particles.

A description of the air pollutants associated with the proposed new activities and its vicinity is provided below. As described in EIR section 5.1.2, PM and ozone are the primary pollutants of concern in southern San Luis Obispo County. The other criteria air pollutants, such as CO, SO_2, SO_X, lead, vinyl chloride, and visibility-reducing particles, are not typically associated with the new covered activities proposed for implementation and are generally not pollutants of concern in southern San Luis Obispo County. Accordingly, ozone, ozone precursors, and PM are the only criteria air pollutants discussed in detail below.

- **Ground-level ozone**, or smog, is not emitted directly into the atmosphere. It is created from chemical reactions between oxides of nitrogen (NO_X) and volatile organic compounds, also called reactive organic gases (ROG), in the presence of sunlight (US EPA 2024). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO_X and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.
- **NO_2** is a by-product of combustion. NO_2 is not directly emitted but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to ozone formation. NO_2 also contributes to the formation of PM. NO_2 can cause breathing difficulties at high concentrations (US EPA 2024).
- **PM** is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (US EPA 2024). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include but are not limited to, increased respiratory symptoms (e.g., irrigation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease. Such health impacts tend to be reported in children (including infants) and older adults with pre-existing heart or lung conditions. Figure 5-1 Particulate Matter provides a graphical depiction of the size of PM_{10} and $PM_{2.5}$.

- PM_{10}, also known as inhalable coarse, respirable, or suspended PM_{10}, consists of particles less than or equal to 10 micrometers in diameter (approximately $1/7^{th}$ the thickness of a human hair). These particles may deposit on the surfaces of larger airways in the lungs, which can lead to tissue damage and lung inflammation. Short-term exposures to elevated PM_{10} concentrations of less than 24 hours have been associated with worsening respiratory diseases (e.g., asthma and chronic obstructive pulmonary disease). Long-term exposure to elevated PM_{10} over months or years may be associated with fatal respiratory issues, although long-term effects are less clear for PM_{10} than for $PM_{2.5}$ (US EPA 2024) (CARB 2024).
- $PM_{2.5}$, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately $1/30^{th}$ the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (US EPA 2024). Short-term exposure to elevated $PM_{2.5}$ concentrations of less than 24-hours have been associated with asthma attacks, acute and chronic bronchitis, increased heart- or lung-related hospital admissions, and premature death. Long-term exposure to elevated $PM_{2.5}$ levels over months or years is linked to reduced lung growth in children and to premature death, especially for individuals with chronic heart or lung diseases.

5.1.1.1 Federal and State Clean Air Acts

The federal Clean Air Act, as amended, provides the overarching basis for both federal and state air pollution prevention, control, and regulation. The Act establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. The U.S. EPA also requires that each state prepare and submit a SIP that consists of background information, rules, technical documentation, and agreements that an individual state will use to attain compliance with the NAAQS within federally imposed deadlines. State and local agencies implement the plans and rules associated with the SIP, but the rules are also federally enforceable. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. In California, both the federal and state Clean Air Acts are administered by CARB. It sets all air quality standards, including emission standards for vehicles, fuels, and consumer goods, as well as monitors air quality and sets control measures for toxic air contaminants. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

5.1.1.2 Interpretation of NAAQS for PM_{10} (24-Hour Standard)

Title 40 of the U.S. Code of Federal Regulations (CFR), Part 50, National Primary and Secondary Ambient Air Quality Standards, Section 50.6, sets forth that the primary and secondary 24-hour NAAQS for PM_{10} are 150 micrograms per cubic meter ($\mu g/m^3$), 24-hour average concentration. The primary and secondary 24-hour NAAQS for PM_{10} are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one, as determined pursuant to Appendix K to Part 50, Interpretation of the NAAQS for Particulate Matter.

Appendix K to 40 CFR Part 50 sets forth the computations used to analyze PM data to determine attainment of the 24-hour PM_{10} NAAQS. Section 1.0 of Appendix K defines several key terms used in the attainment computations, including "daily value," which is the 24-hour average concentration of PM_{10} calculated or measured from midnight to midnight (local time), "exceedance," which is a daily value that is above the level of the 24-hour standard after rounding to the nearest 10 $\mu g/m^3$ (i.e., values ending in 5 or greater are to be rounded up), and "year," which refers to a calendar year.

In general, the amount of monitoring data necessary to demonstrate attainment with the 24-hour NAAQS varies with sampling frequency, data capture rate, and the number of years of record available for review. Section 2.1 of Appendix K describes that, in the simplest case for a PM_{10} attainment determination, the number of expected exceedances at a site is determined by recording the number of exceedances in each calendar year and then averaging them over the past 3 calendar years. This simple case is most similar to the situation in the South County region, since the San Luis Obispo County Air Pollution Control District's (SLOAPCD) monitoring stations in this region (CDF, Mesa2, NRP) currently measure the 24-hour average PM_{10} concentration on a daily basis. Thus, in general, given the current monitoring stations operated by the SLOAPCD and their monitoring frequency (daily), the U.S. EPA could determine nonattainment of the 24-hour PM_{10} NAAQS with three exceedances in a single calendar year, or one exceedance in each of 3 consecutive calendar years. The U.S. EPA may consider more than 3 years of data in an attainment determination if the data is representative and complete.

More complex attainment calculations are used if PM_{10} monitoring is conducted on a less frequent basis (e.g., every other day, every sixth day) as set forth in 40 CFR Part 58. In addition, Appendix K sets forth specific numerical rounding procedures for the computational equations used to determine attainment. Finally, in some cases, there are less stringent data requirements for showing that a monitor has failed an attainment test.[6]

5.1.1.3 Interpretation of NAAQS for $PM_{2.5}$ (24-Hour)

Title 40 of CFR, Part 50, National Primary and Secondary Ambient Air Quality Standards sections 50.13 and 50.20 set forth the primary and secondary 24-hour NAAQS for $PM_{2.5}$ are 35 $\mu g/m^3$, 24-hour average concentration. The primary and secondary 24-hour NAAQS for $PM_{2.5}$ are attained when the 98th percentile 24-hour concentration, as determined pursuant to Appendix N to Part 50, Interpretation of the NAAQS for $PM_{2.5}$, is less than or equal to 35 $\mu g/m^3$.[7]

Appendix N to 40 CFR Part 50 sets forth the computations used to analyze PM data to determine attainment of the 24-hour $PM_{2.5}$ NAAQS. Section 1.0 of Appendix N defines several key terms used in the attainment computations, including daily value (similar to the definition used for

[6] Pursuant to Section 2.3(c), less data may be sufficient if the data unambiguously establishes nonattainment. Appendix K provides the following specific example of how nonattainment may be demonstrated when data fail to meet some requirements: "Nonattainment of the 24-hour primary standards can be established by the observed annual number of exceedances (e.g., four observed exceedances in a single year), or by the estimated number of exceedances derived from the observed number of exceedances and the required number of scheduled samples (e.g., two observed exceedances with every-other-day sampling)."

[7] In general, the 98th percentile represents the value below which 98% of recorded measurement's fall. For example, if there were 365 different daily 24-hour average measurements, the 98th percentile would be the concentration on the day with the eighth highest average $PM_{2.5}$ concentration (365-(0.98*365))=7.3).

PM_{10} attainment); "98th percentile," which is the smallest daily value out of a year of $PM_{2.5}$ mass monitoring data below which no more than 98 percent of all daily values fall using prescribed ranking and selection methods; and "quarter," which refers to a calendar quarter (e.g., January through March). Like PM_{10} (see EIR section 5.1.1.2), the amount of monitoring data necessary to demonstrate attainment with the $PM_{2.5}$ 24-hour NAAQS varies with sampling frequency, data capture rate, and the number of years of record available for review. In general, Appendix N sections 4.2 and 4.5 describe that 3 years of valid annual $PM_{2.5}$ 98th percentile mass concentrations are required to determine attainment of the 24-hour $PM_{2.5}$ NAAQS; however, Appendix N prescribes specific computational methods and equations, as well as rounding procedures, to use in the attainment determination.

5.1.1.4 Interpretation of NAAQS for $PM_{2.5}$ (Annual Average)

Title 40 of CFR, Part 50, National Primary and Secondary Ambient Air Quality Standards, sections 50.13 and 50.20, set forth that the primary and secondary annual average NAAQS for $PM_{2.5}$ are 9.0 $\mu g/m^3$ and 15.0 $\mu g/m^3$, respectively.[8] The primary and secondary NAAQS for $PM_{2.5}$ are attained when the annual average, as determined pursuant to Appendix N to Part 50, Interpretation of the NAAQS for $PM_{2.5}$, is less than or equal to 9.0 $\mu g/m^3$ and 15.0 $\mu g/m^3$, respectively.

Appendix N to 40 CFR Part 50 sets forth the computations used to analyze PM data to determine attainment of the annual average $PM_{2.5}$ NAAQS. In general, Appendix N sections 4.1 and 4.4 describe that 3 years of valid annual average $PM_{2.5}$ concentrations, as computed from quarterly averages, are required to determine attainment of the 24-hour $PM_{2.5}$ NAAQS; however, Appendix N prescribes specific computational methods and equations, as well as rounding procedures, to use in the attainment determination.

5.1.1.5 Interpretation of CAAQS for PM

CCR Title 17, section 70200, Table of Standards, sets forth that the CAAQS for $PM_{2.5}$ and PM_{10} are violated when concentrations exceed the CAAQS (i.e., values may be equaled). Furthermore, 17 CCR § 70301(b) stipulates that the data used for determining attainment designations shall be based on the data for record for 3 calendar years prior to the year in which the designation is made or the annual review of the designation is conducted, while section 70303(a)(1) sets forth that an area will be designated nonattainment for a pollutant if the data for record show at least one violation of a state standard for that pollutant in the area, and the measurement of the violation meets CARB criteria for data representativeness.

5.1.2 Attainment Status

The federal and state governments have established emissions standards and limits for air pollutants that may reasonably be anticipated to endanger public health or welfare. These standards typically take one of two forms: standards or requirements that are applicable to specific types of facilities or equipment (e.g., petroleum refining, metal smelting), or concentration-based standards that are applicable to overall ambient air quality. Air quality conditions are best described and understood in the context of these standards; areas that meet, or

[8] In February 2024, the U.S. EPA lowered the primary annual standard from 12.0 $\mu g/m^3$ (adopted in 2012) to 9.0 $\mu g/m^3$. The revised standard was published in the federal register on March 6, 2024, and took effect on May 6, 2024. The U.S. EPA has up to 2 years to determine the attainment of regions based on the new standard.

attain, concentration-based ambient air quality standards are considered to have levels of pollutants in the ambient air that, based on the latest scientific knowledge, do not endanger public health or welfare.

- **Attainment.** A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are not met, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment (see EIR section 5.1.1). Federal and state laws require nonattainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.
- **Unclassified.** An area is unclassified if the ambient air quality monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Table 5-1 lists the NAAQS and CAAQS and summarizes the South Central Coast Air Basin (SCCAB) attainment status for ozone, PM_{10}, and $PM_{2.5}$. The SCCAB is in attainment or unclassified for all other criteria air pollutants.

Table 5-1. Ambient Air Quality Standards and SCCAB Attainment Status for O_3, PM_{10}, and $PM_{2.5}$

Pollutant	Averaging Time	California AAQS (A)		National AAQS (B)	
		Standard	Attainment Status (C)	Standard	Attainment Status (C)
Ozone	1-Hour	0.09 ppm	**N**	–	–
	8-Hour	0.070 ppm	**N**	0.070 ppm	**N(D)**
PM_{10}	24-Hour	50 µg/m^3	**N**	150 µg/m^3	A
	Annual Average	20 µg/m^3	**N**	–	–
$PM_{2.5}$	24-Hour	–	–	35 µg/m^3	A
	Annual Average	12 µg/m^3	A	9 µg/m^3	U/A

Source: (SLOAPCD 2025c), modified by MIG.

Notes:

(A) California standards for ozone and suspended PM_{10} and $PM_{2.5}$ are values that are not to be exceeded.

(B) Standards shown are the primary NAAQS designed to protect public health.

(C) A= Attainment, N= Nonattainment, U/A=Unclassifiable/Attainment.

(D) This non-attainment designation corresponds to Eastern San Luis Obispo County; Western San Luis Obispo County is in attainment. Specifically, San Luis Obispo County has been designated non-attainment east of the -120.4 deg Longitude line, in areas of San Luis Obispo County that are south of latitude 35.45 degrees, and east of the -120.3 degree Longitude line, in areas of San Luis Obispo County that are north of latitude 35.45 degrees. Oceano Dunes SVRA is in the portion of San Luis Obispo County that is in attainment for federal ozone standards.

(E) The U.S. EPA has not determined regional attainment status for the 2024 $PM_{2.5}$ annual average NAAQS (9.0 µg/m^3); however, the SCCAB is designated as unclassifiable/attainment for the 2012 standard (12.0 µg/m^3).

The SLOAPCD, the local agency charged with preserving air quality, divides San Luis Obispo County into different air quality regions that have similar geologic and meteorological conditions. Oceano Dunes SVRA is located in the South County air quality region of San Luis Obispo County. The SLOAPCD maintains and operates three ambient air quality monitoring stations in the South County Region: CDF, Mesa2, and Nipomo Regional Park (NRP) (SLOAPCD 2023a). These stations measure ambient concentrations of PM_{10} and $PM_{2.5}$.[9]

Of the SLOAPCD's three monitoring stations in the South County Region, CDF[10] is the closest to Oceano Dunes SVRA, approximately 0.5 miles southeast of Oceano Dunes SVRA (as measured in the prevailing wind direction; Figure 5-2 HCP Area and Air Quality Monitoring Stations). The NRP station is the farthest away from Oceano Dunes SVRA, more than 5 miles southeast of the SVRA. Mesa2 is of middle proximity, approximately 2 miles southeast of the SVRA. A fourth South County Region monitoring station, referred to as the Oso Flaco monitoring station, was installed in 2015 in the southeastern-most corner of the Oceano Dunes District boundary and is operated by CDPR with support from SLOAPCD.[11]

Table 5-2 shows the number of days from January 2013 through December 2024 that CDF, Mesa2, NRP, and Oso Flaco monitoring stations measured levels of PM that are above the state's 24-hour standard for PM_{10}, which is set at 50 $\mu g/m^3$. Data available from the Oso Flaco monitoring station, which has been operating for a shorter time period, is also included.

Table 5-2. South County Monitoring Days Above 24-Hour State PM_{10} Standard

Monitoring Year	South County Monitoring Station[A]			
	CDF[B]	Mesa2[B]	NRP[B]	Oso Flaco[C]
2013	93	55	20	–
2014	79	39	9	–
2015	62	30	8	1
2016	71	43	13	10
2017	97	52	18	12
2018	47	39	17	2
2019	51	36	14	6
2020	54	53	20	12
2021	38	37	4	5
2022	48	40	5	6
2023	23	19	2	6
2024	14	16	3	4

[9] CDF, Mesa2, and NRP all measure ambient PM_{10} concentrations. Only CDF and Mesa2 measure ambient concentrations of $PM_{2.5}$; NRP does not.

[10] Although the California Department of Forestry and Fire Protection is commonly referred to as Cal Fire, the monitoring station retains the CDF name.

[11] The Oso Flaco monitor, which monitors PM_{10} but not $PM_{2.5}$, was discontinued in December 2016 and reinstalled in March 2017.

Table 5-2. South County Monitoring Days Above 24-Hour State PM_{10} Standard

Monitoring Year	South County Monitoring Station[A]			
	CDF[B]	Mesa2[B]	NRP[B]	Oso Flaco[C]

Sources: 2013 – 2024 Annual Air Quality Reports, SLOAPCD (2014) through (2025b); CARB (2025a, 2025c, 2025d, CARB 2025e)

Notes:

(A) The state 24-hour PM10 standard is set at 50 µg/m3. The state also maintains an average annual PM10 standard of 20 µg/m3.

(B) Operated by SLOAPCD.

(C) Operated by CDPR, with SLOAPCD support; data collection interrupted December 2016-March 2017.

As shown in Table 5-2, the CDF monitoring station has historically reported more exceedances of the state 24-hour PM_{10} standard than all other South County monitoring stations. There has been a gradual decline in overall exceedances of the state's 24-hour PM_{10} standard at all South County Monitoring stations over the last decade, and the difference between the number of annual exceedances reported at CDF and those reported at other monitoring stations has also narrowed. The reduction in PM_{10} concentrations and exceedances of the state 24-hours standard is largely attributable to the Oceano Dunes SVRA Dust Control Program.

Table 5-3 presents exceedances of federal PM_{10} and $PM_{2.5}$ standards (24-hour and annual) as well as annual state PM_{10} and $PM_{2.5}$ exceedances at the CDF monitoring station.

Table 5-3. Exceedances of Federal PM_{10} and $PM_{2.5}$ Standards and Annual State PM_{10} and $PM_{2.5}$ Standards at the SLOAPCD CDF Monitoring Station

Year	NAAQS			CAAQS		
	24-hour		Annual	24-hour	Annual	
	PM_{10}	$PM_{2.5}$	$PM_{2.5}$[A]	PM_{10}	PM_{10}	$PM_{2.5}$
2013	2	3	**Y**	93	**Y**	**Y**
2014	2	4	**Y**	79	**Y**	**Y**
2015	0	1	N	62	**Y**	N
2016	0	0	N	71	**Y**	N
2017	0	0	**Y**	97	**Y**	**Y**
2018	0	2	N	47	**Y**	N
2019	0	0	N	54	**Y**	N
2020	0	8	N	54	**Y**	N
2021	0	0	N	38	**Y**	N
2022	0	0	N	48	**Y**	N
2023	0	0	N	23	**Y**	No
2024	0	0	N	14	N	N

Source: 2013 – 2024 Annual Air Quality Reports, SLOAPCD (2014) through (2025b); (CARB 2025a); (CARB 2025b).

Notes:

(A) The values in this column reflect exceedances of the 2012 annual $PM_{2.5}$ standard (12 µg/m^3).

As shown in Table 5-3, the 24-hour state standard for PM_{10} has been exceeded more often than the national standard. This is a result of the state standard (50 µg/m^3) being more stringent than the federal standard (150 µg/m^3), by a factor of one-third. In addition, the CAAQS and NAAQS annual $PM_{2.5}$ standard (12 µg/m^3) was exceeded in 2013, 2014, and 2017 but was not exceeded from 2018 through 2024.[12]

5.1.3 San Luis Obispo County Air Pollution Control District

The SLOAPCD has primary responsibility for regulating sources of air pollution situated within its jurisdictional boundaries. To this end, the SLOAPCD implements air quality programs required by state and federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their roles in protecting air quality.

5.1.3.1 2001 Clean Air Plan

In 2001, the SLOAPCD adopted its *2001 Clean Air Plan*. This plan updates the 1998 Clean Air Plan and identifies control measures to reduce ROG and NOx emissions, precursors to ozone, as well as PM emissions. The *2001 Clean Air Plan* identifies the control measures necessary to attain ozone air quality standards. The 2001 Clean Air Plan includes ozone precursor pollutant emissions of ROGs and NO_x from mobile and area-wide emission sources in its reference (1991) and forecasted (2015) emissions inventories, and it plans for achieving attainment of air quality standards. Although some of the control measures set forth for controlling ROG and NOx emissions have a co-benefit of reducing PM emissions, the plan does not identify any control measures solely related to the reductions of PM emissions. As stated in the *2001 Clean Air Plan*, "The District expects to formally address PM_{10} nonattainment in future planning efforts" (SLOAPCD 2001).

5.1.3.2 Rules and Regulations

The following rules and regulations potentially apply to the proposed new activities:

Rule 401,Visible Emissions and Rule 402, Nuisance. Rule 401, Visible Emissions and Rule 402, Nuisance, establish that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 1001, Coastal Dunes Dust Control Requirements. Rule 1001, Coastal Dunes Dust Control Requirements, establishes standards for the operators of coastal dune vehicle activity areas greater than 100 acres in size. Section C of the SLOAPCD Rule 1001 outlines the rule's general requirements, which are:

1) Development and implementation of a Temporary Baseline Monitoring Program to determine existing PM_{10} concentrations at Air Pollution Control Officer (APCO)-approved

[12] Attainment designations for the 2024 annual $PM_{2.5}$ standard (9.0 µg/m^3) will be made using the last three years' worth of ambient air quality data. Table 4 in the SLOAPCD 2024 Annual Air Quality Report shows an annual average $PM_{2.5}$ concentration of 5.43 µg/m^3 at the CDF site, suggesting that the region may be designated attainment for the new 2024 annual $PM_{2.5}$ standard (SLOAPCD 2025b).

Coastal Dune Vehicle Activity Areas and Control Site monitoring locations prior to implementing PM_{10} control measures and Compliance Monitoring.

2) Development and implementation of an APCO-approved Particulate Matter Reduction Plan (PMRP) that contains:
   a) An APCO-approved PM_{10} Compliance Monitoring network consisting of at least one Coastal Dune Vehicle Activity Areas Monitor and at least one Control Site Monitor;
   b) A description of all PM_{10} control measures that would be implemented to comply with the Rule 1001 performance standard (see requirement 3 below);
   c) An APCO-approved track-out prevention program that does not allow track-out of sand to extend 25 feet or more onto, and requires track-out to be removed from, paved public roadways;
3) Compliance with a performance standard that requires PM_{10} concentrations at the APCO-approved Coastal Dune Vehicle Activity Areas Monitor to be no more than 20 percent higher than the PM_{10} concentrations at the APCO-approved Control Site Monitor. The performance standard applies only when the 24-hour average PM_{10} concentrations at the approved Coastal Dune Vehicle Activity Areas Monitor exceeds 55 micrograms per cubic meter.
4) Complete all environmental review requirements and obtain land use agency approval for PMRP projects.

5.1.4 Stipulated Abatement Order, Case No. 17-01

On September 10, 2017, in response to more than 120 complaints received from members of the public between May 2012 and September 2017 regarding unhealthy levels of airborne PM, the SLOAPCD APCO filed a Petition for Abatement Order (Case No. 17-01) with the SLOAPCD Hearing Board against CDPR for violations of California Health and Safety Code Section 41700, SLOAPCD Rule 402, and SLOAPCD Rule 1001 (SLOAPCD 2018b). The Hearing Board considered this petition at a number of meetings from November 13, 2017, to April 30, 2018, and issued a SOA to CDPR on April 30, 2018. In general, the major provisions of this original SOA required CDPR to:

- Take initial PM reduction actions, including:
  - Installation of 74 acres of wind fencing in locations informed by 1930's-era aerial photography that shows where vegetation existed prior to the State of California operating a beach camping and dune recreation area.
  - Installation of sand track-out control devices at the Grand and Pier Avenue entrances to Oceano Dunes SVRA.
- Prepare a PMRP designed to:
  - Achieve the state and federal ambient air quality standards for PM_{10}. The CAAQS and NAAQS are mass concentration-based standards that require measurement and analysis of ambient air to determine compliance with the standard.
  - Reduce maximum 24-hour PM_{10} baseline emissions by 50%. After the issuance of the SOA, baseline emissions conditions were defined as the PM_{10} mass emissions occurring within ODSVRA open riding and camping area, as averaged over the ten windiest days from May 1, 2013, to August 31, 2013. In contrast to the CAAQS and NAAQS, which are mass-concentration-based standards, the original

SOA's requirement to reduce 24-hour PM_{10} baseline emissions by 50% is a mass-emissions-based standard.

- Create a SAG, in coordination with the SLOACPD, to evaluate, assess and provide recommendations on the mitigation of windblown PM_{10} emissions from the Oceano Dunes SVRA and on the development of plans required by the SOA (e.g., the PMRP).Prepare an ARWP that describes the type, location, and effectiveness of dust control measures that will be installed in the coming year or that were installed in the previous year.

On November 18, 2019, the SLOAPCD Hearing Board issued an order to modify the SOA. The major provisions of the first amendment to the SOA required State Parks to:

- Prohibit OHV activity and camping in a 48-acre foredune area located near the center of the Oceano Dunes SVRA shoreline;
- Deploy 40 acres of seasonal dust control measures; and
- Complete 4.2 acres of vegetated dust control measures that were not completed per the requirements of the original SOA.

As required by the original SOA and the first amendment to the SOA, State Parks prepared and received approval for its PMRP in 2019, completed all specific dust control project requirements outlined in the SOA (e.g., 74 acres of wind fencing, 48-acre foredune, etc.), and prepared ARWPs in 2019, 2020, 2021, and 2022. The 2022 ARWP showed that State Parks had continued to make progress towards achieving the SOA's initial target to reduce 24-hour PM_{10} mass emissions by 50%.~~,~~ As stated in the 2022 ARWP, the SOA ~~but not the~~ requirement to achieve the CAAQS and NAAQS for PM_{10} had not been met.

In February 2022, the SAG prepared and submitted a technical memo to State Parks and the SLOAPCD entitled, "Scientific Basis for Possible Revision of the Stipulated Order of Abatement (SOA)," hereafter referred to as the "2022 SAG Memo" (SAG 2022). The purposes of the 2022 SAG Memo were to reexamine the initial baseline PM_{10} mass emissions reduction target established by the SOA and the procedures used to evaluate the effectiveness of the dust control measures installed at the Oceano Dunes SVRA. The 2022 SAG Memo summarized two key findings on the then current SOA:

1) **SOA Target.** In its memo, the SAG summarized (pp. 1-2), "If the management objective is to reduce emissions of PM_{10} from the Oceano Dunes SVRA to a level consistent with dust emissions prior to significance OHV disturbance, then there is a strong scientific justification based on recent modeling for adjusting the PM_{10} emissions reduction target in the SO from the initial 50% reduction to a value of 40.7%." The SAG's recommended target was based on modeling of potential emissions levels for a 1939 "pre-disturbance" emissions scenario. With regards to exceedances of the ambient air quality standards, the SAG concluded (p. 2), "elimination of all California PM_{10} air quality exceedances would likely require a reduction in PM_{10} emissions far below what existed in the 1939 pre-disturbance scenario and would present a formidable engineering and management challenge" (SAG 2022).
2) **PM_{10} Emissions Modeling Framework.** In its memo, the SAG recommended revisions to the methodology used to evaluate the effectiveness of dust control measures installed at the Oceano Dunes SVRA that would incorporate the latest scientific understanding of generation dynamics at the Oceano Dunes SVRA. For example, the SAG recommended

modifying the underlying dune surface emissivity assumptions to reflect the most-recently collected data, as well altering the modifying control effectiveness assumptions for temporary dust control projects such as wind fencing from an assumed effectiveness of 100% to actual, measured effectiveness within such treatments (generally approximately 72% effectiveness).

The SAG's recommended use of the 1939-pre disturbance scenario as the new compliance goal was based on the latest scientific understanding of Oceano Dunes SVRA PM_{10} emissions, including historical pre-OHV conditions (i.e., a time when vegetation cover and dune conditions were more stable, prior to significant human disturbance, providing a conservative baseline for emissions reductions). In October 2022, after considering the SAG's recommendations and State Parks' 2022 ARWP, the SLOAPCD recommended that the SLOAPCD Hearing Board modify SOA 17-01 for a second time. The second amendment to the SOA, which was approved by the SLOAPCD Hearing Board in October 2022, made significant modifications to the key mass emissions and concentration reduction requirements from the original 2018 SOA and the 2019 SOA amendments that had formed the basis for State Parks' Dust Control Program and 2019-2022 ARWP documents. Specifically, the second amendments to the SOA:

- Replaced the requirement to achieve compliance with absolute ambient air quality standards with a new requirement "designed to eliminate emissions in excess of naturally occurring emissions from the Oceano Dunes SVRA that contribute to downwind violations of the state and federal PM10 air quality standards."
- Replaced the requirement to initially reduce maximum 24-hour PM10 baseline emissions by 50% with a new requirement to initially reduce maximum 24-hour PM10 emissions to a level consistent with the pre-disturbance scenario identified by the SAG.
- Required the preparation of ARWPs in 2023 and 2024 and extended the SLOACPD Hearing Board's jurisdiction on the SOA until December 1, 2025 (SLOAPCD 2022c).

Pursuant to the SOA, as amended, State Parks prepared ARWPs in 2023 and 2024. The 2024 ARWP, which received provisional approval from SLOAPCD on September 17, 2024, marked an important milestone for dust control efforts at Oceano Dunes SVRA (CDPR 2024). It specified that the Oceano Dunes SVRA, as modeled and evaluated pursuant to the SOA's "excess emissions framework" was not predicted, as of July 31, 2024, to emit dust at a level in excess of naturally occurring conditions.

In October 2024, after considering State Parks' 2024 ARWP, the SLOAPCD Hearing Board made further minor modifications to SOA #17-01. The third amendments to the SOA:

- Extends the term of the SOA and the Hearing Board's jurisdiction from December 1, 2025, to December 1, 2028.
- Approves a final excess emissions goal (see Section 5.2.4) and requires ARWPs to be prepared in 2025, 2026, 2027, and 2028 that document progress made in achieving and maintaining that goal.
- Requires State Parks to obtain Hearing Board approval that the SOA's excess emissions goal has been met by October 16, 2028.

State Parks submitted its 2025 Draft ARWP to the SLOAPCD for review on August 15, 2025. The modeling conducted for the 2025 ARWP shows that Oceano Dunes SVRA is not in a condition of excess emissions as of July 31, 2025.

Refer to Section 5.2.4 for a more detailed discussion of the SOA's current excess emissions framework and a summary of the modeling conducted in the 2024 and 2025 ARWPs.

5.2 ENVIRONMENTAL SETTING

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality. The HCP area is located along the central coast of California, within the SCCAB. The SCCAB encompasses all of San Luis Obispo, Santa Barbara, and Ventura counties (approximately 8,000 square miles) and is bounded on the west and south by the Pacific Ocean. The SLOAPCD is the primary agency responsible for monitoring and maintaining air quality in the portion of the SCCAB where the project area is located, which is southwestern San Luis Obispo County.

5.2.1 Topography and Meteorology

Topography and climate throughout the SCCAB vary and are influenced by the basin's proximity to the Pacific Ocean and the Coast and Transverse ranges that trend in a general northwest-southeast and east-west orientation, respectively, within the basin. The SCCAB experiences a Mediterranean-type climate that is characterized by warm, dry summers and cool, wet winters. The north Pacific high-pressure system, a semi-permanent area of high pressure centered over the north Pacific Ocean, pushes storms to the north during the summer. During the winter, the pressure center moves south, bringing rain and cooler temperatures.

Near the coast, onshore breezes moderate summer and winter temperatures. Average maximum temperatures in the summer are typically in the 60s and 70s; average minimum temperatures in winter are typically in the 40s and 50s. Precipitation near the coast averages between 15 and 25 inches per year. The Coast and Transverse ranges that run through the basin serve to keep inland portions of the SCCAB warmer and dryer. Although average minimum temperatures in inland areas also typically range from the 40s to 50s, average maximum temperatures are in the high 70s, and daily maximums can exceed 100 degrees Fahrenheit. Precipitation in inland portions of the SCCAB averages less than 15 inches per year.

5.2.2 Prevailing Winds, Saltation, and Dust Generation at Oceano Dunes SVRA

Oceano Dunes SVRA is situated in the Guadalupe-Nipomo Dunes Complex, an approximately 20,000-acre, 18-mile-long coastal dune landscape that contains large, vegetated and unvegetated sand dunes subject to strong prevailing winds. According to the California Geological Survey, Oceano Dunes SVRA is located within the youngest, most active formations of the dune complex, where winds transport sand and dunes are actively migrating inland several feet per year (CGS 2007). The dunes, including the area in which Oceano Dunes SVRA is located, are exposed to strong and frequent prevailing winds from the northwest (i.e., blowing towards the southeast), especially during the springtime (approximately March through June) (SLOAPCD 2007). These strong prevailing winds exert a force on the surface of the dunes that causes particles to move along the ground surface. This movement can take the form of sand creep, where sand grains are pushed along the ground surface, or saltation, in which sand grains are lifted by the wind, carried a short distance (generally a few inches to a few feet), and then fall back down to the ground surface. These processes can cause some particles to become suspended in the air and carried away downwind.

The saltation process is depicted in Figure 5-3 Saltation and Dust Generation Process. Generally, when winds exceed approximately 10 miles per hour, the sand grains in the unvegetated dunes that naturally form in the Guadalupe-Nipomo Dunes Complex begin to creep or saltate and generate dust and PM that can affect air quality conditions.

5.2.3 Dust and PM Studies at Oceano Dunes SVRA

Windblown dust in southwestern San Luis Obispo County has been an issue of focused public concern and academic study for almost two decades. The SLOAPCD, CDPR, the SAG, and other entities have completed many studies that have examined the different factors that affect the amount of dust and PM emissions generated at Oceano Dunes SVRA, how such emissions are transported, or dispersed, downwind of Oceano Dunes SVRA, and what other sources of dust and PM may contribute to air quality conditions. In 2023, the SAG independently prepared its "Oceano Dunes: State of the Science" report (SAG 2023). The purpose of this report was to, "synthesize existing publicly available white paper, reports, studies, publications, and other materials relevant to understanding the dust problem at [Oceano Dunes SVRA] and related dust mitigation efforts." This SAG report did not present any new findings regarding the Oceano Dunes SVRA Dust Control Program. Rather, the report succinctly describes, based on a review of more than 100 studies, reports, and other documents, the latest scientific information regarding seven key dust control topics, as follows: 1) Geology and history of Oceano Dunes; 2) Dust Emissions; 3) Dust Controls; 4) Vegetation Restoration; 5) Restoration and Coastal Foredunes; 6) Modeling; and 7) Air Quality.

The SAG's 2023 State of the Science report is incorporated by reference into this Recirculated Draft EIR in full.[13] Below is a brief overview of the information summarized and referenced in the SAG's State of the Science report.

1) **Geology and History of the Oceano Dunes.** The SAG's State of the Science report describes the windblown and coastal processes that generally affect dune formation and evolution, the SVRA's location within the Callender Dune sheet and the larger Guadalupe-Nipomo Dunes complex (also known as the Santa Maria Valley dune complex), the sediment characteristics of and dune types found in the Gaudalupe-Nipomo Dunes complex and Oceano Dunes SVRA, and the influence that these processes have on PM emissions on the Nipomo Mesa. The report also summarizes how certain human activities, including the planting of non-native vegetation and the introduction of recreational activities, particularly vehicular recreation activities, have impacted vegetation cover and dune form at Ocean Dunes SVRA. This summary is largely based on the results of a study that used aerial imagery to track changes in vegetation cover at Oceano Dunes SVRA from the 1930s to 2020, finding that dune areas with the most intensive vehicular recreation use (e.g., foredune and near shore areas inside the open riding and camping area) have seen significant declines in plant cover even though total vegetation cover at Oceano Dunes SVRA has increased since the SVRA was established in 1982. The report acknowledges that Oceano Dunes SVRA's dune surfaces are naturally emissive, but that (p. 106): "it is unknown how emissive dune surfaces were

[13] This Recirculated Draft EIR incorporates by reference the entirety of the SAG's Oceano Dunes: State of the Science report in a manner consistent with CEQA Guidelines Section 15150. The physical and digital locations where the SAG's 2023 report may be reviewed are: Oceano Dunes District, 340 James Way, Suite 270, Pismo Beach, CA 93449; and https://www.slocleanair.org/air-quality/oceano-dunes-efforts.php

prior to establishment of the park, or even before widespread use of vehicles in the dunes." Given this uncertainty, the SAG report identified the need to develop a pre-disturbance reference state, based on 1939 vegetation cover conditions, to estimate what dust emissions levels were prior to vehicle disturbance in the dunes and to quantify and understand progress made towards SOA goals. This recommendation formed the basis for the October 2022 SOA amendments.

2) **Dust Emissions.** The SAG's State of the Science Report explains that PM_{10} emissions from dunes are a mix of mineral dust (i.e., dust composed of earth minerals), organic matter, sea salt aerosol, and other materials, with the saltation process (see Figure 5-3) being the primary underlying process by which these emissions are generated. Factors such as particle size, soil moisture, and sand surface roughness (e.g., sand ripples, vegetation, etc.) are all key characteristics that affect saltation and resulting dust emissivity. In addition, the meteorological conditions at Oceano Dunes SVRA provide insight into how often and under what conditions dust emissions are dispersed inland. At Oceano Dunes SVRA, these physical properties have been studied using a variety of instrumentation and technologies, including, but not limited to: laser particle analysis, x-ray fluorescence, x-ray diffraction, scanning electron microscopy, Unmanned Aerial Systems (UAS), the Portable In-Situ Wind Erosion Laboratory (PI-SWERL®), and meteorological instruments. The PI-SWERL instrument in particular has been used to measure rates of emissivity at Oceano Dunes SVRA since 2011, and wind patterns within the Oceano Dunes SVRA have been determined to be dominated by west-northwest prevailing onshore flow, with the strongest winds typically occurring during spring and early summer months. Finally, the report highlights that human activities have the capacity to affect dust emissions, particularly through land use changes and vehicular activity, stating (p. 23), "For example, the mechanical action of vehicle tires can turn over the surface layer of dunes, potentially increasing saltation and dust emissivity by bringing fine particles to the surface (i.e., changing particle size distribution) or breaking up the surfaces themselves. In addition, intensive use can inhibit the growth of new vegetation or even destroy existing vegetation." The report summarizes the results of a Desert Research Institute (DRI) study during the temporary closure of the Oceano Dunes SVRA in 2020 that demonstrated a reduction in emissivity and PM_{10} concentrations more rapidly than anticipated, even if the specific mechanisms by which vehicles may enhance PM_{10} emissions remain poorly understood by the SAG. This DRI study described the results of an emissivity distribution study (based on data from 2013 to 2019) which indicated higher emissivity in riding areas compared with non-riding areas. This study also showed a difference in emissivity between geographic locations in the Oceano Dunes SVRA, with higher emissivity in the north compared to the south. The DRI report described the results of a survey repeated in 2020 (when the SVRA was closed), which indicated emissivity measurements were lower in 2020 compared with the 2013 to 2019 emissivity measurements. Regarding the effects of OHV activity on emissions, the DRI report showed that during the five months of monitoring, the monthly change in PM_{10} as a function of wind power density decreased by 11.6% after OHV activity had stopped (Gillies 2022).

3) **Dust Controls.** The SAG's State of the Science Report describes four different methods of dust control that have been used at Oceano Dunes SVRA: 1) restricting vehicle activity; 2) installation of roughness elements such as straw bales, wind fencing, and vegetation; 3) covering bare sand surfaces with a layer of straw mulch, and 4) applying a

topical application / amendment that enhances particle cohesion. Of these measures, only vegetation is considered a permanent form of dust control; however, factors such as cost, labor, and plant availability require CDPR to employ temporary controls such as wind fencing in addition to vegetation. The report describes that the overall approach of CDPR and the SAG has been to implement the most effective methods of dust control in areas where modeling shows they will have the greatest effect on reducing PM_{10} emissions, a process outlined in each State Parks' ARWP.

4) **Vegetation Restoration.** The SAG's State of the Science Report describes both natural and manmade vegetation restoration processes and includes reference to a generalized model for identifying factors that may be evaluated for vegetation restoration efforts, such as physical and chemical conditions, species composition, structural diversity, and potential threats. The report then details how these factors affect strategies for implementing vegetation restoration efforts at Oceano Dunes SVRA, noting factors that may limit the success of restoration efforts include seasonal rainfall patterns, wind-driven burial of vegetation, and disturbance by recreation. Finally, the report highlights principles of CDPR's vegetation restoration program, both in foredune and back dune areas, including the use of monitoring, modeling, and other methods for evaluating restoration success, including efforts documented in each ARWP.

5) **Restoration of Coastal Foredunes.** The SAG's State of the Science Report includes general discussions on the restoration of coastal dunes with particular emphasis placed on foredunes. The report summarizes an analysis of aerial imagery from the 1930s to 2020 that found foredune (as well as backdune) vegetation ecosystems have been impacted by vehicle activity, with plant cover in the open riding and camping area having declined from 12% in 1966 to 4% in 1985 and from 5% to 1% in the foredune zone during those same years, although total vegetation has since increased due to planting efforts in others of the park. The report also identifies that PI-SWERL tests at Oceano Dunes SVRA have indicated that the foredune zone in the riding area was among the most emissive surfaces within the Oceano Dunes SVRA. In 2019, as required by the SOA, CDPR implemented a 48-acre foredune restoration project with five different vegetation restoration treatment types and a control site to evaluate restoration methods. The report describes in detail the methods and relevant background science associated with how this foredune restoration area was developed, surveyed, and the success of various types of treatment, which has also been reported in each ARWP.

6) **Modeling of Particulate Matter Emission and Dispersion in the Atmosphere.** The SAG's State of the Science Report describes that it is scientifically challenging to understand dust emissions from sand dunes as well as control mechanisms on those dust emissions. The report describes the pros and cons of various dispersion modeling frameworks, identifying the Lagrangian Stochastic Particle Dispersion Model (LSPDM) as the modeling approach preferred for the Oceano Dunes SVRA. As the SOA has and continues to require substantial reductions in PM_{10} emissions from dust control measures installed at Oceano Dunes SVRA, the report notes the importance of determining optimal locations for such controls to make progress towards the SOA's goals. The report identifies that the emissivity, meteorological, and other inputs used to model PM_{10} emissions from Oceano Dunes SVRA have shown good agreement with actual measured values at the SLOAPCD's CDF and Mesa2 monitoring stations, indicating that modeling is a useful and efficient to study the efficacy of the Oceano Dunes SVRA Dust Control.

7) **Air Quality.** The SAG's State of the Science Report describes studies that have assessed the quantity of PM_{10} collected at CDF and Mesa2, the chemical nature, or speciation, of the PM collected downwind of the Oceano Dunes SVRA, the role of vehicle activity on dust emissions and air quality, and how dust control measures at Oceano Dunes SVRA have affected air quality. In particular, the report summarizes a series of studies conducted by Scripps Institute of Oceanography that examined the potential contribution of $PM_{2.5}$ from sea salt, mineral dust, organic matter, and other sources. The Scripps studies concluded that the methodology used to quantify $PM_{2.5}$ levels at the SLOACPD's CDF monitoring station may be overestimating mineral dust mass, and that mineral dust may account for less than half of emitted $PM_{2.5}$ from the area upwind of the CDF station. This conclusion indicates that sea salt, organic material (presumably not from Oceano Dunes SVRA), and other sources may be partly responsible for the elevated PM_{10} levels measured at the SLOAPCD's CDF and Mesa2 monitoring stations. While the SAG has considered the Scripps studies in its assessment and understanding of the dynamics of dust generation at the Oceano Dunes SVRA, the SAG and the SLOAPCD have disputed multiple aspects of the Scripps studies.[14]

5.2.4 Oceano Dunes SVRA 2024 and 2025 Annual Report and Work Plans (ARWP)

As described in Section 5.1.4, State Parks' progress towards achieving compliance with SOA requirements is documented on an annual basis by the preparation of an ARWP. CDPR's most recent approved ARWP is its 2024 ARWP, which was approved by the SLOAPCD in October 2024. In addition, in August 2025, CDPR submitted a draft of its 2025 ARWP to the SLOAPCD for review and approval. CDPR's 2024 and 2025 ARWP documents are incorporated in full by reference into this EIR.[15] A summary of the key information in the 2024 and 2025 ARWPs is provided below.

5.2.4.1 Dust Control Measures Installed at Oceano Dunes SVRA

Section 2.1 of CDPR's 2025 ARWP summarizes the dust control measures installed at Oceano Dunes SVRA. As of July 31, 2025, CDPR actively manages and maintains 40 different dust control projects. In total, these 40 dust control projects, plus the temporarily closed "plover exclosure"[16] area and seasonally closed foredune beach and transportation corridor areas, occupy 740.1 acres of land at the Oceano Dunes SVRA, most of which (approximately 664 acres) are located inside the SVRA's open riding and camping area.

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[14] In 2023, DRI published a peer-reviewed study that evaluated PM_{10} collected at the CDF air quality monitoring station (Wang, et al. 2023). The study concluded that mineral dust from wind driven saltation and dust emission processes within Oceano Dunes SVRA during the study period were a consequential contributor to measured PM_{10} concentrations at CDF on days when the 24-hour average PM_{10} concentration exceeded the CAAQS of 50 $\mu g/m^3$.

[15] This Recirculated Draft EIR incorporates by reference the entirety of CDPR's 2024 and draft 2025 ARWP documents in a manner consistent with CEQA Guidelines Section 15150. The physical and digital locations where the 2024 ARWP may be reviewed are: Oceano Dunes District, 340 James Way, Suite 270, Pismo Beach, CA 93449; and https://www.slocleanair.org/air-quality/oceano-dunes-efforts.php

[16] The excess emissions modeling conducted for the ARWP generally uses the term "plover exclosure" to refer to the geographic area totaling approximately 300 acres and comprising the 6, 7, 8, and Boneyard Exclosures that are fenced and closed to entry during the SNPL and CTLE breeding season (March 1 to September 30). To be consistent with the ARWP, on which some of the information in this Air Quality chapter is derived, the term plover exclosure is used when discussing setting information and impact analyses related to air quality.

5.2.4.2 Excess Emissions Model

Section 2.3.2 of CDPR's 2024 ARWP provides background information on the SOA's excess emissions model development. Under the excess emissions framework, the modeled emissions generated by the current Oceano Dunes SVRA landscape, including dust control measures, are compared against the modeled emissions for the most up-to-date pre-disturbance scenario that represents naturally occurring emissions from the Oceano Dunes SVRA.

For each modeled scenario, the Oceano Dunes SVRA is divided into three main management zones (Riding Area, Non-Riding Area, and Other/Special) and nine regions that were developed based on an extensive statistical analysis of PI-SWERL data collected between 2013 and 2024.[17] Each sub-region, therefore, has a different potential to emit dust under both modeled scenarios. The pre-disturbance scenario, which generally reflects vegetation conditions in 1939, includes the following one management zone and three subregions: Non-Riding Area North, Non-Riding Area Central, and Non-Riding Area South. The current landscape scenario includes this zone and its subregions, as well as Riding Area and Other/Special management zones. The Riding Area zone consists of north and south subregions, while the Other/Special zone consists of the plover exclosure, seasonal beach and foredune transportation corridors, the 48-acre foredune restoration area, vegetation islands, and revegetated areas (i.e., dust control projects). Refer to Figure 5-4 Oceano Dunes SVRA Modeled Emissivity Zones for the geographic extent of the nine subregions used to model pre-disturbance and current emissions from the Oceano Dunes SVRA.

The 2024 and 2025 ARWPs' reported excess emissions model results for the pre-disturbance scenario and the current landscape) scenario are summarized in Table 5-4.

Table 5-4. Summary of ARWP Reported Excess Emissions Model Results

Excess Emissions Model Scenario	Reported PM_{10} Emissions Levels (Metric Tons per Day)	
	July 31, 2024 (2024 ARWP)	August 15, 2025 (Draft 2025 ARWP)
Pre-Disturbance Scenario	166	135.2
Current Landscape	148	122.5
Current Landscape is in Excess of Pre-Disturbance Landscape?	No	No

Source: CDPR (2024, 2025a)

As shown in Table 5-4, the excess emissions modeling conducted for the 2024 and 2025 ARWPs indicates that current landscape emissions were not in excess of estimated 2024 and 2025 pre-disturbance landscape emissions. Thus, the results of the modeling indicated Oceano Dunes SVRA is in compliance with the SOA, as amended.

The excess emissions modeling conducted for the 2024 and 2025 ARWP are based on field data collected through 2024. Thus, the modeling reflects both past and current physical conditions within Oceano Dunes SVRA, including the plover exclosure. As noted previously, the plover exclosure had been temporarily closed to recreation since October 2021, and both the 2024 and

[17] The 2024 ARWP is based on analysis of PI-SWERL data collected between 2013 and 2022; the 2025 ARWP incorporates the latest PI-SWERL data collected through the end of 2024.

2025 ARWPs identify the plover exclosure as one of the lowest emitting zones within the excess emissions model. Studies have shown that, while surface emissivity at Oceano Dunes SVRA has varied over time, surface emissivity has, in general, decreased since 2013 (the initial PI-SWERL data set included in the excess emissions model). Nonetheless, the closed status of the plover exclosure for ARWP modeling purposes is inconsistent with this EIR's defined baseline conditions (see Section 3.1), which assume the plover exclosure is open to recreation on a seasonal basis (from October 1 to February 28) consistent with actual past use. Accordingly, for the purposes of this EIR, CDRP has coordinated with the DRI to adjust the SAG-endorsed 2025 ARWP excess emissions model to reflect SAG-developed emissivity relations for a seasonal recreation status for the plover exclosure. This adjustment is based on the latest scientific evidence regarding surface emissivity conditions in areas that are open to OHV recreation on a seasonal basis. The adjustment in assumed emissivity relations for the plover exclosure – i.e., changing from current model conditions that include closure since October 2021 to a seasonal model condition that approximates February 2020 conditions – results in an increase in emissions from this modeled zone of approximately 14.2 metric tons per day and would result in current landscape emissions that are higher than pre-disturbance landscape emissions. Table 5-5 compares reported draft 2025 ARWP excess emissions against modeled EIR baseline condition excess emissions.

Table 5-5: Comparison of Draft 2025 ARWP and EIR Baseline Excess Emissions Model Results

Excess Emissions Model Scenario	PM_{10} Excess Emissions Estimates (Metric Tons Per Day)	
	Draft ARWP Report (Current Conditions as of August 15, 2025)	EIR Baseline (Approximating February 2020)
Pre-Disturbance Scenario	135.2	—(A)
Current Landscape	122.5	136.8
Current Landscape is in Excess of Pre-Disturbance Landscape?	No	Yes

Source: (CDPR 2025a, DRI 2025)

Notes:

(A) The EIR baseline does not change the pre-disturbance model contained in the 2025 Draft ARWP.

Note that the EIR baseline modeling scenario presented in Table 5-5 is an approximation only; however, this estimate is based on the latest scientific evidence collected at Oceano Dunes SVRA, as described in detail in the 2024 and 2025 ARWP documents that are incorporated by reference into this EIR. The SOA's current excess emissions model framework was not in effect in February 2020; therefore, it is not possible to compare EIR baseline conditions against a 2020 estimate of pre-disturbance excess emissions levels. The comparison of EIR baseline against current 2025 pre-disturbance conditions is intended to provide a meaningful, informed analysis of the potential impacts associated with HCP covered activities. The estimated EIR PM_{10} baseline emissions levels (136.8 metric tons per day) is less than the 2024 pre-disturbance emissions level (166 metric tons per day) and the SOA's 2013 baseline emissions metric (182 metric tons per day) that would have been used to assess SOA compliance in February 2020. As outlined in Chapter 3 of the 2025 ARWP, CDPR, the SAG, and the SLOAPCD will continue to refine the excess emissions model and conduct the long-term monitoring of surface emissivity

and PM_{10}- emissions that is essential for determining the success of dust mitigation efforts and gauging progress towards the SOA objectives.

5.2.5 Air Quality Sensitive Receptors

Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. A sensitive receptor is generically defined as a location where human populations, especially children, seniors, and sick persons, are located where there is reasonable expectation of continuous human exposure to air pollutants. These typically include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). For the purposes of this EIR, sensitive receptors include the residences on and around the Nipomo Mesa, downwind of Oceano Dunes SVRA, and schools including, but not limited to Lopez Continuation High School, Mesa Middle School, and Lange (Dorothea) Elementary School.

5.3 PROJECT IMPACTS

5.3.1 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, CDPR's proposed new activities would have a significant air quality impact if it would:

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

The proposed new activities would not conflict with or obstruct implementation of the SLOAPCD *2001 Clean Air Plan*. The proposed new activities would not result in changes to park visitation or vehicle use levels and are therefore consistent with the growth assumptions and emission-generating characteristics and assumptions used by the SLOAPCD to forecast emissions in the *2001 Clean Air Plan*, as well as the measures and strategies identified to reduce emissions. In addition, there are no control measures applicable to the actions proposed in this EIR. Thus, the project would not conflict with or obstruct implementation of the SLOAPCD 2001 *Clean Air Plan*. Accordingly, the impact of new project activities on an applicable air quality plan is not discussed further in this EIR.

Many of the operational activities included in the HCP are existing and ongoing and, therefore, are considered part of baseline conditions for this project. As such, the continuation of these operational activities would not result in a physical change to the environment that requires evaluation. Furthermore, the following proposed changes to Park operations would not have the potential to result in air quality impacts:

- SNPL/CLTE Management (CA-12b), Tidewater Goby and Salmonid Surveys (CA-13), and Monitoring and Management for Listed Herpetological Resources (CA-14) would generally involve collection, transfer, and rearing of SNPL chicks, rescue and relocation of tidewater goby, and baseline herpetological data collection surveys. While these activities would result in a small increase (less than 50 total trips per year) in CDPR staff

and contractor on-road vehicle trips (e.g., for new herpetological surveys), isolated and intermittent on-road vehicle travel already occurs at Oceano Dunes SVRA. CA-12b, CA-13, and CA-14 would not have the potential to change the emissivity of dunes surfaces and would not involve new or expanded use of heavy equipment operations. These activities, therefore, would not result in a significant increase in non-attainment pollutants or other emissions such as odors that could adversely affect a substantial number of people. Accordingly, air quality impacts associated with CA-12b, CA-13, and CA-14 are not discussed further in this EIR.

- Habitat Restoration Program (CA-16) and Invasive Plant and Animal Control (CA-17) would generally involve vegetation removal, habitat restoration, and predator management/removal of invasive species. CDPR would restore at least 0.75 acres of dune slack wetland and temporarily disturb up to 4 acres of upland habitat associated with Surprise Lake and/or Jack Lake, in the southeastern part of the SVRA. These activities would result in a small increase (less than 50 total trips during initial restoration activities and less than 20 trips per year thereafter) in CDPR staff and contractor on-road vehicle trips (e.g., for new material deliveries, predator management activities, etc.). In addition, CDPR's vegetation removal, habitat restoration, and predator management/invasive species removal activities could require the use of heavy equipment if work cannot be performed with hand tools. Habitat restoration and invasive plant and animal control would occur in the southeast part of the SVRA, in and near vegetated dunes. While CA-16 and CA-17 would result in a small increase in CDPR staff and contractor on-road vehicle trips (e.g., for restoration and species management work) and use of heavy equipment on up to approximately 0.75-acres of dune slack wetland and up to 4 acres of nearby upland habitat, isolated and intermittent on-road vehicle travel and intermittent heavy equipment operations already occur at Oceano Dunes SVRA. These activities would not have the potential to change the emissivity of dune surfaces and would not involve substantial new or expanded use of heavy equipment operations. These activities, therefore, would not result in a significant increase in non-attainment pollutants or other emissions such as odors that could adversely affect a substantial number of people. Accordingly, air quality impacts associated with CA-16 and CA-17 are not discussed further in this EIR.
- Under CA-21 (General Facilities Maintenance), CDPR would add mechanical trash removal to its facility maintenance operations. The primary goal of this activity is to improve the safety of visitors and wildlife by removing litter and debris. Mechanical trash removal would focus on a narrow (200- to 300-foot-wide), approximately 140-acre band running from Grand Avenue to Post 6, with treatment potentially occurring in other locations pending resource staff review. Although the total area targeted for treatment is roughly 140 acres, the maximum amount of area treated per day could be as high as approximately 24 acres. Some areas may be treated several times a month during a busy season, whereas others only once or twice a year, if at all. Treatments would likely take place in beach areas experiencing higher visitation, since there is a greater potential for anthropogenic material (e.g., charcoal, beach toys, wood, etc.) to be left behind at these locations. In general, all mechanical trash removal would occur in either the Non-Riding Area Central (pre-disturbance condition) or Riding Area Central-North, Riding Area Central-South, Seasonal Exclosure, and/or Plover Exclosure (2024 landscape condition) emissivity zones and subregions developed for the excess emissions modeling used to evaluate compliance with SOA 17-01.

Mechanical trash removal would involve the use of a tractor-towed rake to collect nails, broken glass, and other debris that may pose a hazard to visitors or wildlife from open sand areas. The raking action would actively disturb the surface of the sand and remove debris and organic material from the top approximately 2 to 6 inches of the sand surface. The physical process of raking the sand would create microtopographic changes in dune surfaces that are likely to be similar to that caused by existing recreational and maintenance activities. Areas of higher visitation are already subject to higher disturbance associated with recreational and maintenance activities and therefore, the effects of mechanical trash removal activities in terms of active dune surface disturbance would be similar to current, existing conditions. Any microtopographic changes that could alter emissivity characteristics of the raked area would likely be short-lived because OHV activity, camping, and/or park maintenance activities that result in travel over the sand would quickly return the dune surface to its existing conditions prior to the mechanical trash removal.

In May 2024, DRI conducted a study, based on a SAG-recommended methodology, to evaluate whether mechanical beach raking could result in a measurable change in surface emissivity. The study identified two areas of the beach that were exposed to OHV activity, one that was raked and one that was not raked, as well as a control area in the Pismo Dunes Natural Preserve that was not raked or exposed to OHV activity. PI-SWERL measurements were taken to estimate emissivity of the three areas before raking, 24 hours after raking, and 10 days after raking occurred. In August 2024, DRI issued a report that discussed the results of the study and concluded that mechanical raking had no demonstrable effect on emissivity 10 days after raking (DRI 2024). DRI also reported it was reasonable to assume that month-long periods between raking activities would not have any cumulative effect on emissivity. The SAG reviewed and concurred with the findings of DRI's report in August 2024. Therefore, based on the results of this study, the mechanical beach raking activities proposed under CA-21 would not have the potential to change surface emissivity or generate dust in a manner that adversely affects ambient air quality and causes or contributes to existing or projected violations of the NAAQS and/or CAAQS. Accordingly, air quality impacts associated with CA-21 are not discussed further in this EIR.

- UAS for Park Activities (CA-52) would require the use of equipment powered by an electric motor. Though there may be some embedded, indirect emissions associated with electricity consumption of the UAS, these emissions would be nominal and occur off site. As such, air quality impacts associated with CA-52 are not discussed further in this EIR.

The proposed new project activities do not include activities or project components that would create objectionable odors. The proposed mechanical trash removal activity (CA-21) may result in odors associated with fuel combustion needed to power the vehicle. This equipment would be mobile and generally located in areas of the SVRA away from sensitive receptor locations. Odors at this distance would readily disperse, and any effects on transient receptors (e.g., OHV riders or campers in the SVRA) would be temporary and short in duration. No odor impact would occur. Therefore, odor impacts are not discussed further in this EIR.

For the reasons described above, the discussion of the proposed project's potential to result in air quality impacts is limited to potential physical changes associated with new CA-50 (Reduction of the Boneyard Exclosure and 6 Exclosures.

5.3.2 Cumulatively Considerable Net Increase of Criteria Air Pollutants and Exposure of Sensitive Receptors to Substantial Pollutant Concentrations

The reduction of the East Boneyard Exclosure and 6 Exclosure (CA-50) could change dune surface emissivity in areas where these activities occur. An increase in emissions of PM_{10} from dune surfaces attributable to CA-50 could result in higher PM_{10} concentrations downwind of Oceano Dunes SVRA, potentially leading to changes in the number of CAAQS and/or NAAQS exceedances at SLOAPCD monitoring stations, namely CDF and Mesa2.

Under CA-50, CDPR would increase the amount of time that OHV recreation is permitted to occur in two areas of the SVRA from approximately five months of seasonal recreation to full, year-round recreation. The East Boneyard Exclosure and 6 Exclosure are two areas within the larger seasonal nesting exclosure[18] that are approximately 47 and 62 acres in size, respectively. Combined, the two exclosures (approximately 109 acres) represent less than 10 percent of the open riding and camping area (1,138 acres). Both exclosures are located in the "Non-Riding Area Central" (pre-disturbance scenario) and "Plover Exclosure" (2025 landscape scenario) emissivity zones developed for the excess emissions modeling used to evaluate compliance with SOA 17-01. Under the HCP, CDPR would gradually transition the 6 Exclosure from temporary to year-round OHV recreation, assumed to average approximately 7.5 acres per year, as long as specific biological criteria (see HCP section 5.2.3) and operational and regulatory considerations are met,[19] until the full 6 Exclosure (approximately 62 aces) is transitioned. In contrast, during the first year of HCP implementation, the East Boneyard Exclosure would be fully eliminated (i.e., the full 47 acres would be available for year-round riding). CDPR estimates that, if all biological criteria and other regulatory requirements are met (e.g., compliance with SOA 17-01), up to approximately 109[20] acres of the plover exclosure could be transitioned from seasonal to year-round recreation under the HCP.

Although the Boneyard Exclosure and 6 Exclosure are areas already open to OHV recreation on a seasonal basis (from October 1 through February 28), the transition from seasonal to year-round OHV recreation would increase the total amount of OHV recreation in these areas. As

[18] A seasonal exclosure is an area of Oceano Dunes SVRA that is fenced off during the breeding season of the CLTE and SNPL, March 1 through September 30. The remaining portion of the year (i.e., October 1 to the end of February), these areas are open to riding. When appropriate to improve habitat quality within the exclosure for CLTE and SNPL, CDPR imports wrack, wood chips, and other suitable material and disperses it within the 6, 7, and 8 Exclosure areas. Wrack consists of kelp, driftwood, and other organic materials (see HCP section 2.2.2.1.2).

[19] Though CDPR proposes incremental reductions of the 6 Exclosure, it is unclear at this time if CDPR would proceed with the reductions in a north-to-south manner or in an east-to-west manner. For the purposes of this EIR's analysis, reduction of the 6 Exclosure in a north-to-south manner is assumed to be a worst-case scenario because the northern parts of the 6 exclosure are more directly located upwind of the CDF monitoring station. The return to seasonal exclosure operation (baseline) and extent of exclosure reduction is contingent upon meeting HCP conservation targets for SNPL and CLTE and regulatory program requirements at the park.

[20] For the purposes of this EIR air quality analysis, CDPR proposes the incremental transition of the 6 Exclosure and the full transition of the East Boneyard Exclosure under the HCP. This would result in up to approximately 7.5 acres of the 6 Exclosure and 47 acres of the East Boneyard exclosure transitioning from seasonal recreation to year-round OHV recreation in any given year (approximately 55 acres in total). In total, this EIR assumes up to approximately 62 acres of the 6 Exclosure and 47 acres of the East Boneyard Exclosure would transition from seasonal to year-round OHV recreation under the HCP (approximately 109 acres in total); however, the actual location and acreage of land within the Southern Exclosure hat could transition from seasonal to year-round OHV recreation would occur according to biological criteria and other regulatory requirements and may occur in a manner than is different than assumed in this EIR.

described in Section 5.2.3, PI-SWERL data collected in riding and non-riding areas since 2011 has found that surface emissivity is higher in riding areas than non-riding areas. This finding also applies to seasonal riding areas such as the East Boneyard Exclosure and 6 Exclosure, although the amount of PI-SWERL sampling in seasonal areas is limited, and the difference between seasonal riding and non-riding areas is less than that between year-round riding areas and nonriding areas. Although there has been no direct measurement of the change in surface emissivity associated with the transition from seasonal to year-round OHV recreation, it is assumed, based on the totality of the PI-SWERL data collected at Oceano Dunes SVRA, as well as other studies such as that conducted by DRI during the temporary closure of the SVRA in 2020, that increasing the amount of OHV recreation in the Boneyard Exclosure and 6 Exclosure would likely increase surface emissivity in these areas.

While CA-50 would have the potential to increase surface emissivity, it is uncertain what effect this increase would have on the overall PM_{10} emissions from Oceano Dunes SVRA. As shown in Table 5-4, the modeling conducted for the 2025 ARWP indicated that the current Oceano Dunes SVRA landscape is not in a state of excess PM_{10} emissions as of July 31, 2025; however, as shown in Table 5-**6**, the EIR baseline landscape (136.8 metric tons per day) could be above the latest pre-disturbance landscape emissions estimate (135.2 metric tons per day) by 1.5 metric tons per day.[21] The transition of the plover exclosure from seasonal recreation to year round recreation would be likely to increase emissions from the plover exclosure and, therefore, could further exacerbate a non-compliant excess emissions condition.[22] The magnitude of this impact would primarily depend on the amount of acreage inside the plover exclosure that is transitioned from seasonal to recreational status. For the purposes of this EIR, it is assumed up to approximately 55 acres of the plover exclosure could be transitioned to year-round recreation in a single year (47 acres for East Boneyard and 7.5 acres for one increment of the 6 Exclosure), and that up to approximately 109 acres of plover exclosure could be transitioned to year-round recreation under the HCP. Other factors such as the location of the specific areas transitioned would also affect, to a lesser degree, potential changes in surface emissivity, PM_{10} emissions, and associated downwind PM_{10} concentrations.

To assess potential impacts associated with the CA-50, CDPR has coordinated with the SAG and DRI to model the transition of the plover exclosure from the EIR's baseline seasonal recreation status to year-round recreation status as considered under CA-50. The modeling is based on the latest scientific evidence regarding surface emissivity conditions in areas that are open to OHV recreation on a year round basis, and applies the emissivity relation of the modeled "Riding Area Central-South" zone – the zone with the highest surface emissivity – to approximately 55 acres

[21] This assumes the EIR baseline landscape scenario is directly compared to the 2025 pre-disturbance excess emissions level. As noted in Section 5.2.4.2, the excess emissions framework was not in place in 2020 and the pre-disturbance excess emissions level reported in the 2025 ARWP is the lowest value that has been reported and used for SOA compliance purposes to date.

[22] Although non-compliant excess emissions conditions could be exacerbated, the overall total PM10 emissions from Oceano Dunes SVRA, as well as downwind concentrations, have been substantially reduced from 2020 conditions. See for example, Table 5-2 and Table 5-3, showing decreases in exceedances of the CAAQS at the CDF air quality monitoring station over time, and Table 5-4 and Table 5-5, showing decreases in estimated pre-disturbance and current landscape emissions between 2024 and 2025.

(in a single year) and 109 acres (in total) of the modeled "Plover Exclosure" zone[23]. The EIR baseline and CA-50 model excess emissions model results are compared in Table 5-**6**Table 5-**6**.

Table 5-6: Comparison of EIR Baseline and CA-50 Excess Emissions Model Results

Excess Emissions Model Scenario	PM_{10} Excess Emissions Estimates (Metric Tons Per Day)		
	EIR Baseline[(A)]	EIR CA-50 (55 Acres)[(B)]	EIR CA-50 (109 Acres)[(C)]
Pre-Disturbance Landscape	135.2	135.2	135.2
EIR Landscape	136.8	138.1	139.2
EIR Landscape Emissions above Pre-Disturbance Landscape Emissions?	Yes	Yes	Yes

Source: (CDPR 2025a; DRI 2025)

Notes:

(A) The EIR Baseline estimate approximates 2020 conditions when the plover exclosure was open to recreation on a seasonal basis only (from October 1 through the end of February).

(B) This CA-50 estimate approximates a condition in which approximately 55 acres of the plover exclosure is transitioned to year-round recreation and the rest of the plover exclosure (approximately 245 acres) is open to seasonal recreation only.

(C) This CA-50 estimate approximates a condition in which approximately 109 acres of the plover exclosure is transitioned to year-round recreation and the rest of the plover exclosure (approximately 171 acres) is open to seasonal recreation only.

Preliminarily, the potential transition of the plover exclosure from seasonal to year round recreation is estimated to increase PM_{10} emissions from the EIR baseline condition by up to approximately 1.3 metric tons per day in the first year (approximately 55 acres of transition) and 2.4 metric tons per day in total (approximately 109 acres of transition). In total, the transition of up to approximately 55 acres (in a single year) and 109 acres (in total) could result in 2.9 to 4.0 more metric tons per day of PM_{10} emissions than the latest (2025) modeled pre-disturbance scenario. Modeled pre-disturbance landscape emissions may or may not change with future excess emissions modeling conducted pursuant to the SOA.

It is important to note that regional emissivity and PM_{10} emissions may change as new information is collected by CDPR pursuant to the SOA, ARWPs, etc. Potential changes in surface emissivity that are not accounted for in the current 2025 or future excess emissions modeling could affect the ability to achieve current dust reduction goals set by the SOA. In addition, increases in surface emissivity could lead to the entrainment of more dust and PM in the wind, resulting in higher ambient pollutant concentrations measured at SLOAPCD and CDPR monitoring stations (i.e., CDF, Mesa2, NRP, and Oso Flaco) and potential violations of ambient air quality standards. The potential for increases in surface emissivity to lead to higher

[23] While CA-50 proposes the transition of approximately 47 acres in the East Boneyard Exclosure and approximately 62 acres in the 6 Exclosure, or approximately 109 acres in total, the modeling conducted by DRI to evaluate the potential effects of CA-50 is based on slightly different values because the DRI model relies on a series of square grid cells that must be wholly assigned a specific emissivity relation. The inclusion or exclusion of whole grid cells also results in modeled zones that approximately sized. It is noted that the modeling conduction by DRI assumes more acres of conversion than proposed by CA-50 and, therefore, the resulting emissions changes associated with CA_50 would be overestimated.

measured pollutant concentrations at the SLOAPCD's two closest monitoring sites, CDF and Mesa2, is discussed below

5.3.2.1 Potential Changes in Ambient Air Quality

As described in Section 5.2.2, Oceano Dunes SVRA is subjected to strong prevailing west-northwest winds, particularly during the spring and early summer season. Although the Boneyard Exclosure and 6 Exclosure are areas already open to OHV recreation from October 1 through February 28, other than the recent temporary closure, additional OHV recreation in these areas from March 1 through September 30, which includes the spring windy season at the SVRA, could result in changes to dust emissions originating from these areas. As shown in Table 5-6, the potential increase in emissions is estimated to be between 1.3 and 2.4 metric tons per day (compared to baseline conditions) and 2.9 and 4.0 metric tons per day (compared to the Draft 2025 ARWP pre-disturbance scenario). While increases in emissions could potentially lead to non-compliance with the SOA, an emissions increase may not necessarily result in exceedances of the NAAQS or CAAQS for several reasons. First, while the northernmost part of the 6 Exclosure (approximately 13 of 62 acres) is located upwind of CDF, most of the 6 Exclosure is located west of the CDF site, outside of the prevailing wind direction that is most likely to affect the CDF station. Second, potential changes in the 6 Exclosure would occur incrementally, limiting the annual change in both PM_{10} emissions and downwind PM_{10} concentrations that would occur under CA-50. Third, changes to recreational activities in the 6 Exclosure would be located at least 2.4 miles from the CDF monitoring site and 4.3 miles from the Mesa2 monitoring site, which increases dispersion time and minimizes potential to change PM_{10} concentrations downwind of the SVRA. Finally, while the transition of the 47-acre East Boneyard Exclosure from seasonal to year-round recreation under CA-50 could occur all at once, the East Boneyard Exclosure is located near the southern boundary of the SVRA, generally to the west of, and more than 3.5 miles from, the SLOAPCD's Mesa2 monitoring station, which also minimizes potential to change PM_{10} concentrations downwind of the SVRA.

It is important to note that although the prevailing west-northwest wind direction at Oceano Dunes SVRA is generally well documented, in actuality the range in wind direction that influences PM_{10} concentrations at SLOACD monitoring stations and the Nipomo Mesa in general may be larger than is typically documented. In addition, although there may be an upwind area that most influences measured concentrations at any particular site, not all emissions measured at a site are from one specific source or upwind area of influence; PM and dust emissions from other portions of the SVRA still contribute to concentrations measured at CDF and Mesa2, as do other sources that are located outside the SVRA.

5.3.2.2 Significance Determination

The potential for CA-50 to increase surface emissivity and dust generation in a manner that adversely affects ambient air quality and causes or contributes to existing or projected violations of the NAAQS and/or CAAQS is limited due to dispersion characteristics and procedural methods that determine if a violation of an ambient air quality standard has occurred. Any potential changes to surface emissivity in the plover exclosure would be unlikely to substantially contribute to downwind violations of state and federal air quality standards. The 6 Exclosure (i.e., the northern part of the plover exclosure) is located at least approximately 2.4 miles from the air quality monitoring station on which surface emissivity and PM_{10} emissions changes would have the greatest influence (CDF), while the East Boneyard Exclosure (i.e., the southern part of the plover exclosure) is located at least 3.6 miles from the station most likely affected by changes

in East Boneyard emissivity (Mesa2). The distance between CA-50 activities and these stations provides time for emissions to disperse and limits the direct change attributable to these activities at locations downwind of the SVRA. In addition, as described in EIR section 5.1.1, NAAQS attainment determinations are based on prescribed computational equations, and generally more than one exceedance of the NAAQS standard must occur for a violation of the standard to occur. Thus, a single exceedance would not necessarily result in a violation of the NAAQS standards for PM_{10} or $PM_{2.5}$. The CAAQS are generally more stringent than the NAAQS, in that a single exceedance of the PM_{10} or $PM_{2.5}$ state standards can be considered a violation of the CAAQS.

CDPR's Dust Control Program is designed to "eliminate emissions in excess of naturally occurring emissions from [Oceano Dunes SVRA] that contribute to downwind violations of the state and federal PM_{10} air quality standards." As summarized in Section 5.2.4, the excess emissions modeling conducted for the 2024 ARWP and Draft 2025 ARWP indicated Oceano Dunes SVRA was not in a condition of excess emissions and, therefore, was not contributing to downwind violations of state and federal PM_{10} air quality standards; however, this modeling did not explicitly account for potential changes in surface emissivity, PM_{10} emissions, and downwind PM_{10} concentrations that may occur with the implementation of CA-50. As shown in Table 5-6, excess emissions modeling conducted for this EIR indicates Oceano Dunes SVRA may not be in compliance with the SOA due to increased emissivity in the plover exclosure associated with the planned transition from the exclosure's baseline seasonal recreation status to a year-round recreation status. Accordingly, CDPR will coordinate with the SAG on the potential for HCP activities to affect specific emissivity monitoring protocols, near- and long-term excess emission modeling exercises, and adaptive management of the Dust Control Program, in addition to addressing dust control activities in order to comply with the SOA. Thus, future ARWPs prepared by CDPR to comply with the SOA would incorporate the results of excess emissions modeling that addresses potential surface emissivity changes associated with CA-50. Nonetheless, until such changes are fully incorporated into the Dust Control Program and excess emissions modeling is conducted with these changes considered, unaccounted for increases in surface emissivity and dust generation associated with CA-50 could exacerbate sensitive receptor exposure to substantial pollutant concentrations and/or cause or contribute to exceedances of ambient air quality standards. This is considered a potentially significant impact. The implementation of CA-50 would be more likely to contribute to CAAQS exceedances than NAAQS exceedances at CDF and Mesa2 due to the more stringent nature of the state standards.

To ensure that proposed CA-50 does not cause or contribute to adverse changes in ambient air quality leading to violations of the NAAQS and CAAQS for $PM_{2.5}$ and PM_{10}, CDPR would implement Mitigation Measure AIR-1 (see EIR section 5.5). Mitigation Measure AIR-1 would require CDPR to coordinate with the SAG to ensure that potential surface emissivity changes, PM_{10} emissions, and PM_{10} concentrations associated with CA-50 are incorporated into the 2026, 2027, and 2028 ARWP processes and the excess emissions modeling conducted to show compliance with SOA 17-01. Planning for and incorporating these activities into the ARWP and excess emissions modeling processes, as necessary, would ensure that Oceano Dunes SVRA does not generate emissions in excess of naturally occurring emissions that contribute to downwind violations of state and federal PM_{10} air quality standards. With the implementation of Mitigation Measures AIR-1, this impact would be ***less than significant with mitigation incorporated***.

5.4 CUMULATIVE IMPACTS

The proposed new project activities would not result in a cumulatively considerable air quality impact with mitigation incorporated.

Several projects located near, but outside of, the SVRA could generate PM_{10} and $PM_{2.5}$ from construction and operational activities. These include the Phillips 66 Santa Maria Refinery Demolition and Remediation Project, the Dana Reserve Specific Plan, and the Monarch Dunes Specific Plan. These projects have completed or are undergoing environmental review, and all have included mitigation measures that render potential emissions of PM_{10} and $PM_{2.5}$ a less than significant impact.

Some of the potential future projects covered by the HCP that are not proposed projects in this EIR (see Table 3-1) could also generate PM_{10} and $PM_{2.5}$ from construction and operational activities. The construction and operation of potential new facilities (e.g., Grover Beach Lodge and Conference Center [CA-38]) and infrastructure (e.g., Oso Flaco Lake Boardwalk Replacement [CA-48]) and some species and habitat management activities (e.g., Habitat Restoration Program – CalVTP [CA-16]) could generate fugitive dust emissions from surface disturbance (e.g., site preparation and grading) and exhaust emissions from equipment operation (e.g., excavators, loaders, worker trucks/cars, etc.) and vehicle trips. Changes in OHV recreation (Limited Trail Riding [CA-42]) could increase OHV activity in some portions of the SVRA while decreasing it in others, potentially changing surface emissivity conditions within the SVRA; however, this activity is not anticipated to substantially increase emissions because trail riding would occur in vegetated areas that would control potential dust emissions from trail riding activities. Furthermore, potential future dust control activities would continue to result in the control of dust emissions from the SVRA. Finally, construction activities associated with other CDPR projects (see Table 3-1) such as improving campgrounds, entrance stations, or the Corporation Yard (e.g., Oceano Campground Water and Electrical Service Improvements, and Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, New North Beach Entrance Station, and Park Corporation Yard Improvements) could result in fugitive dust and equipment exhaust emissions; however, these activities are not expected to result in changes in overall operational activities or emissions levels.

Potential HCP-covered activity and other future projects at the SVRA have or would be subject to future environmental review and CDPR protocols for reducing erosion and dust emissions, during construction activities, and none of these activities are expected to change operational activities in a manner that would substantially increase long-term PM_{10} and $PM_{2.5}$ emissions levels from the SVRA.

The discussion of potential impacts presented in EIR section 5.3 is cumulative in nature. In considering potential cumulative air quality impacts, it is important to note that a region's non-attainment status is generally attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of regional ambient air quality standards. Instead, a project's individual emissions contribute to overall air quality conditions. If a project's contribution to cumulative air quality conditions is considerable, then the project's cumulative impact on air quality would be considered significant.

The proposed project would implement Mitigation Measures AIR-1, which requires CDPR to coordinate with the SAG to ensure that potential surface emissivity changes, PM_{10} emissions,

and PM_{10} concentrations associated with CA-50 are incorporated into the 2026, 2027, and 2028 ARWP processes and the excess emissions modeling conducted to show compliance with SOA 17-01. Planning for and incorporating these activities into the ARWP and excess emissions modeling processes, as necessary, would ensure that Oceano Dunes SVRA does not generate emissions in excess of naturally occurring emissions that contribute to downwind violations of state and federal PM_{10} air quality standards. As such, the cumulative air quality impact of the project would be ***less than significant with mitigation incorporated***.

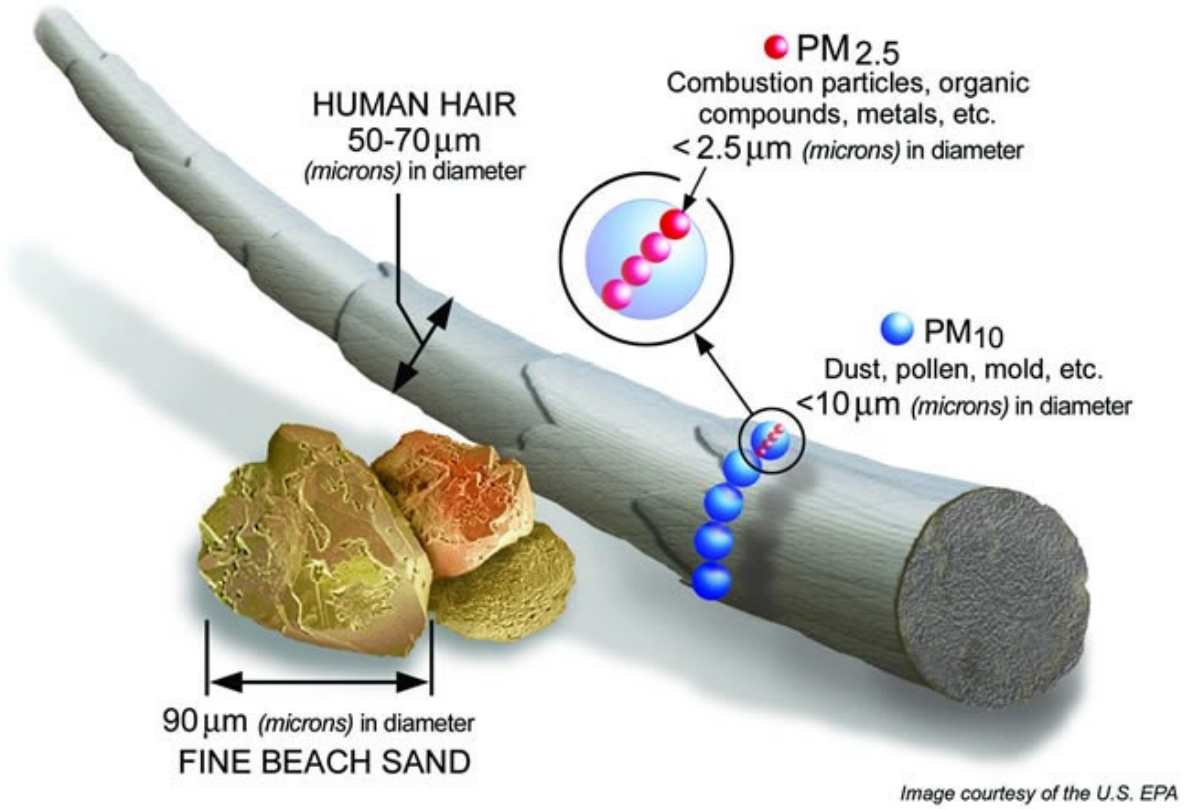
5.5 MITIGATION MEASURES

Impact AIR-1: The proposed reduction of the East Boneyard Exclosure and 6 Exclosure (CA-50) could potentially change dune surface emissivity, increase dust generation, expose persons to substantial pollutant concentrations that lead to exceedances of $PM_{2.5}$ and/or PM_{10} ambient air quality standards.

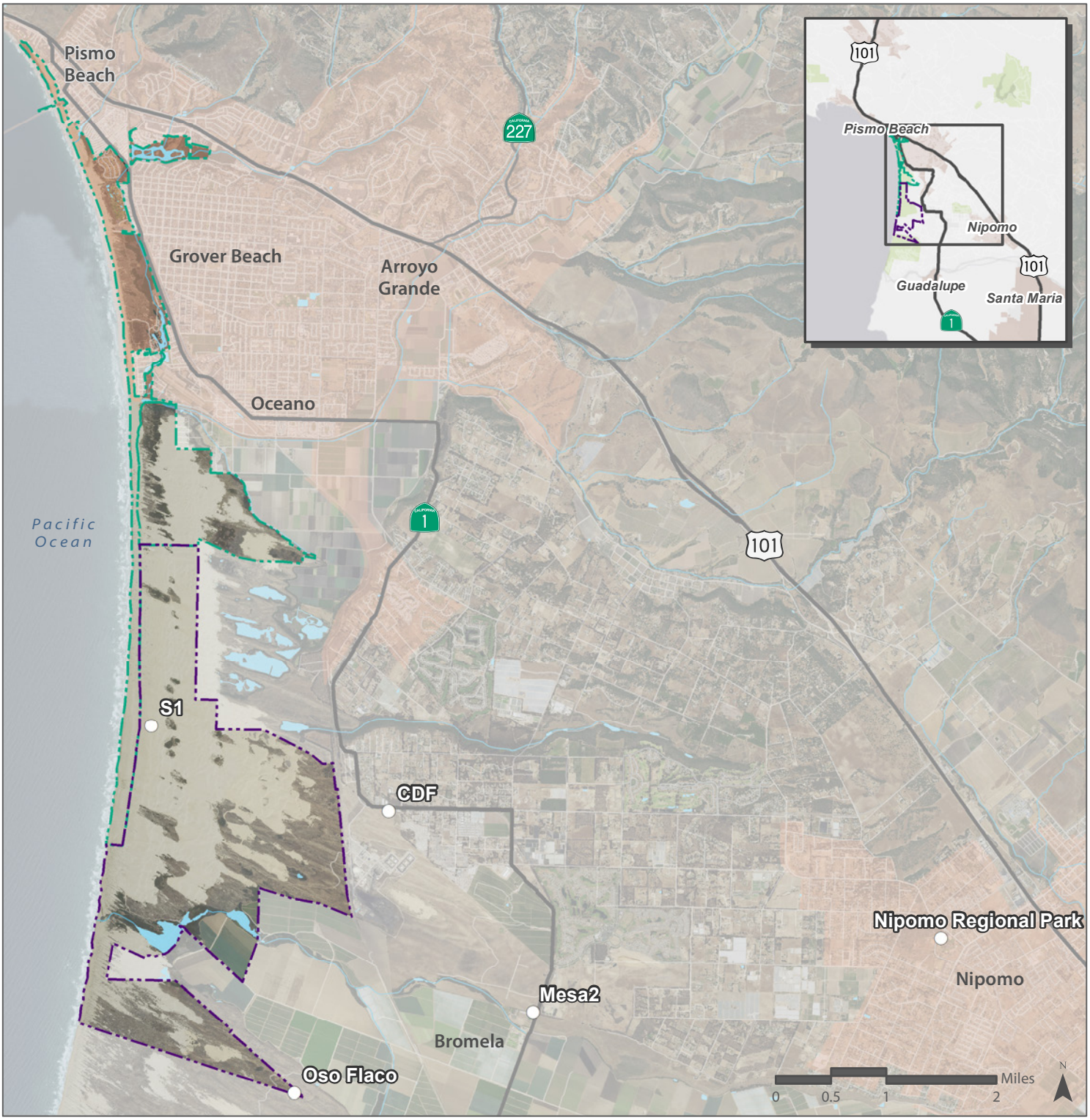
Mitigation Measure AIR-1: To ensure that implementation of HCP CA-50 (Reducing the Boneyard Exclosure and 6 Exclosure) does not cause or contribute to violations of air quality standards downwind of Oceano Dunes SVRA, CDPR shall plan for and incorporate potential surface emissivity changes into the Annual Report and Work Plan (ARWP) process required by Stipulated Order of Abatement (SOA) #17-01. CDPR shall, as determined to be necessary by each ARWP process:

1) Develop a Portable In-Situ Wind Erosion Lab (PI-SWERL) monitoring plan that provides the information necessary to adequately address potential changes in surface emissivity associated with implementation of CA-50.
2) Evaluate and establish scientifically defensible PM_{10} emissivity relations in the plover exclosure, including areas that may be subject to modified recreation status such as the East Boneyard Exclosure and 6 Exclosure. The establishment of emissivity relations in the plover exclosure may be based on historical emissivity data, new emissivity data, or a combination of historical and new emissivity data and, if deemed necessary by CDPR, new excess emissions model sub-regions that delineate CA-50 activities shall be developed and incorporated into the excess emissions model's "current landscape" scenario.
3) Ensure emissions from the Oceano Dunes SVRA, inclusive of CA-50 activities, continue to comply with SOA #17-01.
    a. If CDPR finds CA-50 is contributing to, or is predicted to contribute to, emissions that are above the predicted naturally occurring emissions that contribute to exceedances of state and federal PM_{10} air quality standards (or that contribute to non-compliant conditions pursuant to a different SOA metric adopted by the SLOACPD), CDPR shall implement measures that reduce PM_{10} emissions to levels that comply with the SOA. Such measures shall be determined via the relevant ARWP process and may include, but are not limited to:
        i. Discontinue the transition of 6 Exclosure and/or East Boneyard Exclosure from seasonal recreation to year-round recreation;
        ii. Return areas within the plover exclosure that been transitioned to year-round recreation back to seasonal recreation only.
        iii. Control dust from another portion of the HCP area to achieve compliance with the SOA.

Figure 5-1 Particulate Matter



PM_{10} particles are approximately five to seven times smaller than the diameter of a human hair. $PM_{2.5}$ particles are approximately 20 to 25 times smaller than the diameter of a human hair. Image source: (US EPA 2024).



Air Quality Monitoring Stations

- Existing air quality monitor

Base Map Features

- Oceano Dunes SVRA
- Pismo State Beach
- Urban Areas
- Waterbody
- Stream
- Highway

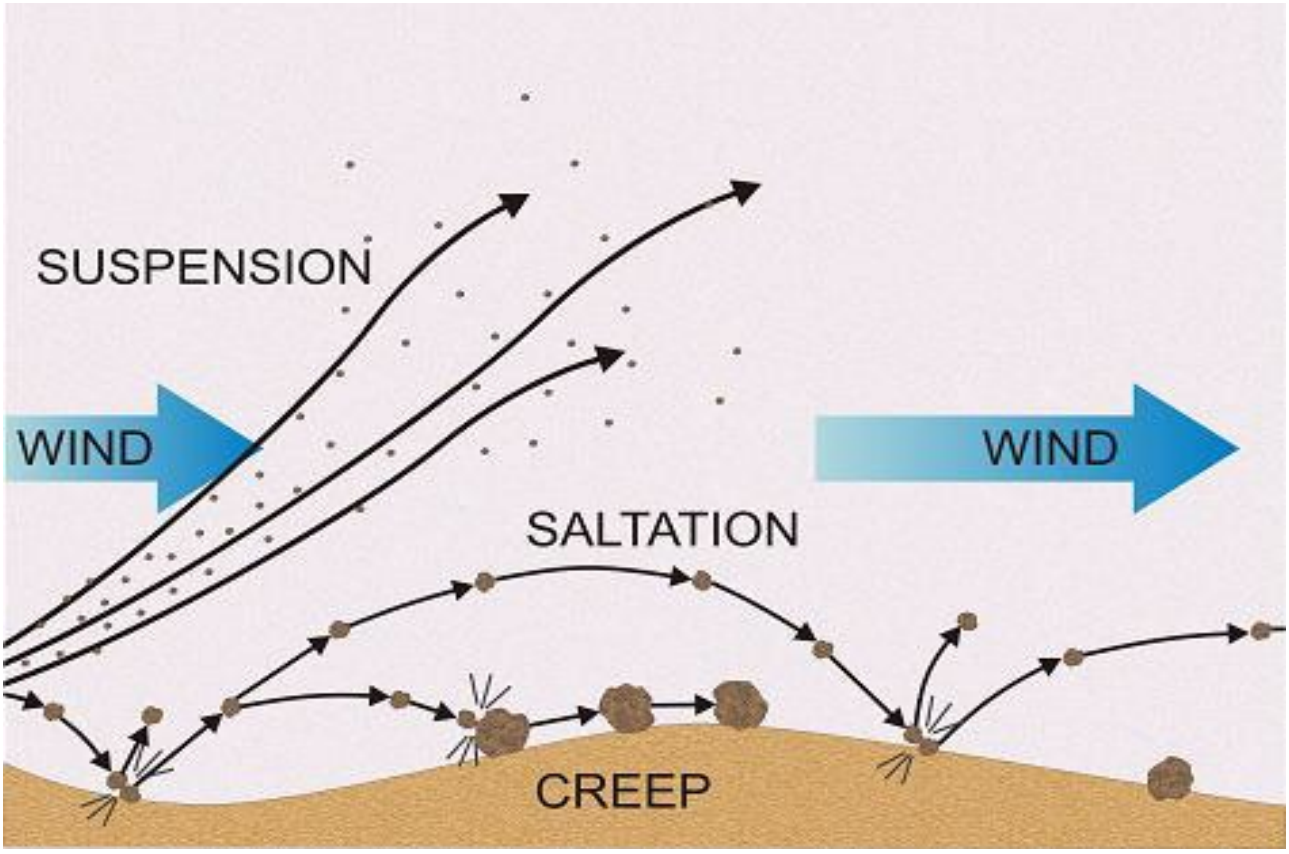
MIG

May 2026
Source: ARB, 2014; SLO Co Open GIS, 2017; CDPR, 2020 MIG, 2020

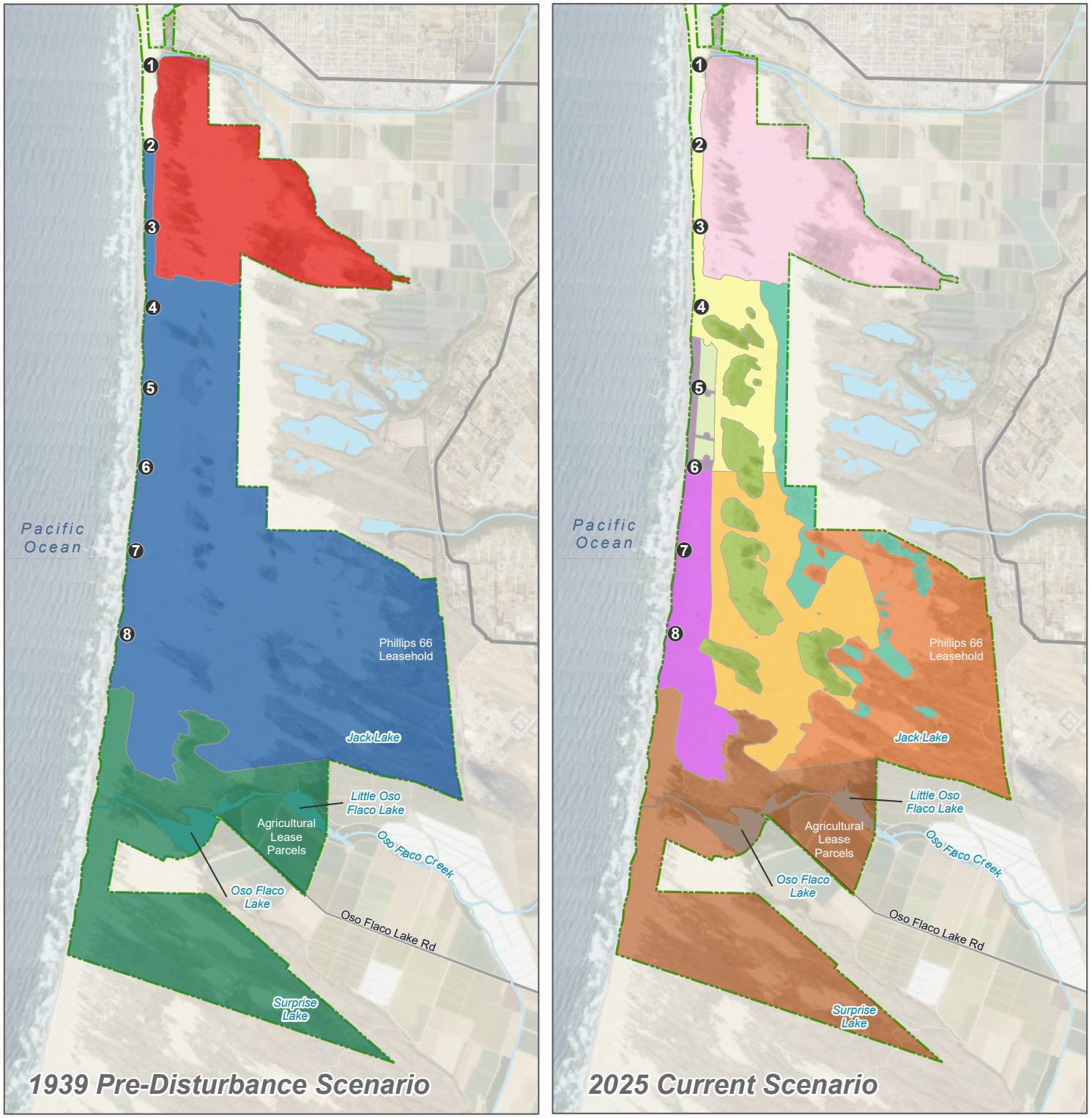
Figure 5-2 HCP Area and Air Quality Monitoring Stations

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Figure 5-3 Saltation and Dust Generation Process



Wind results in sand creep or saltation and the suspension of fine particles.
Image source: (USDA n.d.).



Modeled Emissivity Zones

1939 Pre-Disturbance Scenario

- Non Riding Area North
- Non Riding Area Central
- Non Riding Area South

2025 Current Scenario

- Riding Area Central-North
- Riding Area Central-South
- Non Riding Area North
- Non Riding Area Central
- Non Riding Area South
- Foredune Restoration Area
- Revegetation
- Vegetation Islands
- Plover Exclosure
- Seasonal Exclosure

Base Map Features

- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

0 0.25 0.5 1 Mile

N

May 2026
Source: CDPR 2024; MIG 2024

Figure 5-4 Oceano Dunes SVRA Modeled Emissivity Zones

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

CHAPTER 6. BIOLOGICAL RESOURCES

6.1 REGULATORY SETTING

This section describes the applicable federal and state laws and regulations governing biological resources. The FESA, Migratory Bird Treaty Act (MBTA), and CWA are the principal federal laws relevant to biological resources in the HCP area. In addition to CEQA, the principal state laws regulating biological resources are CESA, additional California Fish and Game Code[24] sections, and the Porter-Cologne Water Quality Act.

6.1.1 Federal Endangered Species Act

FESA (16 U.S.C. §§ 1531–1544) provides for the conservation of ecosystems (both through federal action and by encouraging the establishment of state programs) upon which threatened and endangered species of fish, wildlife, and plants depend. FESA is enforced by USFWS—part of the Department of Interior—for terrestrial and non-marine fish and by NOAA Fisheries—part of the Department of Commerce—for marine species, including steelhead and other anadromous fish. The Secretary of the Interior and the Secretary of Commerce are designated in FESA as responsible for identifying endangered and threatened species and their critical habitat. Key FESA provisions are described below.

Section 3. Section 3 of FESA provides for the designation of critical habitat for listed species. Section 3 defines critical habitat as: (i) the specific areas within the geographical area occupied by the species at the time it is listed on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon determination that such areas are essential for the conservation of the species. The term "conservation" is defined in section 3 as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." Therefore, critical habitat includes biologically suitable areas necessary for recovery of the species. Critical habitat may also include an area that is not currently occupied by the species but that will be needed for its recovery.

Section 7. Section 7 of FESA requires federal agencies to ensure that their actions, including issuing permits, do not jeopardize the continued existence of listed species or destroy or adversely modify listed species' critical habitat. "Jeopardize the continued existence of…" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR § 402.02). "Destruction or adverse modification…" means "a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include … those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features" (50 CFR § 402.02). USFWS issuance of an ITP under FESA section 10(a)(1)(B) is a federal action subject to FESA section 7. As a federal agency issuing a discretionary permit, the USFWS is required to

[24] All Fish and Game Code references are to the California Fish and Game Code

consult with itself (i.e., conduct an internal consultation). Delivery of the HCP and a section 10(a)(1)(B) permit application initiates the section 7 consultation process within the USFWS.

Section 9. Section 9 of FESA and federal regulation pursuant to FESA section 4(d) prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the USFWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the USFWS as intentional or negligent actions that create the likelihood of injury to listed species by annoying them to such an extent as to significantly disrupt normal behavioral patterns that include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. ~~Pursuant to the Principal Deputy Director's Memorandum~~ (USFWS 2018a)~~, harassment is not a form of take permitted under section 10(a)(1)(B) since it is not incidental take and is instead an intentional or negligent act.~~

Section 10. Recovery and interstate commerce permits are issued to allow for take as part of activities intended to foster the recovery of listed species under FESA section 10(a)(1)(A). A typical use of a recovery permit is to allow for scientific research on a listed species in order to better understand the species' long-term survival needs. Interstate commerce permits also allow transport and sale of listed species across state lines (e.g., for purposes such as a breeding program).

Individuals and state and local agencies proposing an action that is expected to result in the take of federally-listed species are encouraged to apply for an ITP under FESA section 10(a)(1)(B) to be in compliance with the law. Such permits are issued by the USFWS when take is not the intention of and is incidental to otherwise legal activities. An ITP application must be accompanied by an HCP. The regulatory standard under section 10(a)(1)(B) is that the effects of authorized incidental take must be minimized and mitigated to the maximum extent practicable. Under section 10(a)(1)(B), a proposed project also must not appreciably reduce the likelihood of the survival and recovery of the species in the wild, and adequate funding for a plan to minimize and mitigate impacts must be ensured.

Section 11. Pursuant to FESA section 11(a) and (b), any person who knowingly violates section 9 or any permit, certificate, or regulation related to section 9 may be subject to civil penalties or criminal penalties for each violation and/or imprisonment.

6.1.2 Migratory Bird Treaty Act

The federal MBTA of 1918 (16 USC § 703 *et seq.*) makes it unlawful to pursue, hunt, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties between the United States and Great Britain, the Republic of Mexico, Japan, and Russia. The MBTA authorizes the Secretary of the Interior to issue Special Purpose Permits. The procedures for securing such permits are found in Title 50 of the CFR, together with a list of the migratory birds covered by the MBTA. The USFWS has determined that an ITP issued under FESA section 10 also constitutes a Special Purpose Permit under 50 CFR 21.27, and any take allowed under an ITP will not be in violation of the MBTA.

6.1.3 Clean Water Act

The federal CWA is the primary federal law that protects the quality of the nation's surface waters. Under the CWA, all discharges of pollutants into "waters of the United States" are unlawful unless specifically authorized by a permit. "Waters of the United States" include, but are not limited to, oceans, bays, rivers, streams, and certain wetlands.

Under Section 404 of the CWA, the USACE must issue a permit to legally place any dredged or fill material below the ordinary high water mark of any water of the United States. Many projects require an individual, project-specific, permit. Other projects can streamline the permitting process by obtaining coverage under an existing nationwide permit that covers a range of activities. All projects that require a permit under Section 404 must also comply with Section 401 of the CWA. In California, Section 401 requires the state, through one of the nine RWQCBs, to certify that the discharge complies with all state water quality standards.

6.1.4 California Endangered Species Act

Section 2080 of the Fish and Game Code prohibits "take" of any species that CDFW determines to be an endangered species or a threatened species, except as otherwise provided. Take is defined in section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Unlike FESA, the definition of take under CESA does not include harm or harassment. Like FESA, CESA allows for take incidental to otherwise lawful activities.

Section 2081 of the Fish and Game Code allows CDFW to authorize acts that are otherwise prohibited pursuant to section 2080 of the Fish and Game Code. Section 2081(a) allows CDFW to authorize the import, export, take, or possession of endangered, threatened, or candidate species through a permit or memorandum of understanding for scientific, educational, or management purposes. Section 2081(b) allows CDFW to authorize take that is incidental to an otherwise lawful activity. Section 2835 of the Fish and Game Code allows CDFW to authorize by permit the taking of any covered species, including those designated as fully protected species, whose conservation and management is provided for in an NCCP approved by CDFW. CDPR has taken preliminary steps to prepare an NCCP to comply with CESA. The NCCP will include take coverage for CLTE and the six state-listed plants included in the HCP.

6.1.5 California Fish and Game Code

6.1.5.1 Lake or Streambed Alteration Agreements

Sections 1600–1617 of the Fish and Game Code require requires any person, state or local governmental agency, or public utility to notify CDFW prior to any activity that may: "divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; or deposit or dispose of material into any river, stream, or lake." CDFW reviews the proposed actions in the notification and, if necessary, prepares a Lake or Streambed Alteration Agreement that includes measures to protect affected fish and wildlife resources.

6.1.5.2 California Native Plant Protection Act

The California NPPA was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (Fish & Game Code § 1900–1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare

and to protect them from "take." CDFW maintains a list of plant species that have been officially classified as endangered, threatened, or rare. These special-status plants have special protection under California law.

6.1.5.3 Non-Game Mammals

Sections 4150–4155 of the Fish and Game Code protect non-game mammals, including bats. Section 4150 states, "A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a non-game mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission." The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. All bats are classified as a non-game mammals and are protected under the Fish and Game Code.

6.1.5.4 Fully Protected Species and Species of Special Concern

The classification of California fully protected (CFP) species was CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections that list CFP species (§ 5515 for fish, § 5050 for amphibian and reptiles, § 3511 for birds, § 4700 for mammals) state that except as provided, these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species." Take of these species may be authorized under limited circumstances, including for necessary scientific research, which includes efforts to recover state-listed species, or pursuant to an NCCP. This language makes the CFP designation the strongest and most restrictive regarding the "take" of these species.

California species of special concern (CSSC) are broadly defined as animals not currently listed under FESA or CESA, but which are nonetheless of concern to CDFW because they are declining at a rate that could result in listing or that historically occurred in low numbers, and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species and focus research and management attention on them.

6.1.5.5 Nesting Birds

Eggs and nests of all birds (including raptors and passerines) are protected under Fish and Game Code section 3503. In addition, birds of prey are protected under Fish and Game Code section 3503.5; egrets, osprey, and other specified birds are protected under Fish and Game Code section 3505; and migratory non-game birds are protected under Fish and Game Code section 3513.

6.1.6 Oceano Dunes Biodiversity Management Plan

The Biodiversity Management Plan, adopted January 13, 2021, by CDFW in cooperation with CDPR, discusses management approaches for protecting the biodiversity of ODSVRA and a portion of Pismo State Beach, while balancing the demand of park visitor activities. The plan

sets its focus on impacts to special-status species of plants, invertebrates, amphibians and fish, and shorebirds/seabirds related to OHV use in the ODSVRA.

The Biodiversity Management Plan discusses the potential impacts of OHV activity (i.e., habitat disturbance, incidental take) to special-status species as well as various interim conservation actions to minimize or avoid those potential impacts. Management strategies include ongoing annual surveys such as rare plant and nesting surveys, small mammal monitoring, exclusion fencing, increased buffer zones around special-status bird nesting sites, and prohibiting vehicle crossings of creeks during high stream flows to assist fish migration among other strategies. The plan also discusses restoration actions such as the planting and maintenance of vegetated islands and the permanent closures of special-status species habitat areas to promote population growth. Further, the plan discusses future collaboration between CDFW and CDPR to enhance conservation efforts within the Biodiversity Management Plan area.

6.1.7 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 established the State Water Resources Control Board (State Water Board) and divided the state into nine regions that are each overseen by an RWQCB. The State Water Board is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, but much of its daily implementation authority is delegated to the RWQCBs. The RWQCBs are generally responsible for implementing CWA Section 401, among others, described above.

6.1.8 California Coastal Act

As described in greater detail in EIR section 4.1.4, the California Coastal Act (PRC § 30000 *et seq.*) governs development within the Coastal Zone.

The Coastal Act defines the term "sensitive coastal resource areas" to mean those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity (PRC § 30116). In addition, the Coastal Act defines "wetland" to mean land within the coastal zone that may be covered periodically or permanently with shallow water, and includes saltwater marshes, freshwater marshes, open or closed brackish marshes, swamps, mudflats, and fens (PRC § 30121). Finally, the Coastal Act defines ESHA as an area in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Chapter 3 of the Coastal Act, Coastal Resources Planning and Management Policies, sets forth the policies that constitute the standards for the adequacy of LCPs and development subject to the Coastal Act (PRC § 30200 *et seq.*). This chapter of the Coastal Act establishes the following standards related to biological resources:

- Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance (PRC § 30230).
- The biological productivity and quality of waters and wetlands appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored (PRC § 30231).

- Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values and only uses dependent on those resources shall be allowed within those areas (PRC § 30240).
- Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas (PRC § 30240).

6.1.9 California State Lands Commission

The California State Lands Commission (SLC) has jurisdiction and management over sovereign state-owned lands, lands sold directly to settlers from the federal government, lands granted to the state for sale or use, and lands granted by a prior sovereign (i.e., rancho and pueblo lands). Sovereign lands include approximately four million acres of land underlying the state's navigable and tidal waterways, including the beds of California's navigable rivers, lakes and streams, as well as the state's tide and submerged lands along the state's approximately1,100 miles of coastline and offshore islands.

The SLC holds its sovereign lands for the benefit of all the people of the state, subject to the Public Trust, for water related commerce, navigation, fisheries, recreation, open space and other recognized Public Trust uses. Authorization from the SLC is required if there are plans to build upon or otherwise occupy any lands described above, such activity may be within the SLC's jurisdiction. The SLC also monitors sovereign land granted in trust by the California Legislature to approximately 70 local jurisdictions that generally consist of prime waterfront lands and coastal waters. The SLC protects and enhances these lands and natural resources by issuing leases for use or development, providing public access, resolving boundaries between public and private lands, and implementing regulatory programs to protect state waters from oil spills and invasive species introductions.

The SLC's jurisdiction for tidal lands extends from the mean high tide line to three nautical miles offshore. Except for those locations where the boundary has been permanently fixed by either a court or an agreement with the SLC, the boundary of tidal lands is classified as an ambulatory boundary because it is based on the location of the water. The ambulatory boundary is determined from the mean high tide, which can be determined by either the published mean high water elevation from the closest NOAA tide station to the project or a linear interpolation between two adjacent tide stations, depending on tidal regime characteristics. The current tidal datum and epoch should be used (presently NAVD88 and 1983-2001, respectively). Local, published control benchmarks should be used in determining elevations at the survey site. Control benchmarks are monuments on the ground that have been precisely located and referenced to the local tide stations and vertical datum used to calculate the mean high tide elevation and the elevation datum must match that of the tidal datum.

6.1.10 Public Resources Code Section 5090.35

PRC section 5090.35 (c)(1) requires the OHMVR Division to inventory wildlife populations and their habitats in each SVRA and to prepare a Wildlife Habitat Protection Plan (WHPP) for the SVRA. The goals of the WHPP are to conserve and improve wildlife habitats for each SVRA. If the OHMVR Division determines the WHPP is not being met in any portion of an SVRA, the OHMVR Division must temporarily close the noncompliant portion until the WHPP is met. If

the WHPP cannot be met, the OHMVR Division must close and restore the noncompliant portion.

Oceano Dunes SVRA prepared its first WHPP in 1991 with the goal to protect and maintain habitats, plant and wildlife species, and other sensitive wildlife in the SVRA. The Oceano Dunes SVRA WHPP is updated, as needed, and includes a description of the natural environment in the SVRA, lists of species observed in the SVRA, and protocols for monitoring and recording vegetation types and rare species, the monarch butterfly grove in Pismo State Beach, terrestrial and shorebirds, herpetofauna, fish, small mammals, and bats. Large mammals are recorded incidentally as part of the SNPL and CLTE predator management program and may be subject to more monitoring in the future (CDPR 2024).

6.2 ENVIRONMENTAL SETTING

This section describes the vegetation, habitat types, special-status species in the HCP area, summarizes the biological impacts of existing covered activities, and summarizes existing AMMs. The information is based on data developed for the HCP, including updated vegetation mapping in 2024 and recent CDPR surveys.

6.2.1 HCP Area Habitat Types and Vegetation Alliances

6.2.1.1 Physical Setting and Habitat Types

The HCP area has a Mediterranean climate characterized by year-round mild temperatures, moist winters, and warm dry summers. A band of low clouds often occurs along the immediate coast during the summer months. This cloudy zone moves inland during the night and early morning hours and recedes offshore during the day. Due to the marine influence, temperatures remain moderate year-round. Average maximum temperatures in the summer are typically in the 60s and 70s; average minimum temperatures in winter are typically in the 40s and 50s. According to local precipitation data from a weather station installed in Nipomo by the California Irrigation Management Information System, annual precipitation ranged from 7.4 to 15.5 inches from 2013-2018. Along the coast of California, wind predominately blows from the west and northwest. These prevailing wind patterns are most pronounced during the spring (March to June). During this period, hourly average wind speeds often exceed 20 mph or more in the HCP area from approximately mid-morning to late afternoon, with little to no variation in the prevailing wind direction. The winds become light and variable at night and in the early morning hours.

The area is within the Coast Range geomorphic province of California, at the intersection of the Pacific and North American tectonic plates. The province is dominated by northwest-trending mountain ranges and valleys, almost parallel to the San Andreas Fault, located about 40 miles to the east of the HCP area. Most of San Luis Obispo County sits atop a 180-million-year-old mix of consolidated igneous, metamorphic, and sedimentary rock.

The HCP area is within an 18-mile stretch of the Guadalupe-Nipomo Dunes Complex, a relatively intact coastal dune and dune scrub ecosystem varying in width from 2 to 5 miles. The Guadalupe-Nipomo Dunes Complex extends from Pismo Beach to Point Sal, and roughly from State Route 1 west to the Pacific Ocean in San Luis Obispo and Santa Barbara counties.

The HCP area is dominated by sand dunes and has elevations ranging from sea level to about 192 feet above mean sea level. The topography is flat adjacent to the ocean and undulates

through the dunes east of the beach. Dune crests run north to south. On the western (windward, or fore-) side of the dunes, the slopes are gentle. On the eastern (leeward, or back-) side of the dunes the slopes are steep. Wave action, wind, and water erosion cause the dunes to move slowly over time. Lake, creek, and wetland areas are generally flat or gently sloped. The HCP area is in two major watersheds—the Arroyo Grande Creek watershed in the northern portion of the SVRA and the Oso Flaco Creek watershed in the southern portion of the SVRA. It is traversed by Pismo Creek, Carpenter Creek, Meadow Creek, Arroyo Grande Creek, and Oso Flaco Creek. It contains Oso Flaco Lake, Pismo Lake, and occasional slack lakes in the dunes.

The habitats in the HCP area include open sandy beach, fore- and backdune, lake, freshwater stream, coastal lagoon, wetland, riparian, and woodlands, along with agriculture and developed areas. In 2022, CDPR mapped vegetation within the HCP area boundaries under the CDFW Vegetation Classification and Mapping Program (VegCAMP) which uses the Manual of California Vegetation (Sawyer, Keeler-Wolf and Evans 2009) classification system. In 2024, updates were made to the dataset to reflect changes to vegetation cover since 2022, notably restoration and dust mitigation planting areas.

6.2.1.2 Overview

The sandy beaches in the HCP area are a harsh environment where most plants are unable to survive. Behind them are the dunes, which may be divided into two zones—foredunes and backdunes—characterized by their location and dominant vegetation. Foredunes, which begin at the high tide line and include vast natural areas of open sand sheet, are characterized as low, wind-deposited dunes that are sparsely vegetated with the hardiest of dune stabilizing plants. When vegetation can gain a foothold, only low-growing plants with deep root systems can survive, such as sand verbena (*Abronia* spp.) and beach bur (*Ambrosia chamissonis*). The strong winds, storm waves, salt spray, lack of fresh water, nutrient-poor substrate (i.e., sand), and alternating periods of sand burial and erosion make this area uninhabitable for other types of plants. The backdunes, located behind the foredunes, are more stabilized and vegetated than the foredunes due to less wind and other erosive forces. The backdunes are dominated by dune scrub species like mock heather (*Ericameria ericoides*), silver dune lupine (*Lupinus chamissonis*), seacliff buckwheat (*Eriogonum parviflorum*), and dune ragwort (*Senecio blochmaniae*).

Wetland and riparian habitats surround Oso Flaco Lake, Little Oso Flaco Lake, and Pismo Lake and are scattered throughout the South Oso Flaco area and the Phillips 66 Leasehold area and along streams. The wetlands include salt marshes, fresh- and brackish-water marshes, swamps, mudflats, and the dune slack lakes. Dune slack lakes are flats eroded by wind down to the water table to form wetland "slacks" (i.e., seasonally flooded marshes and flats near sea level). Plants that live within these coastal wetland environments are adapted to dynamic environmental conditions including high salinity concentrations and extreme temperatures (McLeod 2001).

Woodland habitats are limited in size and are largely comprised of non-native species, including eucalyptus (*Eucalyptus* sp.), and Monterey pine (*Pinus radiata*). A few native coast live oaks (*Quercus agrifolia*) are present, scattered as single trees in the backdunes. The pines are similarly scattered, but the eucalyptus form groves at some sites, including the monarch butterfly grove near State Route 1.

Weeds threatening native plant life have been introduced into the dune environment both purposefully and accidentally. Various native plants are choked out by invasive species like European beach grass (*Ammophila arenaria*), perennial veldt grass (*Ehrharta erecta*), and iceplant (*Carpobrotus* spp.). These species were planted to stabilize the dunes many years prior

to CDPR acquisition and are still planted by neighboring landowners. The foredune system of the Pismo Dunes Natural Preserve is stabilized with the European beach grass, which forms dense mats. As a result, these dunes are unusually tall compared to other foredunes in the HCP area that are stabilized with native vegetation, perennial veldt grass, or iceplant. The Oceano Dunes District actively controls European beach grass, perennial veldt grass, jubata grass (*Cortaderia jubata*), iceplant, Cape ivy (*Delairea odorata*), and Russian wheat grass (*Elytrigia juncea* ssp*. boreali-atlantica*).

6.2.1.3 Vegetation and Other Land Cover Types

A concise summary of identified vegetation types is presented below, with corresponding acreages listed in Figure 6-1 Vegetation Types in the HCP Area. Vegetation community classification adhered to the established protocols outlined in the Manual of California Vegetation, Second Edition (MCV2) (Sawyer, Keeler-Wolf and Evans 2009) and Online Edition (CNPS 2024). Communities were assigned to existing alliance or association categories within the MCV2 framework. Vegetation and landcover types in the HCP area are also shown in Table 6-1.

Table 6-1. Vegetation Types and Other Land Coverage Including Acreages within HCP Area

Vegetation/ Land Cover Type	Acres	Percentage of total HCP Area
Sand	2,023.50	40.43
Silver dune lupine mock heather scrub	786.28	15.71
Silver dune lupine scrub	577.54	11.54
Arroyo willow thicket	449.43	8.98
Dune mat	305.10	6.10
Mock heather scrub	257.27	5.14
Agriculture	119.08	2.38
Other non-native alliances	113.39	2.26
Native wetland alliances	93.89	1.88
Open water	78.55	1.57
Urban	74.06	1.47
Other native upland alliances	67.72	1.35
European beach grass sward (invasive)	59.45	1.19
Total	**5,005**	**100.00**

The dominant vegetation types in the HCP area are the native silver dune lupine – mock heather scrub (15.7%), silver dune lupine scrub (11.5%), mock heather scrubland (6.1%), and arroyo willow (*Salix lasiolepis*) thickets (9%), which all occur primarily in the backdunes. Silver dune lupine – mock heather scrub, silver dune lupine scrub, and mock heather scrubland are upland vegetation types, and although arroyo willow is considered a wetland type, standing water or other wetland species are not associated with every arroyo willow stand. Dune mats, a native

upland vegetation type, is the most prevalent alliance in the foredunes (6.1%). European beach grass swards is the most prevalent non-native vegetation type (1.2%).

The "native wetland alliances" include black cottonwood (*Populus trichocarpa*) forest and woodland, salmonberry (*Rubus spectabilis*) – wax myrtle (*Morella californica*) scrub, California bulrush (*Schoenoplectus californicus*) marsh, salt rush (*Juncus lescurii*) swales, cattail (*Typha latifolia*) marsh, and pickleweed (*Sarcocornia pacifica*) mats.

The "other non-native alliances" include eucalyptus groves, Bishop pine (*Pinus muricata*) – Monterey pine forest and woodland, Monterey cypress (*Hesperocyparis macrocarpa*) – Monterey pine woodland stands, wattle (*Acacia cyclops, dealbata*) semi-natural stands, ice plant mats, searocket (*Cakile maritima*) stands, and California ruderal grassland, meadow, and scrub group.

The "other native upland alliances" include coast live oak woodland and forest, California coastal cypress (*Hesperocyparis pigmaea*, *abramsiana*, *macrocarpa*, *goveniana*) woodland, coyote brush (*Baccharis pilularis*) scrub, giant coreopsis (*Coreopsis gigantea*) scrub, California buckthorn (*Frangula californica* ssp. *californica*) scrub, California blackberry (*Rubus ursinus*) shrubland, poison oak (*Toxicodendron diversilobum*) scrub, sand-aster (*Corethrogyne filaginifolia*) and perennial buckwheat (*Eriogonum elongatum*, *nudum*) fields, and Californian annual grassland and forb meadow group.

Other land cover types in the HCP area include open sand (40.4%), agriculture (2.4%), open water (1.6%), and urban (1.5%).

6.2.2 Wildlife in the HCP Area

Numerous species of invertebrates, marine and freshwater fish, reptiles and amphibians, birds, and mammals depend on the dune ecosystem in the HCP area. CDPR surveys of Pismo State Beach and Oceano Dunes SVRA have detected at least 28 species of fish; 28 species of reptiles and amphibians; 19 species of mammals, including marine mammals; and numerous bird species (CDPR 2024). Over 304 species of birds live in or migrate through the Guadalupe-Nipomo Dunes Complex. Common wildlife observed in the HCP area are discussed below.

6.2.2.1 Beach and Dune Habitats

The beach supports a burrowing invertebrate population that depends on the ocean for food. The invertebrates provide food for a wide variety of bird species that feed along the shoreline. Willets (*Tringa semipalmatus*), marbled godwits (*Limosa fedoa*), and sanderlings (*Calidris alba*) search for food in the sand. Wrack (primarily kelp) that washes onshore also supports invertebrates that provide food for birds. Several species of gulls (*Laridae* sp.) frequent the beach to scavenge carcasses that have washed ashore, as do some terrestrial birds such as the Brewer's blackbird (*Euphagus cyanocephalus*) and white-crowned sparrow (*Zonotrichia leucophrys*). East of the beach, wind-created sand dunes and their vegetation offer some protection for wildlife. Red-winged blackbirds (*Agelaius phoeniceus*), song sparrows (*Melospiza melodia*), and western meadowlarks (*Sturnella neglecta*) take advantage of the seeds provided by the dune vegetation. Deer mice (*Peromyscus maniculatus*) and black-tailed jackrabbits (*Lepus californicus*) forage in the dune scrub and may themselves become food for predators such as great horned owl (*Bubo virginianus*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*). Migrating waterfowl stop at the wetlands and aquatic habitats in the HCP area.

6.2.2.2 Riparian Habitat

Riparian habitat, with its constantly available water and dense, diverse vegetation of trees, shrubs, and herbs, provides abundant food and cover to many wildlife species. The moist riparian area produces abundant insect life, food for many insectivorous amphibians, birds, and mammals such as the Pacific chorus frog (*Pseudacris regilla*), western skink (*Plestiodon skiltonianus*), Wilson's warbler (*Cardellina pusilla*), black phoebe (*Sayornis nigricans*), Pacific-slope flycatcher (*Empidonax difficilis*), northern rough-winged swallow (*Stelgidopteryx serripennis*), and ornate shrew (*Sorex ornatus*). Omnivorous inhabitants include the big-eared woodrat (*Neotoma macrotis*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). Predators include garter snake (*Thamnophis* sp.), black-crowned night heron (*Nycticorax nycticorax*), red-shouldered hawk (*Buteo lineatus*), and gray fox (*Urocyon cinereoargenteus*).

6.2.2.3 Aquatic Habitat

Freshwater creeks and lakes provide habitat for aquatic macroinvertebrates that, along with vegetative detritus in the form of leaf litter and woody debris, form the base of the stream food chain. Freshwater streams or creeks support resident rainbow trout (*Oncorhynchus mykiss*) and steelhead (i.e., seagoing [anadromous] rainbow trout) as well as other native fishes such as threespine stickleback (*Gasterosteus aculeatus*), speckled dace (*Rhinichthys osculus*), Pacific lamprey (*Entosphenus tridentatus*), and prickly sculpin (*Cottus asper*). Estuarine environments support tidewater goby and steelhead. Slow-moving sections of streams provide important habitat for native amphibians and reptiles such as CRLF and SWPT. Ephemeral and intermittent tributary streams may provide important habitat for western toad (*Anaxrus boreas*) and WSF. A high variety of insects, birds, amphibians, reptiles, and mammals utilize the riparian vegetation associated with freshwater aquatic habitat.

6.2.2.4 Other Habitats

The HCP area also includes disturbed/developed habitat such as the North Beach Campground, the Oceano Campground, the Pismo State Beach Golf Course, and the Ranger Station and yard. Animal species typical of urban coastal areas would be expected to occur here, such as western fence lizard (*Sceloporus occidentalis*), sparrows, finches, blackbirds, gulls, racoon, opossum, mice, and black rats (*Rattus rattus*).

6.2.3 Special-Status Species

Special-status species are those plants and animals that are legally protected or otherwise recognized as vulnerable to habitat loss or population decline by federal, state, or local resource conservation agencies and organizations. A special-status species is defined as a species meeting one or more of the following criteria:

- Listed, proposed for listing, or candidate for possible future listing as threatened or endangered under FESA (50 CFR § 17.12).
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish & Game Code § 2050 *et seq.*).
- Designated as rare under the California NPPA (Fish & Game Code § 1900 *et seq.*).
- Designated as a Fully Protected Species (Fish & Game Code §§ 3511, 4700, 5050, and 5515).

- Designated as a CSSC on CDFW's Special Animals list (CDFW 2025).
- Included on CDFW's Watchlist.
- USFWS Birds of Conservation Concern (BCC) (USFWS 2021).
- Meets the definition of rare or endangered under CEQA (§ 15380 (b) and (d)). Species that may meet the definition of rare or endangered include the following:
    - Plant species considered by California Native Plant Society (CNPS) and CDFW to be "rare, threatened, or endangered in California" (California Rare Plant Ranks [CRPR] 1A, 1B, and 2) (CNPS 2025) (CDFW 2025).
    - Species that may warrant consideration on the basis of local significance or recent biological information.
    - Species considered locally significant; that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context, such as within a county or region. An example could include a species at the outer limits of its known range or a species occurring on an uncommon soil type. In general, CRPR 3 and 4 species were considered locally significant for the purposes of this analysis.[25]

Appendix C provides descriptions of special-status species evaluated for potential to occur within the HCP area along with life history and occurrence information for those species potentially affected by existing, new proposed, or future activities. The list was compiled based on information from a USFWS Information for Planning and Consultation (IPaC) species list (USFWS 2025a), CDPR HCP Appendix A, 2024 WHPP Appendix A, California Natural Diversity Database (CNDDB) records from the Pismo Beach and Oceano 7.5 minute quadrangles (CNDDB 2025), and the CNPS Inventory of Rare and Endangered Plants list from the Pismo Beach and Oceano 7.5 minute quadrangles (CNPS 2025). Based on these sources, a total of 72 animal species and 100 plant species were evaluated for their potential to occur in the HCP area. Of these species, 57 special-status animal species have been recorded within the HCP area, and 37 special-status plant species have been recorded within the HCP area and/or have a moderate potential to occur within the HCP area (see Tables C-1 and C-2). Three of the special-status plant species are not native to the HCP area, and six of the special-status plant species are rare and not expected to be encountered or affected by covered activities; these species were excluded from this analysis.

The HCP impact area is limited to those areas affected by existing and new proposed covered activities as discussed in the EIR Project Description and listed in Table 2-4. Species occurring outside of the existing and new covered activity areas and/or those that are extremely uncommon in the HCP area would not be expected to be impacted by the HCP and are therefore dismissed from further consideration in this analysis. Species that are potentially affected by existing or new proposed covered activities are summarized below and listed in Table 6-2 (animal species) and Table 6-3 (plant species).

Many of the activities proposed in the HCP are existing and ongoing and are therefore considered part of baseline conditions for the project (section 2.4.2.1). These ongoing species

[25] In general, CRPR Rank 3 and 4 plants may not warrant consideration under CEQA; however, they are included here under the definition of special-status plants.

impacts occurring in areas where existing activities covered by the HCP occur are described in EIR Appendix D. Species impacts associated with the new proposed activities are addressed in project impacts (section 6.3.2). The potential for contemplated future activities covered by the HCP to contribute to project impacts to special-status species is addressed in cumulative impacts (section 6.4.1). A brief summary of special-status species that occur in the HCP area and their potential to be affected by the existing and new proposed activities follows.

Invertebrates. One special-status invertebrate, monarch butterfly (*Danaus plexippus*), is known to occur within the HCP area. Suitable habitat for overwintering monarch butterflies is limited to two distinct groves of eucalyptus (*Eucalyptus* sp.) and Monterey cypress (*Hesperocyparis macrocarpa*) trees within the HCP area. These two sites provide the necessary wind protection and microclimate conditions that continue to support overwintering monarchs. These sites, which are proposed as monarch butterfly critical habitat, are unlikely to be affected by covered activities because they are already being managed and protected by the Oceano Dunes District through a comprehensive management plan (Monarch Butterfly Overwintering Site Management Plan for Pismo State Beach, October 2020) that guides the work to restore, maintain, and improve the sites' valuable habitat for monarchs. Site conditions, vulnerabilities, and monitoring protocols are also addressed in the Overwintering Plan. The proposed rule for listing the monarch butterfly references the Oceano Dunes District's Overwintering Management Plan and invites other interested parties to utilize it as a template.

Fish. Two special-status fish species are known to occur in the HCP area: tidewater goby (*Eucyclogobius newberryi*) and steelhead (*Oncorhynchus mykiss irideus*) South-Central California Coast DPS. The tidewater goby is a covered species in the HCP; see tidewater goby critical and occupied habitat in Figure 6-2 Tidewater Goby Habitat and Critical Habitat. Existing covered activities affect tidewater goby as described in more detail in EIR Appendix D. Tidewater goby is known to occur in Arroyo Grande Creek/Lagoon, Pismo Creek, Oso Flaco Creek, and associated creek systems within the HCP area. Some proposed new HCP activities (i.e., tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-15] and invasive aquatic predator control [CA-17]) could occur in tidewater goby habitat and could impact this species. Therefore, potential impacts to tidewater goby from new proposed activities are discussed further in EIR section 6.3 below.

Steelhead occurs in Arroyo Grande Creek and Pismo Creek, which are the only two creeks that support steelhead in the HCP area. CDPR staff monitor fish populations in these areas one to four times per year (CDPR 2024). The steelhead South-Central California Coast DPS is not a covered species because NOAA Fisheries concluded that the existing covered activities listed in the HCP are not likely to take steelhead with the implementation of AMMs (NOAA Fisheries 2008). Ongoing monitoring of Arroyo Grande Creek fisheries populations, conducted at multiple times each year since 2003, has not documented take or risk of take to steelhead or damage to steelhead habitat from vehicle creek crossings or other covered activities; observations continue to be consistent with conclusions of the 2008 NOAA Fisheries conclusions. Tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14) and invasive aquatic predator control (CA-17) could occur in Arroyo Grande Creek and Pismo Creek where steelhead occur. However, these activities are similar to ongoing covered activities including tidewater goby surveys (CA-13), CRLF surveys (CA-14), and incidental removal of invasive aquatic species (CA-17). These activities have not adversely affected steelhead in the past. In addition, CDPR implements SPRs, which along with AMMs for covered species, assure avoidance of impacts to this species. Therefore, new covered activities are not expected to impact steelhead, and this species is not considered further in this analysis.

Amphibians and Reptiles. CDPR staff conduct regular surveys for amphibians and reptiles according to protocols described in the WHPP. Three special-status amphibians, including CRLF, WSF, and coast range newt (*Taricha torosa*), and four special-status reptile species, including coast horned lizard (*Phrynosoma blainvillii*), Northern California legless lizard (*Anniella pulchra*), two-striped garter snake (*Thamnophis hammondii*), and SWPT, are known to occur in the HCP area. Existing covered activities potentially affect CRLF, WSF, coast horned lizard, Northern California legless lizard, and SWPT as described in more detail in EIR Appendix D.

SWPT, CRLF, and WSF are covered species in the HCP; see occurrences and potential habitat for these species in Figure 6-3 Southwestern Pond Turtle Occurrences and Potential Habitat through Figure 6-5 Western Spadefoot Occurrences and Potential Habitat. Impacts to SWPT, CRLF, WSF, coast horned lizard, and Northern California legless lizard could also occur from new proposed activities (e.g., tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], invasive aquatic predator control [CA-17], mechanical trash removal [CA-21], and seasonal exclosure reduction [CA-50]). Impacts from new proposed activities are discussed further in EIR section 6.3 below.

Impacts to two-striped garter snake and coast range newts are not expected from existing activities because they are likely very rare in the HCP area; therefore, the potential for any impacts to occur are low. For similar reasons, two-striped garter snake and coast range newt are not likely to be impacted by the new proposed activities and are not considered further in this analysis.

Birds. There are 42 special-status bird species known to occur in the HCP area. Birds are the most widespread and prevalent species in the HCP area. A distinction is made between breeding birds versus foraging, roosting, migrating, or loafing birds because breeding birds are more susceptible to disturbance that can result in reproductive failure. For 24 of these bird species, the HCP area is outside of their known breeding range, although they are known to be migrants or winter residents in the HCP area and occur there seasonally and/or infrequently. As such, the HCP covered activities, including existing and new proposed covered activities, are generally expected to have short-term, temporary disturbance to wintering or migrating birds when covered activities occur in the same area where individuals or flocks are passing through, foraging, or roosting. Impacts to wintering/migrating birds from existing covered activities are described in more detail in EIR Appendix D. Impacts to wintering/migrating birds from proposed new covered activities (e.g., egg and chick capture for captive rearing if they are observed to be in harm's way [CA-12b], tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], invasive aquatic predator control [CA-17], mechanical trash removal [CA-21], seasonal exclosure reduction [CA-50], and CDPR's use of UAS [CA-52]) are described in more detail in EIR section 6.3 below. Although burrowing owls also only occur in the HCP area in the winter, potential impacts to this species are discussed separately from other wintering/migratory birds in both Appendix D and section 6.3 because their use of burrows in the ground could make them more vulnerable to impacts.

There are 11 special-status bird species that nest in the HCP area and/or occur in the HCP area during the breeding season and likely nest nearby, including the two covered bird species (SNPL and CLTE). See Figure 6-6 Western Snowy Plover and California Least Tern Breeding and Foraging Habitat in the HCP Area for suitable SNPL and CLTE habitat and SNPL critical habitat. Common nesting birds also occur throughout the HCP area, including in developed areas. Impacts to nesting birds, including special-status nesting bird species, are expected from

existing covered activities and are described in more detail in EIR Appendix D. In addition, proposed new covered activities (e.g., egg and chick capture for captive rearing if they are observed to be in harm's way [CA-12b], tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], invasive aquatic predator control [CA-17], mechanical trash removal [CA-21], seasonal exclosure reduction [CA-50], and CDPR's use of UAS [CA-52]) could impact nesting birds, including special-status nesting birds, and are described in more detail in EIR section 6.3 below.

There are six special-status bird species that have been observed in the HCP area but are not expected to be impacted by existing or proposed new covered activities, including the wood stork (*Mycteria americana*), golden eagle (*Aquila chrysaetos*), California black rail (*Laterallus jamaicensis* ssp. *coturniculus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), olive-sided flycatcher (*Contopus cooperi*), and purple martin (*Progne subis*). Wood stork, golden eagle, California black rail, western yellow-billed cuckoo, olive-sided flycatcher, and purple martin are likely rare migrants or occasional visitors in the HCP area and are not expected to occur in most years. As a result, these species would not be impacted by new proposed covered activities and are not considered further in this analysis.

Mammals. Five special-status mammal species occur in the HCP area, including pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), Townsend's big-eared bat (*Corynorhinus townsendii*), American badger (*Taxidea taxus*), and southern sea otter (*Enhydra lutris nereis*). Pallid bat, western red bat, and Townsend's big-eared bat have been detected during acoustic surveys in the HCP area at Oso Flaco Lake and Oceano Lagoon. These bats and other common bat species could be impacted by existing covered activities that remove or occur near roost trees, including routine riparian maintenance activities. American badger could also be impacted by existing covered activities that occur in open sand areas where American badger or badger sign (e.g., dens) have been found. Although southern sea otters usually occur offshore, they occasionally haul out on the beach but are quickly spotted and protected from injury or other harm until they safely return to the ocean. If the otter appears sick or injured, CDPR contacts an authorized marine mammal rescue organization, which is able to respond as appropriate. Sea otters are thus unlikely to be impacted by covered activities. Impacts on special-status bats and American badger from existing covered activities are described in more detail in EIR Appendix D. Impacts to American badger from proposed new covered activities are described in more detail in EIR section 6.3 below.

Of the new covered activities, only dune slack restoration (CA-16) has the potential to impact roosting bats, through the temporary removal or disturbance of riparian roosting habitat. Tidewater goby salvage, SWPT and WSF monitoring and invasive aquatic predator control are similar to ongoing covered activities (CA-13, CA-14, and CA-17, respectively) which have not impacted bats in the past. SNPL chick and egg capture for captive rearing if observed to be threatened by covered activities (CA-12b), mechanical trash removal (CA-21) and seasonal exclosure reduction (CA-50) would not occur in habitat where bats would be expected to forage (e.g., aquatic habitat) or roost (e.g., riparian habitat, tree stands) and would, therefore, have no impact on bats. CDPR UAS use (CA-52) would occur during the day when bats are not active, and UAS would not be flown in tree stands or riparian areas; therefore, bats would not be impacted by UAS activity. Impacts to roosting bats from proposed new covered activities are described in more detail in EIR section 6.3 below.

Plants. There are 28 special-status plants known to occur within the HCP area that could be impacted by existing or new proposed activities, including the 6 listed species covered by the

HCP (marsh sandwort, La Graciosa thistle, surf thistle, beach spectaclepod, Nipomo Mesa lupine, and Gambel's watercress). See suitable habitat for the covered plants in Figure 6-7 Modeled Plant Habitat in the HCP Area, and La Graciosa thistle critical habitat and occurrences in Figure 6-8 La Graciosa Thistle Occurrences and Critical Habitat in and near the HCP Area. Impacts on special-status plants from existing covered activities are described in more detail in EIR Appendix D. Impacts to some special-status plants could occur from proposed new covered activities (i.e., dune slack restoration [CA-16], mechanical trash removal [CA-21], and seasonal exclosure reduction [CA-50]). Those species potentially impacted by proposed new covered activities are identified in Table 6-3 and are described in more detail in EIR section 6.3 below.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
monarch butterfly *Danaus plexippus*	FPT	Roosts in Pismo State Beach. May roost elsewhere, within eucalyptus groves, Monterey pine forest, and Monterey cypress forest.	**Unlikely.** Other than visitors walking along trails within the grove and the accompanying interpretive activities, existing covered activities do not occur within the overwintering period for monarch in the tree grove at Pismo State Beach, and removal of suitable roost trees does not occur in other HCP locations where this species may occur. Any activities within the Monarch Grove outside the winter season are conducted to improve monarch overwintering habitat.
tidewater goby *Eucyclogobius newberryi*	FE, CSSC	Occurs in Arroyo Grande Creek, Carpenter Creek, Oceano (Meadow Creek) Lagoon, Oso Flaco Creek, and Pismo Creek. Critical habitat is present in the HCP area.	**Yes**. Existing covered activities occur in suitable habitat areas and could affect individuals or nest burrows.
steelhead - south/central California coast DPS *Oncorhynchus mykiss irideus*	FT, CSSC	Occurs in Pismo Creek and Arroyo Grande Creek. This species is localized to these creek systems and their confluences with the Pacific Ocean.	**Unlikely**. Existing covered activities occur in suitable aquatic habitat areas, but are unlikely to affect steelhead or their habitat, although some minor disturbance may occasionally occur. Letter from NOAA Fisheries to CDPR dated December 23, 2008, found that unauthorized steelhead take from existing covered activities was unlikely. Specific to Arroyo Grande Creek, NOAA Fisheries concluded vehicle crossings do not occur under conditions that could cause direct contact with steelhead or that diminish the value of the creek as steelhead habitat. Ongoing monitoring of Arroyo Grande Creek fisheries populations, conducted multiple times each year since 2003, has not documented take or risk of take to steelhead or damage to steelhead habitat from vehicle creek crossings or other covered activities. Observations continue to be consistent with conclusions of the 2008 NOAA Fisheries conclusions.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
California red-legged frog *Rana draytonii*	FT, CSSC	Occurs in Arroyo Grande Creek and Estuary, Oso Flaco Lake, and Little Oso Flaco Lake. May use other aquatic features throughout the HCP area.	**Yes.** Existing covered activities occur in suitable aquatic habitat areas and could affect suitable habitat, eggs, tadpoles, or adults/juveniles. Impacts in upland habitat are expected to be rare, although dispersing individuals could be injured or killed.
western spadefoot *Spea hammondii*	FPT, CSSC	Often difficult to detect due to extended periods of its life cycle spent underground. Very little is known about this species within the HCP area and the few sightings that exist have been incidental. Documented at Oso Flaco Lake in 2000. Possible sighting within the Eucalyptus Tree vegetation island (one suspected sighting) in 2011. Other ephemeral water sources within the HCP area may be used by this species for breeding. Vegetation islands may be used during dispersal and winter.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect individuals in burrows or within aquatic habitat.
Coast Range newt *Taricha torosa*	CSSC	Infrequently observed in the HCP area within or near aquatic habitat. Suitable habitat for this species is limited to aquatic habitat and areas near aquatic habitat.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.
coast horned lizard *Phrynosoma blainvillii*	CSSC	Documented most recently in the HCP area in 2022. This species may utilize a variety of habitat locations within the HCP area, especially the western interface of sand and silver dune lupine – mock heather scrub habitat.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect individuals or habitat.
Northern California legless lizard *Anniella pulchra*	CSSC	Documented in Oceano Dunes SVRA in vegetation islands, Oceano Campground, at Oso Flaco Lake, Little Oso Flaco Lake, Jack Lake, and near Lettuce Lake. Other similar habitat near freshwater within the HCP area may also be used by this species.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect individuals or habitat.
two-striped garter snake *Thamnophis hammondii*	CSSC	Documented at Oso Flaco Lake. Other suitable habitat along Arroyo Grande Creek and Oso Flaco Creeks may be utilized by this species.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
southwestern pond turtle *Actinemys pallida*	FPT, CSSC	Documented in Oso Flaco Lake and Arroyo Grande Creek. Other freshwater habitat within the HCP area may be used. CDPR staff consistently saw them during exploratory surveys completed in 2024 and 2025.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect individuals or habitat.
western snowy plover *Charadrius nivosus nivosus*	FT, CSSC	Nests and forages in habitat along the beach and foredunes. Winters in the HCP area.	**Yes.** Existing covered activities occur in suitable habitat areas. Effects on breeding and wintering birds and breeding/ wintering habitat modification are known to occur.
California least tern *Sternula antillarum browni*	FE, SE, CFP	Nests along the beach. Most commonly observed foraging over the ocean, though regularly observed foraging at Oso Flaco Lake and Pismo Lake, as well as at the small lagoon that forms at the mouth of Pismo Creek.	**Yes.** Existing covered activities occur in suitable habitat areas. Effects on breeding birds and breeding habitat modification known to occur.
redhead *Aythya Americana*	CSSC (nesting)	Outside the known breeding range. Suitable resting and foraging habitat includes large water bodies like Pismo Lagoon, Oceano Lagoon and Oso Flaco Lake in May 2022).	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
brant *Branta bernicla*	CSSC (wintering and staging)	Outside the known breeding range. Suitable wintering habitat includes Pismo Lagoon, Oso Flaco Lake, and Oceano Lagoon.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
common loon *Gavia immer*	CSSC (nesting)	Outside the known breeding range. Suitable roosting and foraging habitat includes Pismo Lagoon, Oso Flaco Lake, and Oceano Lagoon.	**Yes[2].** No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
American white pelican *Pelecanus erythrorhynchos*	CSSC (nesting colony)	Outside the known breeding range. Frequently observed foraging at Oso Flaco Lake. Suitable foraging habitat in the HCP area includes Pismo Creek, Pismo Lake, Meadow Creek, Oceano Lagoon, Arroyo Grande Creek, Oso Flaco Lakes, and Oso Flaco Creek.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
double-crested cormorant *Nannopterum auratum*	SWL (nesting colony)	Not known to nest within the HCP area. Foraging, roosting, and loafing sites are located anywhere near water bodies and on trees near water bodies.	**Yes[2].** No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
least bittern *Ixobrychus exilis*	CSSC (nesting)	Confirmed breeding at Oso Flaco Lake as recently as September 2021. Suitable breeding/nesting habitat included dense emergent vegetation around Oso Flaco Lake, Pismo Lake, Oceano Lagoon, and Little Oso Flaco Lake.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
wood stork *Mycteria Americana*	CSSC	Outside the known breeding range. Observed near Oso Flaco Lake in 2011. Suitable roosting and foraging habitat includes Oso Flaco Lake, Pismo Lake, Pismo Lagoon, and Oceano Lagoon.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.
osprey *Pandion haliaetus*	SWL (nesting)	Outside the known breeding range. Observed foraging and perching within the HCP area, including Oso Flaco Lake. Suitable overwintering habitat includes trees around Oso Flaco Lake, Little Oso Flaco Lake, Oceano Lagoon, Pismo Lake, Pismo Creek, Arroyo Grande Creek, and Oso Flaco Creek.	**Yes.**[2] No impacts to nesting birds occur. However, existing covered activities could have short-term, temporary effects on wintering/migrating individuals where they are passing through, foraging, or roosting. Osprey individuals are also removed as part of the SNPL and CLTE predator management program in the HCP area.
Cooper's hawk *Accipiter cooperi*	SWL (nesting)	Occurs Districtwide in suitable habitat areas and may nest within the HCP area.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
sharp-shinned hawk *Accipiter striatus*	SWL (nesting)	Outside known breeding range. This species has been infrequently observed in the HCP area. Suitable foraging habitat may exist throughout the Oso Flaco Lake area due to its proximity to agricultural areas. Monterey pine forest, Torrey pine forest, beach pine forest, and coast live oak woodland near the Oceano Campground may also provide suitable habitat for roosting and foraging.	**Yes.**[2] No impacts to nesting birds occur. However, existing covered activities could have short-term, temporary effects on wintering/migrating individuals where they are passing through, foraging, or roosting.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
golden eagle *Aquila chrysaetos*	CFP	Not known to nest within the HCP area and only infrequently observed. A golden eagle was observed at Oso Flaco Lake in April 2021. Oso Flaco Lake, the North Beach campground, Le Sage Rivera Golf Course, Oceano Campground, and isolated stands of Monterey pine forest, beach pine, and coast live oak woodland located throughout the dunes provide suitable nesting and perching habitat. The open beach and agricultural areas provide suitable foraging habitat.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.
northern harrier *Circus hudsonius*	CSSC, BCC	Rare breeder in the Oso Flaco area. Suitable nesting habitat includes Oso Flaco Lake, Little Oso Flaco Lake, Oceano Lagoon, and Pismo Lake.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
white-tailed kite *Elanus leucurus*	CFP	Suitable breeding/nesting habitat in isolated stands of Monterey pine forest, beach pine, and coast live oak woodland may include areas near North Beach campground, Le Sage Rivera Golf Course, Oceano Campground.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
bald eagle *Haliaeetus leucocephalus*	SE, CFP (nesting and wintering)	Outside known breeding range. Wintering habitat present in lakes in HCP area. Observed near Oso Flaco Lake in October 2022.	**Yes.**[2] No impacts to nesting birds occur. However, existing covered activities could have short-term, temporary effects on wintering/migrating individuals where they are passing through, foraging, or roosting.
merlin *Falco columbarius*	SWL (wintering)	Outside known breeding range. Observed in vegetated islands as recently as December 2021, near Oso Flaco Lake in November 2022.	**Yes.**[2] No impacts to nesting birds occur. However, existing covered activities could have short-term, temporary effects on wintering/migrating individuals where they are passing through, foraging, or roosting.
prairie falcon *Falco mexicanus*	SWL (nesting)	Limited preferred cliff and rocky outcrop nesting habitat but could nest in trees or structures in the HCP area. Observed at Oso Flaco Lake in October 2022.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
California black rail *Laterallus jamaicensis* ssp. *coturniculus*	ST, CFP	Historically present and known to breed at Oso Flaco Lake. Not observed since 1991. Suitable foraging, nesting, and roosting habitat may include Oso Flaco Lake, Little Oso Flaco Lake, and Pismo Lake.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
mountain plover *Charadriu montanus*	CSSC, BCC (wintering)	Outside known breeding range. Observed on the shoreline as recently as October 2021.	**Yes.** [2] No impacts to nesting birds occur. However, existing covered activities could have short-term, temporary effects on wintering/migrating individuals where they are passing through, foraging, or roosting.
long-billed curlew *Numenius americanus*	SWL, (nesting)	Outside known breeding range. Suitable foraging and roosting habitat are located throughout HCP area along the beach.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
black tern *Chidonias niger*	CSSC, BCC	Outside known breeding range. May forage in areas with low emergent vegetation on the north and east margins of Oso Flaco Lake, the southern margins of Little Oso Flaco Lake, and along the border of the large wetland directly south of Oso Flaco Lake.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
California gull *Larus californicus*	SWL, BCC (nesting colony)	Outside known breeding range. May utilize a wide range of habitats within the HCP area for foraging and roosting.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting. California gull individuals are also removed as part of the SNPL and CLTE predator management program in the HCP area.
black skimmer *Rynchops niger*	CSSC, BCC (nesting colony)	Outside known breeding range. Observed foraging along the Arroyo Grande Creek mouth. May utilize habitat along beaches and estuaries during migration or over-winter.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
elegant tern *Thalasseus elegans*	SWL, BCC (nesting colony)	Outside known breeding range. Migrants may utilize the ocean shore and the banks of Pismo, Oceano, and Arroyo Grande Lagoons for roosting and/or foraging.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	Outside known breeding range. Foraging habitat located offshore and less likely at Pismo Lake, Pismo Lagoon, Oceano Lagoon, and at the mouths of Pismo Creek, Arroyo Grande Creek, and Oso Flaco Creek.	**Yes.** [2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are foraging near shore.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, SE	Outside known breeding range and wintering range. Any observations are likely rare migrants. Observed at Oso Flaco Lake in 1999 and at Oceano Lagoon in 2010.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.
burrowing owl *Athene cunicularia*	SCE, CSSC, BCC	Wintering occurrence only. Observed at Oso Flaco Lake, Grand Avenue ramp, Phillips 66 Leasehold, near the chemical toilets on the beach, and at Oceano Lagoon.	**Yes.** No impacts to nesting birds occur. Existing covered activities occur in suitable habitat areas and could affect wintering individuals.
Vaux's swift *Chaetura vauxi*	CSSC, BCC (nesting)	Outside known breeding range. Observed at Oso Flaco Lake as recently as May 2022.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
black swift *Cypseloides niger*	CSSC, BCC (nesting)	Outside known breeding range. Observed at Oso Flaco Lake as recently as 2022.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
olive-sided flycatcher *Contopus cooperi*	CSSC, BCC (nesting)	Uncommon breeder in San Luis Obispo County, but could breed within willows, oaks, and eucalyptus trees. Observed at Oso Flaco Lake, Meadow Creek, and Oceano Campground.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.
willow flycatcher *Empidonax trailii*	SE, BCC (nesting)	Outside known breeding range. Observed at Oso Flaco Lake and at Oceano Lagoon as recently as 2022.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
loggerhead shrike *Lanius ludovicianus*	CSSC (nesting)	Known to nest and forage in the area. Regularly observed during nesting season.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
California horned lark *Eremophila alpestris actia*	SWL	May nest and forage in a variety of low grass or bare habitats. Observed during nesting season in the HCP area and the NWR to the south of the HCP area.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
purple martin *Progne subis*	CSSC (nesting)	Limited cavity nesting habitat in HCP area. Occasionally observed near Oso Flaco Lake.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
bank swallow *Riparia riparia*	ST (nesting)	Outside the known breeding range. Observed foraging in the HCP area as recently as 2022.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
yellow-breasted chat *Icteria virens*	CSSC (nesting)	Nesting in the area is not confirmed. Documented at the Oso Flaco Maps Station in 2000 and at Oso Flaco Lake in 2022.	**Unlikely.** Although existing covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to affect this species is very low.
tricolored blackbird *Agelaius tricolor*	ST, CSSC, BCC (nesting)	No nesting documented in the area. Observed at Oso Flaco Lake as recently as March 2022.	**Yes.**[2] No impacts to nesting birds would occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
yellow-headed blackbird *Xanthocephalus xanthocephalus*	CSSC (nesting)	Outside known breeding range. Observed near Oceano Lagoon and at Oso Flaco lake as recently as 2022.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
Lucy's warbler *Leiothlypis luciae*	CSSC (nesting)	Outside known breeding range. Observed foraging in the HCP area at Oso Flaco Lake and Oceano Lagoon as recently as 2017.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/ migrating birds where they are passing through, foraging, or roosting.
yellow warbler *Setophaga petechia*	CSSC, BCC (nesting)	Marginal foraging and nesting habitat present. Documented at Arroyo Grande Creek, Jack Lake, Little Oso Flaco Lake, and Oso Flaco Lake.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect eggs, chicks, and adults/juveniles.
summer tanager *Piranga rubra*	CSSC (nesting)	Outside known breeding range. Observed at Oso Flaco Lake as recently as October 2022.	**Yes.**[2] No impacts to nesting birds occur. Existing covered activities could have short-term, temporary effects on wintering/migrating birds where they are passing through, foraging, or roosting.
pallid bat *Antrozous pallidus*	CSSC	Detected during passive acoustic surveys at Oceano Lagoon in June 2017.	**Yes.** Existing covered activities occur in areas where roosts could be present.
Townsend's big-eared bat *Corynorhinus townsendii*	CSSC	Detected during passive acoustic surveys at Oceano Lagoon in June 2017.	**Yes.** Existing covered activities occur in areas where roosts could be present.
Western red bat *Lasiurus blossevillii*	CSSC	Detected during passive acoustic surveys at Oceano Lagoon in June 2017.	**Yes.** Existing covered activities occur in areas where roosts could be present.

Table 6-2. Special-Status Animal Species in the HCP Area

Species	Listing Status[1]	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
southern sea otter *Enhydra lutris nereis*	FT, CFP	Southern sea otters are occasionally seen offshore of the HCP area.	**Unlikely.** Existing covered activities (e.g., boating and kiteboarding) are unlikely to occur in areas where this species is foraging or resting. Although sea otters occasionally haul out on the beach, they are quickly spotted and protected from injury or other harm until they safely return to the ocean. If the otter appears sick or injured, CDPR contacts an authorized marine mammal rescue organization, which is able to respond as appropriate.
American badger *Taxidea taxus*	CSSC	Observed in vegetation islands, and nearby Phillips 66 Leasehold. Inactive badger dens have also been observed throughout Oceano Dunes SVRA.	**Yes.** Existing covered activities occur in suitable habitat areas and could affect burrowing individuals.

[1]Listing Status Key:

FE – Federal endangered
FT – Federal threatened
FPT – Federal proposed threatened
BCC – USFWS Birds of Conservation Concern
ST – State threatened
CSSC – California species of special concern
CFP – California fully protected
SWL – State watch list

Table 6-3. Special-Status Plant Species in the HCP Area

Species	Listing Status	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
red sand verbena *Abronia maritima*	CRPR 4.2	Documented near Strand Way, Pismo Dunes Natural Preserve, and on vegetation islands.	**Yes.** Existing covered activities occur in suitable habitat.
marsh sandwort *Arenaria paludicola*	FE, SE, CRPR 1B.1	CDPR documented only known extant populations at Oso Flaco Lake and in Black Lake Canyon during 2022 surveys.	**Yes.** Existing covered activities occur in suitable habitat.
Nuttall's milkvetch *Astragalus nuttallii* var. *nuttallii*	CRPR 4.3	CDPR and CNDDB records within Oceano Dunes SVRA including in Pismo Dunes Natural Preserve, Phillips 66 Leasehold, Oso Flaco, and vegetation islands.	**Yes.** Existing covered activities occur in suitable habitat.
Monterey Coast paintbrush *Castilleja latifolia* ssp. *latifolia*	CRPR 4.3	CDPR documented widespread occurrence including Carpenter Creek, Oso Flaco Lake, vegetation islands, Pismo Dunes Natural Preserve, and Phillips 66 Leasehold.	**Yes.** Existing covered activities occur in suitable habitat.

Table 6-3. Special-Status Plant Species in the HCP Area

Species	Listing Status	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
coastal goosefoot *Chenopodium littoreum*	CRPR 1B.2	CDPR and CNDDB records at Oso Flaco and Phillips 66 Leasehold.	**Yes.** Existing covered activities occur in suitable habitat.
Douglas's spineflower *Chorizanthe douglasii*	CRPR 4.3	CDPR records within the Pavilion Hill vegetation island, in the Phillips 66 Leasehold, and by Surprise Lake.	**Yes.** Existing covered activities occur in suitable habitat.
surf thistle *Cirsium rhothophilum*	ST, CRPR 1B.2	CDPR records near Oso Flaco Creek and in the foredunes of the South Oso Flaco area.	**Yes.** Existing covered activities occur in suitable habitat.
La Graciosa thistle *Cirsium scariosum* var. *loncholepis*	FE, ST, CRPR 1B.1	CDPR and CNDDB record at Oso Flaco Lake, near Jack Lake, in the Callender Dunes, and at the Dune Lake complex.	**Yes.** Existing covered activities occur in suitable habitat.
paniculate tarplant *Deinandra paniculata*	CRPR 4.2	CDPR records in the southern portion of the Phillips 66 Leasehold as recently as 2022.	**Yes.** Existing covered activities occur in suitable habitat.
dune larkspur *Delphinium parryi* ssp. *blochmaniae*	CRPR 1B.2	CDPR records of annual occurrence within the Phillips 66 Leasehold and at South Oso Flaco.	**Yes.** Existing covered activities occur in suitable habitat.
beach spectaclepod *Dithyrea maritima*	ST, CRPR 1B.1	CDPR and CNDDB records at North Oso Flaco, Oso Flaco Lake and south of Oso Flaco Lake from CDPR and CNDDB records.	**Yes.** Existing covered activities occur in suitable habitat.
Blochman's leafy daisy *Erigeron blochmaniae*	CRPR 1B.2	Locally common and widespread throughout the HCP area.	**Yes.** Existing covered activities occur in suitable habitat.
suffrutescent wallflower *Erysimum suffrutescens*	CRPR 4.2	Locally common and widespread throughout the HCP area.	**Yes.** Existing covered activities occur in suitable habitat.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	CRPR 1B.1	CDPR records in the Pismo Dunes Natural Preserve, in Pismo State Beach and in the Phillips 66 Leasehold.	**Yes.** Existing covered activities occur in suitable habitat.
Southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	CRPR 4.2	CDPR records in the Meadow Creek, Pismo Dunes Natural Preserve and in the vegetation islands.	**Yes.** Existing covered activities occur in suitable habitat.
blushing layia *Layia erubescens*	CRPR 1B.2	CDPR records in the upland habitats of Phillips 66 Leasehold in 2022.	**Yes.** Existing covered activities occur in suitable habitat
fuzzy prickly phlox *Linanthus californicus* ssp. *tomentosus*	CRPR 4.2	CDPR records in the Pismo Dunes Natural Preserve, Phillips 66 Leasehold, and the backdunes of South Oso Flaco.	**Yes.** Existing covered activities occur in suitable habitat.

Table 6-3. Special-Status Plant Species in the HCP Area

Species	Listing Status	Species Occurrence in HCP Area	Potentially Affected by Existing Covered Activities
Nipomo Mesa lupine *Lupinus nipomensis*	FE, SE, CRPR 1B.1	SLO County Land Conservancy surveys and CNDDB records in the eastern part of the Phillips 66 Leasehold.	**Yes.** Existing covered activities occur in suitable habitat areas.
dunedelion *Malacothrix incana*	CRPR 4.3	CDPR records at the Pavilion Hill vegetation island, 7.5 revegetation area, and near Oso Flaco Lake and Creek.	**Yes.** Existing covered activities occur in suitable habitat.
crisp monardella *Monardella undulata* ssp. *crispa*	CRPR 1B.2	CDPR 2022 Vegetation Mapping and CNDDB records locally common and widespread within the vegetation island habitats and at the edges of other vegetation within the HCP area.	**Yes.** Existing covered activities occur in suitable habitat.
San Luis Obispo monardella *Monardella undulata* ssp. *undulata*	CRPR 1B.2	CDPR and CNDDB records in the Pismo Dunes Natural Preserve, the southern part of the Phillips 66 Leasehold, and in the southern backdunes of south Oso Flaco.	**Yes.** Existing covered activities occur in suitable habitat.
California spineflower *Mucronea californica*	CRPR 4.2	CDPR records in the Pismo Dunes Natural Preserve, Phillips 66 Leasehold, and South Oso Flaco.	**Yes.** Existing covered activities occur in suitable habitat.
Gambel's watercress *Nasturtium gambelii*	FE, ST, CRPR 1B.1	CDPR records at Oso Flaco Lake.	**Yes.** Existing covered activities occur in suitable habitat.
coastal woolly-heads *Nemacaulis denudata* var. *denudata*	CRPR 1B.2	Observed as recently as 2022. Documented along the Oso Flaco Lake service road and the within the BBQ Flat and Eucalyptus Tree vegetated islands.	**Yes.** Existing covered activities occur in suitable habitat.
south coast branching phacelia *Phacelia ramosissima* var. *austrolitoralis*	CRPR 3.2	Observed as recently as 2022. Common throughout HCP area in dune scrub habitat.	**Yes.** Existing covered activities occur in suitable habitat.
Hickman's popcornflower *Plagiobothrys chorisianus* var. *hickmanii*	CRPR 4.2	CDPR records at four vegetation islands, in the Phillips 66 Leasehold, and at Maidenform.	**Yes.** Existing covered activities occur in suitable habitat.
sand almond *Prunus fasciculata* var. *punctate*	CRPR 4.3	Observed as recently as 2022. Common within upland habitats of the stabilized backdunesin the Phillips 66 Leasehold.	**Yes.** Existing covered activities occur in suitable habitat.
Blochman's ragwort *Senecio blochmaniae*	CRPR 4.2	Locally common and widespread throughout HCP area.	**Yes.** Existing covered activities occur in suitable habitat.

Table 6-3. Special-Status Plant Species in the HCP Area			
Species	**Listing Status**	**Species Occurrence in HCP Area**	**Potentially Affected by Existing Covered Activities**
[1] Listing Status Key: FE – Federal Endangered SE – State Endangered ST – State Threatened			

6.2.4 Wildlife Movement and Nurseries

Wildlife corridors play an important role in countering habitat fragmentation. A wildlife corridor is a landscape element that serves as a linkage between historically connected habitats or landscapes that are otherwise separated and is meant to provide avenues along which wildlife can travel, migrate, and meet mates; plants can propagate; genetic interchange can occur; populations can move in response to environmental changes and natural disasters; and individuals can re-colonize habitats from which populations have been locally extirpated. Corridors can consist of a sequence of stepping-stones across the landscape (i.e., discontinuous areas of habitat such as isolated wetlands and roadside vegetation), continuous lineal strips of vegetation and habitat (e.g., riparian strips and ridge lines), or they may be parts of larger habitat areas of known or likely importance to local wildlife.

Nursery sites are locations within the range of the species where the conditions are favorable for wildlife to successfully raise young each year and maintain population levels.

The 5,005-acre HCP area includes ample area for wildlife movement and nursery sites along the coast, particularly when viewed in the greater setting. The HCP area is bounded by the City of Pismo Beach to the north, the Guadalupe-Nipomo Dunes NWR to the south, urban and agricultural land to the east, and the Pacific Ocean to the west. Pismo State Beach and Oceano Dunes SVRA contain approximately 25 percent of the 18-mile linear shoreline of the overall Guadalupe-Nipomo Dunes complex. The Guadalupe-Nipomo Dunes complex extends from Pismo Beach south to Point Sal and roughly from State Route 1 to the Pacific Ocean in San Luis Obispo and Santa Barbara counties. The Guadalupe-Nipomo Dunes complex is a relatively intact coastal dune and dune scrub ecosystem varying in width from 2 to 5 miles.

The Guadalupe-Nipomo Dunes complex, including the HCP area, provides movement opportunities and nursery sites for terrestrial wildlife over a large swath of intact coastal dunes and dune scrub habitat. In addition, the HCP area falls within the Pacific flyway migration route and provides a stopover site for numerous migrating birds that require food and resources along the shoreline, as well as areas where they can roost and loaf using wrack as a wind block. Creeks within the HCP area provide wildlife movement corridors and nursery sites for aquatic wildlife, including special-status species such as tidewater goby, steelhead, WSF, CRLF, and SWPT. The HCP area is bordered by the ocean to the west, which comprises a vast movement corridor for saltwater fish, seabirds, marine mammals, and other marine species, as well as nursery sites for marine species. Wildlife movement toward the east is restricted by developed agricultural and urban land.

Existing and proposed new activities would impact wildlife movement and nursery sites. Impacts to wildlife movement and nursery sites from existing covered activities are described in more detail in EIR Appendix D. Impacts to wildlife movement and nursery sites from proposed new covered activities are described in more detail in EIR section 6.3 below.

6.2.5 Sensitive Natural Communities, including Riparian

Natural communities include vegetation communities designated by USFWS, CDFW, Coastal Commission, and other federal, state, or local agencies. There are numerous CDFW sensitive natural communities within the HCP area, including California coastal cypress (*Hesperocyparis pigmaea*, *abramsiana*, *macrocarpa*, *goveniana*) woodland, black cottonwood forest and woodland, dune mat (*Abronia latifolia – Ambrosia chamissonis*), silver dune lupine (*Lupinus chamissonis*) – mock heather scrub (*Ericameria ericoides*), silver dune lupine, mock heather scrub, California buckthorn (*Frangula californica* ssp. *californica*) scrub, Arroyo willow (*Salix lasiolepis*) thickets, salmon berry (*Rubus spectabilis*) – wax myrtle (*Morella californica*) scrub, giant coreopsis (*Coreopsis gigantea*) scrub, California blackberry (*Rubus ursinus*) shrubland, California bulrush (*Schoenoplectus californicus*) marsh, salt rush swales (*Juncus lescurii*), and pickleweed (*Sarcocornia pacifica*) mats.

Critical habitat designated by the USFWS is present within the HCP area, including for SNPL, tidewater goby, and La Graciosa thistle. There is also proposed critical habitat for monarch butterfly.

The HCP area also contains several ESHAs as defined by the City of Grover Beach LCP (City of Grover Beach 2014), City of Pismo Beach LCP (City of Pismo Beach 2014), and San Luis Obispo County LCP (County of San Luis Obispo 2008). Specifically, the HCP area ESHAs include the intertidal zone, sand dunes, coastal streams (e.g., Arroyo Grande Creek, Pismo Creek, Meadow Creek, and Oso Flaco Creek), riparian woodland, perennial freshwater marsh, freshwater lakes (e.g., Pismo Lake and Oso Flaco Lake), wetlands, and habitat that supports threatened and endangered species.

Existing and proposed new activities would impact sensitive natural communities. Impacts to sensitive natural communities from existing covered activities are described in more detail in EIR Appendix D. Impacts to sensitive natural communities from proposed new covered activities are described in more detail in EIR section 6.3 below.

6.2.6 Jurisdictional Waters, including Wetlands

Jurisdictional waters are waters of the U.S. and State that are subject to the jurisdiction of the federal government under the CWA and the state government under the CWA, Porter Cologne Act, and the California Coastal Act. See the regulatory setting in EIR section 6.1 for more detailed explanation. Jurisdictional waters essentially include all aquatic features, although the extent of jurisdiction varies by agency. Wetlands are defined by the federal government as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b)).

Aquatic features in the HCP area include Pismo Creek, Carpenter Creek, Meadow Creek, Arroyo Grande Creek, and Oso Flaco Creek. The HCP area also contains Oso Flaco Lake, Pismo Lake, and occasional slack lakes in the dunes. Wetlands can occur in or near any of these aquatic features in any particular year. Wetland habitat is perennially present along the margins of the lakes. Wetland alliances also occur in the vegetated islands, the foredunes and backdunes, in South Oso Flaco, in the Pismo State Beach area, the North Beach Campground area, and the Phillips 66 Leasehold. According to CDPR vegetation conducted in 2022 and updated in 2024, the HCP area includes the following wetland alliances: arroyo willow thickets (449.4 acres), salmon berry – wax myrtle scrub (31.8 acres), California bulrush marsh (40.9 acres), salt rush

swales (5.6 acres), cattail marshes (2.5 acres), pickleweed mats (1.2 acre), and sometimes black cottonwood forest and woodland (11.9 acres) and sea rocket sands (12.2 acres).

Existing activities impact jurisdictional waters as described in EIR Appendix D. Impacts to jurisdictional waters from proposed new covered activities are described in more detail in EIR section 6.3 below.

6.2.7 Effects of Existing Activities

Almost all of the existing park operations as presented in Project Description section 2.4.2.1 and listed in Table 2-4 have known effects on biological resources within the park units. Effects of these existing covered activities on special-status species fall into four categories: mortality or injury, disturbance, habitat reduction, and beneficial effects, as defined below. Effects may be direct or indirect.

- **Mortality or Injury.** The covered activity has directly or indirectly caused mortality or injury to a species in the past or has the potential to do so within the permit term of the HCP due to the nature of the activity. Examples include, but are not limited to, species being struck by a vehicle or being stepped on by a pedestrian or domestic animal. Indirect impacts include indirect negative effects on special-status species from covered activities, such as an increase in the likelihood of predation or disease, or exposure to pollutants.
- **Disturbance.** The covered activity has caused disturbance to a species in the past or has the potential to do so within the permit term of the HCP due to the nature of the activity. Disturbance means causing stress to an individual or group of species such that they alter their natural behavior, potentially resulting in reduced breeding or foraging success, or even in some cases injury or mortality of one or more individuals. Disturbance also includes short-term impacts to species habitat, such as a temporary increase in turbidity in aquatic habitats.
- **Habitat Impacts.** The covered activity has resulted in a permanent reduction or alteration of species habitat in the past or has the potential to do so within the permit term of the HCP due to the nature of the activity. Examples of permanent habitat impacts include, but are not limited to, the reduction in habitat quality from motorized vehicle recreation or the permanent loss of habitat from covered activities.
- **Beneficial Effects.** Covered activities with beneficial effects reduce the likelihood of species mortality of injury from other covered activities, protect species breeding and foraging habitat, and/or aid in the maintenance or recovery of species populations. Examples include the breeding season exclosures and monitoring for SNPL and CLTE, the CRLF surveys, the tidewater goby and salmonid surveys, and the listed plant management activities.

CDPR manages the effects of existing covered activities through implementing many AMMs such as recreation use restrictions, protective fencing of sensitive areas, habitat enhancements, enforcement patrols, and monitoring. Management measures employed by CDPR for the conservation of covered species are identified as AMMs listed in EIR Appendix B and briefly described below in EIR section 6.2.8.

Special-status species potentially affected by existing activities are described above in EIR section 6.2.3 and shown in Table 6-2 and Table 6-3.

6.2.8 Avoidance and Minimization Measures (AMMs)

The proposed HCP incorporates AMMs as project components that are designed to minimize effects on the covered species and their environment. The application of AMMs is presumed, and therefore they are not considered mitigation measures but rather resource protection measures that are part of the proposed HCP. Thus, the AMMs are considered to be in place when determining the level of impact, as described in the biological impact assessment.

A summary listing of HCP AMMs is presented in EIR Appendix B. There are 146 AMMs for protecting SNPL, 129 AMMs for CLTE, 65 AMMs for SWPT, 66 AMMs for CRLF, 64 AMMs for WSF, 66 AMMs for tidewater goby, and 39 AMMs for the covered plant species. These measures are designed to protect the covered species from potentially significant impacts caused by the covered activities.

Fish. The HCP includes AMMs specifically for the protection of tidewater goby, including, but not limited to, visitor and park personnel education, signage, minimizing/excluding human and dog activities in tidewater goby habitat, seasonal closures, enforcement (particularly during periods of high use), minimizing disturbance during surveys for fish and amphibians, minimizing erosion, assuring sustained water flows, and pre-construction surveys.

Amphibians and Reptiles. The HCP specifies AMMs to protect SWPT, CRLF, and WSF, including, but not limited to, visitor and employee education, posted speed limits, trash management and predator control, monitoring of creek crossings, pre-activity surveys and relocation or postponement of work as needed, worker environmental training, decontamination of equipment, non-native vegetation management, controlling activities that can cause turbidity, biological monitoring during construction and maintenance activities, timing construction/maintenance to avoid the breeding season, and control of pesticide use. The AMMs specifically target Arroyo Grande Creek, Carpenter Creek, Pismo Creek, Arroyo Grande Creek Lagoon, Oceano Lagoon, Pismo Lagoon, Oso Flaco Creek, Pismo Lake, dune lakes and wetlands, the campgrounds and golf course (maintenance in uplands), riparian areas, and areas subject to cultural resources management.

Birds. The HCP specifies AMMs to protect SNPL and CLTE, including, but not limited to, visitor and employee education, posted speed limits, trash management and predator control, seasonal exclosure and single-nest exclosure fencing, monitoring, habitat enhancement, and no-disturbance buffers. The AMMS target areas where SNPL and CLTE are known to nest along the shoreline but also include other suitable habitat areas where SNPL and CLTE could occur. HCP AMMs for SNPL and CLTE may also provide protection for migrant and winter resident birds, as well as some other nesting birds (e.g., ground nesting birds such as California horned lark).

Plants. The HCP specifies AMMs to protect covered plants in the HCP area, including, but not limited to, visitor and employee education, habitat restoration, and pre-activity surveys. HCP AMMs for covered plants may also provide protection for other special-status plants and some wildlife species that occur within similar habitats (e.g., coast horned lizard, Northern California legless lizard).

6.3 PROJECT IMPACTS

The HCP includes existing, new proposed, and potential future covered activities. The majority of HCP covered activities presently occur in the HCP area and have been occurring for decades. Table 2-4 identifies those activities that are ongoing, and those that are new activities or may be considered in the future. Biological effects of ongoing existing covered activities are part of the

environmental setting as described in EIR section 6.2.7 and EIR Appendix D. The HCP does not propose changes to these existing activities; therefore, there are no new impacts associated with these existing covered activities; these activities do not change the environmental baseline and therefore are not further considered in this impact analysis.

CDPR proposes new activities identified in the HCP that would modify park operations (EIR section 2.4.2.2). The biological impacts of these changes to park operations are addressed in this section. The impact analysis assumes that the AMMs included in the HCP are incorporated into the proposed new covered activities.

The HCP also includes potential future projects contemplated by CDPR (EIR section 2.4.2.3). These projects are not specifically proposed now for implementation but may be considered by CDPR in the future. Some new Dust Control Program activities are already planned as part of the ARWP. All of these projects would be subject to separate environmental review and approval processes as described in EIR section 2.5.3. These potential future activities are addressed in the cumulative impact analysis in EIR section 6.4. The cumulative impact analysis assumes that the AMMs included in the HCP are incorporated into these potential future covered activities.

6.3.1 Thresholds of Significance

Consistent with the CEQA Guidelines Appendix G Checklist, the project would have a significant impact to biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

As described in section 2.4.2.2, the proposed new covered activities are limited to SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activities and other non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic predator control (CA-17), mechanical trash removal (CA-21), reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR's use of UAS (CA-52).

The proposed action is adoption of a new HCP governing the Pismo State Beach and Oceano Dunes SVRA conservation program and approval of specific activities identified in the HCP that

CDPR proposes for implementation. The proposed new covered activities do not conflict with any local policies protecting biological resources nor do they conflict with any other HCP. There is no HCP, NCCP, or other approved local, regional, or state HCP in effect in the HCP area. Accordingly, these impacts are not discussed further in this EIR.

6.3.2 Special-Status Species

The following analysis addresses impacts to special-status species caused by new activities (CA-12b, CA-13, CA-14, CA-16, CA-17, CA-21, CA-50, and CA-52) proposed by CDPR. An overview of the risk of impacts of these activities on special-status species is presented in Table 6-4 and Table 6-6. Risk is defined as both the likelihood and magnitude of effect. As a result, risk is weighing both the frequency and severity of the impact. Therefore, even though an impact may be expected to occur, it may not result in a high or moderate risk if the impact is considered infrequent or is not severe. The risks of impact are classified as high (H), moderate (M), low (L), no (N), and/or beneficial impact (B). These classifications are defined in the tables. Per the project impact analysis presented in EIR section 6.2.3 the proposed new covered activities (CA-12b, CA-13, CA-14, CA-16, CA-17, CA-21, CA-50, and CA-52) would not have impacts on monarch butterfly, steelhead, southern sea otter, marsh sandwort, Nipomo Mesa lupine, and Gambel's watercress, and are unlikely to impact Coast Range newt, two-striped garter snake, wood stork, golden eagle, California black rail, western yellow-billed cuckoo, olive-sided flycatcher, purple martin, yellow-breasted chat, coastal goosefoot, Douglas's spineflower, dune larkspur, Kellog's horkelia, blushing layia, fuzzy prickly phlox, Nipomo Mesa lupine, San Luis Obispo County monardella, coastal woolly-heads, and sand almond; therefore, these species are dismissed from further discussion in this EIR. Impacts of potential future covered activities are addressed in the cumulative analysis in EIR section 6.4.

Table 6-4. Risk of Impact Occurrence to Special-Status Animals from Proposed New Covered Activities[1]

Covered Activity	HCP-Covered Animals						Non-Covered Animals						
	Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater Goby	California (Coast) Horned Lizard	Northern California Legless Lizard	Burrowing Owls	Nesting Birds[2]	Wintering/ Migratory Birds	Roosting Bats	American Badger
Natural Resource Management													
CA-12b SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities	H, B[3]	L	N	N	N	N	N	N	N	L	N	N	N
CA-13 Tidewater Goby and Salmonid Surveys – Stranded Tidewater Goby Salvage	L	L	L	L	L	M, B	N	N	N	N	L	N	N
CA-14 Monitoring and Management for Listed Herpetological Resources – SWPT and WSF Monitoring	L	L	M, B	L	M, B	L	N	N	N	L	L	N	N
CA-16 Habitat Restoration Program – Dune Slack Restoration	N	N	M, B	M, B	M, B	N	L	L	N	L	L	L	N
CA-17 Invasive Plant and Animal Control – Invasive Aquatic Species Predator Control	L	L	M, B	M, B	M, B	L, B	N	N	N	L	L	N	N
Park Maintenance													
CA-21 General Facilities Maintenance – Mechanical Trash Removal	M	L	L	L	L	N	L	L	L	L	L	N	N
Other Activities													
CA-50 Reduction of the Boneyard Exclosure and 6 Exclosure	H	H	N	N	N	N	L	L	N	L	L	N	N
CA-52 CDPR UAS Use for Park Activities	L, B	L, B	N	N	N	N	N	N	L	M	L	N	L

[1] If both adverse and beneficial impacts can occur, both are shown as defined below. The discussion for each species within this section details the individual impacts.

High (H). The covered activity has in the past or is highly likely in the HCP permit term to cause direct mortality, injury, or reproductive failure of one or more individuals of a covered species in most years (more than once every 2 years); and/or a degree of disturbance or indirect impacts that is highly likely to result in mortality, injury, or reproductive failure of one or more individuals of a covered species in most years. Permanent loss or reduction in quality of 1 acre or more of primary breeding habitat of one or more covered species also falls into this impact level. In the case of **beneficial (B)** effects, this category applies to covered activities that have a primary purpose of aiding in the protection and recovery of the target covered species, including protective fencing, surveys and monitoring, habitat enhancement, predator or invasive species control, etc.

Moderate (M). The covered activity has in the past, or may possibly in the HCP permit term, cause direct mortality, injury, or reproductive failure of one or more individuals of a covered species in some years (not more than once every 2 years); and/or a degree of disturbance or indirect impacts that could cause mortality, injury, or reproductive failure of one or more individuals of a covered species in some years. Permanent loss or reduction in quality of 1 or more acre of secondary (dispersal, foraging, aestivation, roosting, etc.) habitat of one or more covered species also falls into this impact level. In the case of **beneficial (B)** effects, this category applies to covered activities that have a purpose of restoring and protecting natural resources generally but not necessarily a specific covered species, which have a secondary beneficial effect to a covered species.

Low (L). The covered activity is unlikely to cause mortality, injury, or reproductive failure; however, the covered activity will likely result in a degree of disturbance or indirect impacts that could disrupt the normal behavior patterns (e.g., breeding, feeding, sheltering) of one or more individuals of a covered species. Permanent loss or reduction in quality of 1 or more acre of tertiary (rarely used) habitat or temporary disturbance to habitat of one or more covered species also falls into this impact level. In the case of beneficial (B) effects, this category applies to covered activities that do not have a purpose related to natural resources protection but nevertheless have some degree of beneficial effect to a covered species.

No Impact (N). The covered activity has not caused mortality, injury, or reproductive failure of a covered species in the past and does not have the potential to do so within the permit term of the HCP. The covered activity has not caused disturbance or indirect impacts in the past and is unlikely to during the permit term. The covered activity would also have no permanent or temporary impacts to covered species habitat. There are also no beneficial effects at the no impact level.

[2] Nesting birds includes both common and special-status nesting bird species.

[3] Covered activities with beneficial effects may also have a level of risk for direct or indirect mortality/injury or disturbance to occur; however, the effect of the existing covered activity has an overall net benefit to the species or its associated habitat(s).

Table 6-5. Risk of Impact Occurrence to Special-Status Plants from Proposed New Covered Activities[1]

Covered Activity	Red sand verbena	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas' spineflower	**Surf thistle[2]**	**La Graciosa thistle[2]**	Paniculate tarplant	Dune larkspur	**Beach spectacle pod[2]**	Blochman's leafy daisy	Suffrutescent wallflower	Kellog's horkelia	Southwestern spiny rush	Blushing layia	Fuzzy prickly phlox	**Nipomo Mesa lupine**	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	Coastal woolly-heads	South Coast Branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's ragwort
Natural Resource Management																										
CA-12b SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CA-13 Tidewater Goby and Salmonid Surveys – Tidewater Goby Salvage	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CA-14 Monitoring and Management for Listed Herpetological Resources – SWPT and WSF Monitoring	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CA-16 Habitat Restoration Program – Dune Slack Restoration	N	L	L	L	L	N	L, B	L	L	N	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	N
CA-17 Invasive Plant and Animal Control – Invasive Aquatic Species Predator Control	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Park Maintenance																										
CA-21 General Facilities Maintenance – Mechanical Trash Removal	L	L	L	N	N	L	N	N	N	L	L	L	N	L	N	N	N	L	L	N	L	N	L	N	N	L
Other Activities																										
CA-50 Reduction of the Boneyard Exclosure and 6 Exclosure	L	L	L	N	N	L	N	N	N	L	L	L	N	L	N	N	N	L	L	N	L	N	L	N	N	L
CA-52 CDPR UAS Use for Park Activities	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

[1] Plants in Table 6-3 not listed in this table would not be impacted by proposed new covered activities. These include **marsh sandwort** and **Gambel's watercress**

[2] Species listed in bold are covered in the HCP.

[3] Covered activities with beneficial effects may also have a level of risk for direct or indirect mortality/injury or disturbance to occur; however, the effect of the existing covered activity has an overall net benefit to the species or its associated habitat(s).

6.3.2.1 Western Snowy Plover

SNPL and CLTE Management (CA-12b) – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities. SNPL chick and egg capture requires handling chicks and/or eggs at high risk of being injured or killed by covered activities to relocate them to an authorized wildlife facility. This activity would result in increased stress and vigilance of chicks while monitors attempt to capture the chicks. In addition, captive rearing is not always successful, and eggs or chicks may not survive in the captive facility. Despite this potential outcome, captive rearing has been documented as successful in a few studies (Neuman, et al. 2013) (Powell and Cuthbert 1993) (Powell, Cuthbert and Wemmer, et al. 1997) and, in studies where survival of captive-reared young is low, proponents of the technique point out that even small numbers that survive and breed indicate some success toward conservation of the species since otherwise the eggs or chicks would not have survived (Neuman, et al. 2013) (Roche, Cuthbert and Arnold 2008).

In the past (2003-2023), under the ongoing SNPL and CLTE management program, approximately 147 SNPL eggs and 38 SNPL chicks within the HCP area have been salvaged when they were found abandoned or injured. This ongoing salvage of eggs and chicks is included in the HCP as AMM 92 and described in EIR Appendix D. A portion of these individuals has survived to fledging age in a captive-rearing facility. These fledglings have been released back into the wild, and many were documented as integrating into the wild SNPL population and breeding, although not necessarily within the HCP area. As a result, capturing SNPL eggs and chicks that are threatened by recreation activities and other non-covered species management activities as proposed under AMM 22 would be beneficial to any chicks and eggs removed since otherwise the eggs and chicks would not have survived. Furthermore, new SNPL AMM 22 establishes a threshold (i.e., 8 eggs and 8 chicks) at which point CDPR would contact the USFWS and discuss appropriate AMMs (e.g., expanding the exclosure along the shoreline to provide additional protected foraging habitat, increasing monitoring along the shoreline, increasing signage in the breeding area) to ensure additional take does not occur from covered activities not related to covered species management (e.g., motorized recreation, new proposed activities). As a result, the impact would be ***less than significant***.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. Stranded tidewater goby salvage could have similar impacts on SNPL as ongoing tidewater goby and salmonid surveys. SNPL rarely occur at the Pismo Creek Estuary or at Oso Flaco Lake, and therefore tidewater goby salvage at these locations would be unlikely to impact SNPL. SNPL have been observed nesting adjacent to Arroyo Grande Creek in the past, but this is an infrequent occurrence. SNPL can also occur near Oso Flaco Creek when it flows to the Pacific Ocean. If SNPL are nesting immediately adjacent to the creeks or lagoon, then tidewater goby salvage could result in disturbance, vehicular collision, or crushing of nests or chicks. In addition, tidewater goby salvage could disturb foraging or roosting SNPL near Arroyo Grande Creek and estuary during the nesting season. Given that tidewater goby salvage would be infrequent and short in duration, salvage staff includes personnel experienced with conducting fisheries surveys within SNPL habitat, and SNPL infrequently attempt to nest in the Arroyo Grande Creek area or near the lagoon, the likelihood of tidewater goby salvage resulting in effects on nesting, foraging, or roosting SNPL is low. CDPR would also continue to implement the SNPL and CLTE management program in the HCP area to reduce impacts to SNPL. Therefore, monitors would continue to conduct daily searches for nests in potential nesting habitat that is in the riding area,

including the Arroyo Grande Creek area. In addition, tidewater goby salvage would not be conducted if it posed a risk to SNPL nests or broods. As a result, effects on SNPL from tidewater goby salvage during the SNPL breeding season would be ***less than significant***.

Non-breeding season SNPL flocks form near the Arroyo Grande Creek mouth and pooling water. If present during tidewater goby salvage, they would likely be flushed. However, any impacts are temporary and relatively short in duration and SNPL flocks typically relocate to another location or adapt to the minor disturbance. In addition, tidewater goby salvage would be conducted by personnel experienced with conducting surveys within SNPL habitat. As a result, effects on SNPL flocks from salvage efforts during the non-breeding season would be ***less than significant***.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. Potential impacts to SNPL from SWPT and WSF monitoring would be similar to existing impacts from ongoing CRLF surveys, and many survey locations are outside of SNPL habitat. Herpetological survey locations at Oso Flaco Lake, Little Oso Flaco Lake, Oceano Lagoon, Pismo State Beach Golf Course, and Meadow Creek and lagoon are located outside suitable SNPL nesting, foraging, and roosting habitat and thus do not affect SNPL. Herpetological surveys can occur within Pismo Creek and estuary; however, SNPL have only been observed nesting near Pismo Creek estuary one time (in 2009). Therefore, impacts to SNPL during the breeding season at Pismo Creek estuary are unlikely.

Herpetological surveys in lower Arroyo Grande Creek and Estuary can occur year-round, including during the SNPL breeding season. SNPL have been observed nesting adjacent to Arroyo Grande Creek in the past, but this is an infrequent occurrence. If SNPL are nesting immediately adjacent to the creek or lagoon, then CRLF/SWPT surveys can result in disturbance, vehicular collision, or crushing of nests or chicks. In addition, CRLF/SWPT surveys can disturb foraging or roosting SNPL near Arroyo Grande Creek and estuary during the breeding season. Given that the surveys are short in duration and that SNPL infrequently attempt to nest in the Arroyo Grande Creek area or near the lagoon/estuary, the likelihood of these surveys resulting in effects on nesting SNPL is low. CDPR will also continue to implement the SNPL and CLTE management program in the HCP area to ensure that these impacts are reduced. Therefore, monitors will continue to conduct daily searches for nests in potential nesting habitat in the Arroyo Grande Creek area. In addition, herpetological surveys are not conducted if there is concern of disturbance to SNPL nests or broods. WSF surveys would be conducted during early winter to early spring rain events and would not affect breeding SNPL. Furthermore, herpetological survey staff includes personnel experienced with conducting surveys within SNPL habitat. As a result, effects on SNPL from herpetological surveys during the breeding season would be ***less than significant***.

Non-breeding season SNPL flocks form near the Arroyo Grande Creek river mouth and pooling water. If present during herpetological surveys, it is likely they would be flushed. However, any impacts are temporary and relatively short in duration, and SNPL flocks typically relocate to another location or adapt to the minor disturbance. In addition, herpetological surveys are conducted by personnel experienced with conducting surveys within SNPL habitat. As a result, effects on SNPL flocks from such surveys during the non-breeding season would be ***less than significant***.

Habitat Restoration Program (CA-16) – Dune Slack Restoration. Restoration of Jack Lake and/or Surprise Lake would be in SNPL tertiary habitat and therefore would have ***no impact*** on SNPL.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Species Predator Control. The potential impacts of invasive aquatic species predator control on SNPL are similar to the impacts of ongoing invasive plant and animal control when it occurs in or near aquatic habitats, and such impacts are expected to be minimal. Aquatic species predator control would not occur in or near SNPL breeding exclosures. Aquatic species predator control can occur in areas that may disturb roosting or foraging SNPL during the breeding season, such as near the Pismo Creek or Arroyo Grande Creek and Estuary. Aquatic species predator control can disturb SNPL adults and deter them from foraging and/or roosting in the area. To reduce impacts to foraging and roosting adults from aquatic species predator control, CDPR will continue to implement the SNPL and CLTE management program. Therefore, any aquatic species predator control that needs to be conducted during the breeding season in or near SNPL foraging or roosting habitat will continue to be conducted when SNPL are not observed to be present, or when experienced staff determine the activities can be conducted without unnecessary disturbance to SNPL. Effects on wintering SNPL would be minimal since aquatic species predator control is not typically conducted in areas where wintering SNPL occur, and any activities that are conducted near wintering SNPL are short in duration. As a result, potential impacts on SNPL from aquatic species predator control would be ***less than significant***.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal. Mechanical trash removal would only occur above the wrack line and would be set back from creeks, riparian areas, and foredunes. Mechanical trash removal would not occur within vegetated areas or within any fenced closed areas where SNPL nesting occurs (such as the Southern Exclosure or 48-acre foredune area) but would occur within favorable SNPL nesting and wintering habitat (i.e., primary and secondary habitat). Mechanical trash removal would be subject to SNPL AMMs 102–111, which include surveying the area for SNPL presence prior to mechanical trash removal and use of a biological monitor. Implementation of these measures would prevent the potential for mortality or injury of SNPL from equipment operation, and mortality and injury impacts would be ***less than significant***.

Nesting SNPL: Mechanical trash removal activities are designed to avoid known SNPL nesting areas (such as the Southern Exclosure or 48-acre foredune area). Qualified biologist/Natural Resource staff would inspect and approve trash removal areas prior to each mechanical trash removal project, remaining on site or immediately available for monitoring. If any disturbances are observed to nesting, foraging, brooding, or roosting SNPL, appropriate avoidance measures would be determined at the discretion of the approved staff. Avoidance measures may include a delay in starting the activity, finding an alternate site, or canceling the activity altogether. These measures would avoid disturbing nesting SNPL, including avoiding temporarily flushing brooding adults away from nests or chicks or flushing chicks from the nest and separating them from the attending adult. Therefore, potential impacts to nesting and brooding SNPL from mechanical trash removal would be ***less than significant.***

Wintering SNPL: SNPL are known to winter in areas where mechanical trash removal may occur. If SNPL are foraging or roosting in areas where mechanical trash removal occurs, they could be temporarily disturbed by the activities and/or precluded from foraging and roosting in these areas. Mechanical trash removal activities have been explicitly designed to avoid flushing any roosting or foraging SNPL. Activities have also been designed to avoid native beach plants, beach wrack, and any impacts to the natural physical and biological uses of beach wrack. As a result, disturbance-related impacts on foraging and/or roosting wintering SNPL would be ***less than significant***.

Habitat Impacts (Including SNPL Critical Habitat): Mechanical trash removal could affect favorable SNPL nesting habitat (i.e., primary and secondary habitat) in the riding area by altering dune composition and topography. Specifically, mechanical trash removal could reduce micro-topography and/or organic surface materials (e.g., driftwood and campfire charcoal) that are scattered throughout the HCP area above the wrack line. Most mechanical trash removal would be conducted to remove litter in areas where recreation activities have been concentrated and the substrate is already highly disturbed. These areas have always supported marginally suitable SNPL nesting habitat due to the ongoing high level of recreation (i.e., presence of humans, pets, vehicles, and/or human attracted predators).[26] Mechanical trash removal would not be conducted at or below the wrack line; therefore, these activities are not anticipated to impact any physical and biological features related to shoreline habitat areas for SNPL feeding (i.e., foraging habitat) at or below the wrack line. As a result, this effect would be minimal.

Although mechanical trash removal would only occur above the wrack line, mechanical trash removal could remove scattered debris (e.g., driftwood and dried kelp) from the previous winter wrack line still present in the beach area above the currently active wrack line, which is likely important habitat for wrack-associated beach invertebrates. This material may not have time to naturally develop again, and species richness, abundance, and biomass of wrack-associated invertebrates that are important SNPL prey resources could decline. As a result, wintering SNPL could be impacted by a reduced prey source. Mechanical trash removal areas would not be treated more than twice a year unless additional treatments are necessary to address excessive trash (for example after a storm or heavy public use period). CDPR would implement AMM 111, which includes implementing a study to determine the impact of mechanical trash removal on wrack-associated invertebrates. If a substantial decline in invertebrates is observed, CDPR would implement additional measures to reduce the impact, such as reducing the frequency of mechanical trash removal and/or reducing the mechanical trash removal locations. As a result, mechanical trash removal would have a ***less than significant*** impact on SNPL foraging opportunities and the quality of their habitat.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50).[27] Reduction of the Boneyard Exclosure and 6 Exclosure is not expected to result in additional impacts to adult and/or juvenile SNPL beyond those described in Appendix D for motorized recreation (CA-1) and pedestrian activities (CA-3) since SNPL AMMs would be implemented, as appropriate, including installing single-nest exclosures or bumpouts around any SNPL nest within the open riding area (e.g., AMMs 1–31, 35, 43–45, 47–51), and any SNPL adults and/or juveniles found outside an exclosure would typically be expected to fly out of harm's way.

Elimination of East Boneyard Exclosure (approximately 47 acres) and incremental elimination of 6 Exclosure (62 acres) could result in the permanent loss of up to 109 acres of protected breeding habitat. This reduction represents approximately one-third of the 368 acres of SNPL breeding habitat currently protected by the Southern Exclosure (300 acres) and North Oso Flaco Exclosure (68 acres).

[26] USFWS acknowledged that habitat at Oceano Dunes SVRA was already degraded at the time of listing by recreation activities, but it did not preclude the USFWS from designating it as critical habitat (USFWS 2012a).

[27] CDPR may reduce the exclosure via other configurations, such as east-to-west. However, the north-to-south configuration is anticipated to be the most impactful scenario to SNPL due to the simultaneous loss of protected nesting and foraging habitat. Therefore, for purposes of analysis this section focuses on the worst-case scenario (i.e., a north-to-south, 328-foot or approximately 7.5-acre reduction).

Although the East Boneyard Exclosure is considered suitable habitat for SNPL, it has supported only 11 SNPL nests since 2005, and none since 2019, indicating that this area may not provide ideal nesting habitat for SNPL and they are thus unlikely to nest in this area. Any nest that was established in this area once the exclosure fencing is removed would be protected by a single-nest exclosure, and a 100-foot buffer would be implemented as described in the SNPL AMMs. SNPL are known to nest within the West Boneyard Exclosure, and the East Boneyard Exclosure has provided a buffer from any recreational disturbance in the open riding area. Removal of the East Boneyard Exclosure would thus result in motorized recreation activities adjacent to the West Boneyard Exclosure where SNPL could nest. However, if any SNPL within the West Boneyard Exclosure are observed to be disturbed by recreation and/or new travel patterns within the former adjacent East Boneyard Exclosure, a bumpout would be installed as described in the SNPL AMMs to ensure that disturbance in this area is minimized. As a result, removal of the East Boneyard Exclosure would have a ***less-than-significant*** impact on nesting SNPL.

Currently, the Boneyard gate is inaccessible during the SNPL breeding season since it is enclosed within the East Boneyard Exclosure. If the East Boneyard Exclosure is removed, then recreationists can once again access the Boneyard gate during the breeding season. SNPL frequently nest in the Oso Flaco area, and any SNPL that nest within South Oso Flaco could be disturbed by recreationists that enter South Oso Flaco through the Boneyard gate. However, the Oso Flaco fence at the south end of East Boneyard would be moved, as necessary, to ensure that recreational access to South Oso Flaco from the former East Boneyard area would continue to be limited. As a result, this impact would be ***less than significant***.

The 6 Exclosure has had greater nesting success and is one of the higher producing exclosure areas. From 2005 to 2023, between 25 and 97 (i.e., 24 to 46 percent of the total SNPL nests at Oceano Dunes SVRA) SNPL nests have been established in the 6 Exclosure annually. Therefore, reduction of the 6 Exclosure could expose nesting, foraging, and/or roosting SNPL to recreation and other activities. Individuals not protected by the exclosure fence could be killed, injured, or disturbed if activities occur close by. Based on historical data in the HCP area from 2005 to 2023, the most nests established in the first 328 feet of the 6 Exclosure in a year has been nine nests. As a result, although unlikely,[28] it is possible that up to nine nests could be exposed to recreation and other activities during the first incremental decrease of the 6 Exclosure if SNPL do not move south into the remaining protected area. Ultimately, although unlikely, if the entire 6 Exclosure is removed, between 25 and 97 nests could be exposed to recreation. In addition, as the SNPL population increases, it is possible more SNPL breeding activity would occur in the open riding area.

From 2005 to 2023, the average density of concurrently active SNPL nests within the 6 Exclosure has ranged from 0.34 to 0.79 nest/acre. Adult territorial aggression towards SNPL chicks has been observed along the shoreline and occasionally observed within the seasonal exclosure when chicks from one brood move into the territory of another brood. Adult aggression toward chicks can injure or kill the chick or expose it to inclement weather, starvation, and/or predation. Currently, territorial aggression in the seasonal exclosure is only occasionally observed. However, reduction of the 6 Exclosure could exacerbate the territorial aggression within the seasonal exclosure by reducing the amount of habitat available for nesting

[28] Most SNPL are expected to move south into the protection of the exclosure to avoid disturbance from recreation activity. This has been observed at Coal Oil Point Reserve (Lafferty, Goodman and Sandoval 2006) where SNPL increased in abundance and contracted their distribution to within the protected area to avoid recreation disturbance.

so that nests must be established in closer proximity, and chicks would be more likely to enter the territory of another brood. In addition, as the SNPL population increases, it is possible more SNPL breeding activity may move into the open riding area.

The maximum number of SNPL nests during one breeding season within 1 acre in the 6 Exclosure from 2005 to 2018 has not exceeded seven nests, and some portion of those nests was active during the same time period. Therefore, for purposes of analysis, this suggests that the maximum optimal density for SNPL nests within an acre of the 6 Exclosure is seven nests. If the 6 Exclosure is reduced by 328 feet in a breeding season, SNPL that previously nested in that portion of the seasonal exclosure are expected to move into the remaining protected area (Lafferty, Goodman and Sandoval 2006), which would contract the SNPL nest distribution and increase the density of nests in the remaining exclosure area. Ideally, habitat would be available for SNPL to continue to nest at a favorable density; however, in a worst-case-scenario, nest density within a breeding season could exceed the maximum optimal density in some areas of the exclosure by at least one nest in the first 328-foot exclosure reduction. This trend would continue if the exclosure continued to be reduced by 328 feet (approximately 7.5 acres) each breeding season.

Adult territorial aggression towards SNPL chicks has been commonly observed along the shoreline when foraging chicks move into the territory of another brood. Adult aggression toward chicks on the shoreline can injure or kill the chick and/or separate them from the attending adult. In addition, adult aggression can result in chicks along the exclosure shoreline leaving the protection of the seasonal exclosure and entering the open riding area where they are at risk of being struck by a vehicle. Reduction of the 6 Exclosure (especially if the exclosure is reduced from north to south) would exacerbate this territorial aggression issue by reducing the amount of protected shoreline habitat available for foraging so that broods would either forage in closer proximity to another brood or leave the protection of the exclosure to avoid entering the territory of another brood. Historical nest data indicates between 25 and 97 nests have been established annually in the 6 Exclosure between 2005 and 2023; therefore, if the entire 6 Exclosure is removed, although unlikely, it could result in 75 to 291 chicks moving into the open riding area to forage where they are at risk of being struck by a vehicle.

To ensure that SNPL nesting levels in the HCP area continue to contribute to the overall success of the population, the HCP ensures that the 6 Exclosure would not be reduced unless specific criteria are met, including obtaining a breeding population size greater than 180 SNPL for 3 consecutive years and a fledge rate of 1.0 fledgling per pair over the same period (HCP section 5.2.3). In addition, any nests found outside a seasonal exclosure would be protected by a single-nest exclosure to provide a minimum 100-foot buffer, thus reducing the likelihood of direct impacts to nesting SNPL. The existing Southern Exclosure would be enlarged to encompass nests close to the existing fence boundary (e.g. approximately 150 feet away), and a large exclosure would be provided to surround two or more nests within 200 feet of each other in the open riding area (if topography allows and safe public traffic patterns are available). In addition, bumpouts would be installed as necessary to reduce disturbance to SNPL nesting near the areas open to motorized recreation. Fencing for such exclosures would continue to be maintained a minimum distance of 100 feet from the nest site.

Monitors would also track SNPL chicks that are hatched within the riding area to determine travel routes and patterns associated with foraging and exploration and natural resource staff would determine the appropriate method to protect broods. Chicks hatching from a single nest may be protected with symbolic or wire fencing to keep vehicles away, fencing would be

installed prior to the nest hatching, and fencing would remain in place until chicks moved to a protected area. In addition, the shoreline component adjacent to (west of) nests hatching in reduced areas of 6 Exclosure may be temporarily closed to the public if determined by CDPR to be necessary to allow broods to safely move to the adjacent shoreline for foraging and rearing habitat. The closure would be contiguous with the remaining Exclosure shoreline and fencing would be removed once all chicks on the opened 6 Exclosure shoreline had fledged or moved out of the area.

Although these measures would reduce impacts to eggs and chicks in the riding area, some eggs and chicks may still need to be captured and brought to a captive-rearing facility to prevent mortality and injury. The number of eggs or chicks that may need to be captured for captive rearing is difficult to predict at this time. Therefore, new SNPL AMM 22[29] establishes a maximum number of egg or chick capture (i.e., up to 12 eggs/4 nests and/or 12 chicks/4 broods per year) for covered activities not related to covered species management (e.g., motorized recreation). The measure also establishes a threshold (i.e., 8 eggs and 8 chicks) at which point CDPR would contact the USFWS and discuss appropriate AMMs (e.g., expanding the exclosure along the shoreline to provide additional protected foraging habitat, increasing monitoring along the shoreline, increasing signage in the breeding area) to reduce impacts and additional take that could occur from covered activities not related to covered species management. With these measures the reduction of East Boneyard Exclosure and 6 Exclosure are expected to have a ***less-than-significant*** impact on SNPL by ensuring that a viable population of SNPL continues to breed within the HCP area.

SNPL Critical Habitat: East Boneyard Exclosure is not located within critical habitat. Up to 62 acres (i.e., the 6 Exclosure) would continue to be closed to motorized vehicles during the SNPL and CLTE breeding season until certain criteria are met and the 6 Exclosure can be reduced by 328-foot or similar increments (HCP section 5.2.3). Ultimately, 62 acres of critical habitat could once again be open year-round to motorized recreation as a result of removing the 6 Exclosure.

Heavy recreational use in the 6 Exclosure reduction area may reduce the quality of designated SNPL critical habitat for nesting or wintering activities. Specifically, SNPL may continue to use areas that are heavily used by humans, but productivity may be limited. For example, motorized activities can reduce prey availability (e.g., reducing habitat quality by altering or reducing wrack, which provides essential habitat for talitrids); reduce habitat quality (e.g., removing/destroying objects such as kelp and driftwood associated with nesting); reduce microtopographic complexity, which provides cover from predators and inclement weather; and prevent the establishment of foredune vegetation, which can provide microhabitat features that can support nesting and roosting. However, heavy recreational use in critical habitat was occurring within the HCP area at the time critical habitat was designated. In addition, although exclosures do reduce disturbance, seasonal exclosures were not considered in the designation of critical habitat and were, therefore, not included as part of the physical and biological features essential to the conservation of the species. The USFWS has prepared a Draft EA, which concludes that the conservation program preserves the functionality of critical habitat. Therefore, reduction of the 6 Exclosure would not modify the physical and biological features described in critical habitat designation, and this impact would be ***less than significant***.

[29] A discussion of eggs and chick capture associated with the ongoing salvage and rescue activities conducted as part of CDPR's SNPL and CLTE Management Program (AMM 90) is included in EIR Appendix D.

CDPR UAS Use for Park Activities (CA-52). CDPR may use UAS (e.g., drones) in the HCP area to reduce the time and cost associated with data collection, especially in more remote areas. CDPR would avoid flying UAS in areas where breeding SNPL would be affected, if possible. However, CDPR may use UAS in or near SNPL nesting or brood rearing habitat during the breeding season for some activities (e.g., predator identification, habitat enhancement, SNPL monitoring, or public safety/law enforcement purposes). In 2018, prior to the SNPL breeding season, CDPR staff assessed the ability of a UAS to capture the amount of wrack present on the shoreline within SNPL breeding habitat. The UAS was tested over a period of a week and found to be highly effective at assessing nesting habitat enhancements distributed by staff. During the UAS flight, CDPR observed a small flock of SNPL and other shorebirds nearby. The flock of SNPL and other shorebirds did not flush or crouch in response to the UAS, and monitors observed SNPL to be unharmed. Reactions to UAS can vary greatly among bird species and even among species within the same family, such as gulls and terns (Barr, et al. 2020). At least one species of tern has been shown to readily habituate to UAS (Chabot, Cralk and Bird 2015), suggesting the potential exists to use UAS among colonial nesting species such as CLTE without significant disturbance. In addition, SNPL AMMs 126–139 and 144–146 would be implemented during breeding season to ensure disturbance from UAS is minimized, including, but not limited to, initiating flights at least 328 feet from the closest known nest location, following existing monitoring guidelines that have been established by USFWS, having a trained biologist scan the area for roosting and nesting SNPL before every flight, having a trained biologist monitor the flight if SNPL are observed, ensuring UAS flight patterns are not erratic so they are not interpreted as an avian predator, and flying UAS at least 100 feet above ground at all times and moving UAS to higher altitude or aborting the mission if UAS are observed disturbing nests or broods. Certain public safety UAS uses, such as search and rescue, may prevent implementing all such measures, but such incidents are not common, and all UAS operators would receive training to minimize effects on SNPL as much as possible, with additional training for law enforcement UAS operators to minimize disturbance to SNPL even during emergencies. As a result, UAS are expected to have ***less than significant*** impacts on nesting and/or brooding SNPL during the breeding season. Overall, UAS would likely have ***beneficial effects*** by collecting valuable information on SNPL habitat, predators, and breeding that will inform future management decisions within the HCP area.

UAS may be used during the non-breeding season throughout the HCP area and during the breeding season outside occupied SNPL breeding habitat and could disturb roosting and/or foraging SNPL. Vas et al. (2015) assessed reactions by a variety of waterbirds to approaches by UAS and found that the birds remained unaffected in most cases, suggesting the potential to use UAS without significant disturbance. In addition, SNPL AMMs 126–132 and 140–146 would be implemented during the nonbreeding season to ensure disturbance from UAS is minimized, including, but not limited to, ensuring UAS flight patterns are not erratic so they are not interpreted as an avian predator, scanning the area for roosting or foraging SNPL prior to every flight, flying UAS at least 100 feet above ground, and ensuring all non-emergency/public safety flights are approved by the qualified biologist/Natural Resource staff. As a result, UAS are expected to have ***less-than-significant*** impact on foraging and/or roosting SNPL during the non-breeding season and/or outside occupied SNPL breeding habitat during the breeding season. Overall, UAS would likely have ***beneficial effects*** by collecting valuable information on SNPL habitat, predators, and breeding that will inform future management decisions within the HCP area.

Take of SNPL from Proposed New Covered Activities

SNPL take numbers quantified in the HCP include incidental take from existing, proposed new, and potential future covered activities and include mortality, injury, capture, abandonment, and eggs or chicks in the open riding area at risk of take such as being struck by a vehicle. The estimated take summarized in HCP Table 4-3 and in Table 6-6 below includes:

- Take of individual SNPL adults, juveniles, chicks, and eggs caused by park operations, recreation, and other activities not related to covered species management.
- Take of SNPL caused by striking fences (e.g., exclosure fencing, single nest exclosures) installed to protect nests and individuals from public activity. Impacts from all other management activities related to monitoring and protecting SNPL (recovery activities) are discussed in HCP Appendix C and will be authorized under the 10(a)(1)(A), Recovery Permit (TE-815214-10).

Most of the highest documented take numbers reflect worst-case conditions. Those conditions are based both on past observations of mortality and injury, as well as observations of events that could potentially cause mortality or injury, such as chicks entering the open riding area or nests being abandoned after an adult has been observed being disturbed by recreation. These observations have been documented under existing operations and, although the same levels of take do not occur every year, they thus reflect baseline conditions over the permit term for purposes of this analysis. The level of take authorization proposed in the HCP as shown in Table 6-6 (5-Year Running Take Limit) accounts for the worst-case estimates with the recognition that historical data may undercount mortality; not every egg or individual SNPL may have been detected (Table 6-6). Although the worst-case scenario of take has been observed or is thought to have occurred in the past, this level of take is not expected to occur within the HCP area in most years. As documented in the monitoring data collected by CDPR since 2002, take for most years is lower than the worst-case scenario for take Table 6-6. Take levels that can vary from year-to-year reflect the baseline conditions within the HCP area.

Of the proposed new activities, tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic predator control (CA-17), mechanical trash removal (CA-21) and CDPR's use of UAS (CA-52) are not expected to cause take above baseline conditions.

Additionally, as discussed above, no increase in take of SNPL adults and juveniles over baseline is expected to occur from reducing the 6 Exclosure (CA-50). Reducing the 6 Exclosure could potentially increase take of SNPL chicks and eggs in that area; however, any increase in take would remain within take projections estimated for baseline conditions of park operations. Based on historical data in the HCP area from 2005 to 2023, the most nests established in the first 328 feet of the 6 Exclosure in a year has been nine nests. As a result, although unlikely,[30] it is possible that the first incremental decrease of the 6 Exclosure could result in take of up to nine nests (up to 27 eggs or chicks if each nest had three eggs). However, it is estimated that fewer than nine nests would be exposed to risk of take since nine nests was the maximum found in the first 328 feet of the 6 Exclosure in over twenty years of monitoring, and single nest exclosures and implementation of the other SNPL AMMs would most likely prevent take of the nests even

[30] Most SNPL are expected to move south into the protection of the exclosure to avoid disturbance from recreation activity. This has been observed at Coal Oil Point Reserve (Lafferty, Goodman and Sandoval 2006) where SNPL increased in abundance and contracted their distribution to within the protected area to avoid recreation disturbance.

if they were outside of the 6 Exclosure. In addition, the 6 Exclosure would not be reduced unless specific criteria are met, including obtaining a breeding population size greater than 180 SNPL for 3 consecutive years and a fledge rate of 1.0 fledgling per pair over the same period.

The HCP includes as a new covered activity SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b; AMM 22), which allows capture and captive rearing of eggs and chicks that would otherwise be at risk of take from covered activities not related to covered species management, such as motorized recreation and new proposed activities (Table 2-6.).[31] New SNPL AMM 22 specifies that egg and chick capture for this purpose is limited to up to 12 eggs and 12 chicks per year, and only if this action is determined to be appropriate by a CDPR Senior Environmental Scientist. CA-12b is formalized as new SNPL AMM 22 because it serves to reduce direct mortality or injury that might otherwise occur from covered activities (e.g., CA-1 Motorized Recreation, CA-50 Reduction of 6 Exclosure). Although AMM 22 would be implemented to avoid potential mortality, injury, or harm, the capture itself is a new form of incidental take used only when it is the best option to prevent mortality or injury to those eggs or chicks deemed vulnerable.

It is difficult to forecast precisely which ongoing and proposed new covered activities may trigger implementation of SNPL AMM 22 from year to year. Attributing take to a specific activity can be difficult since, ultimately, take associated with some of these activities is speculative. However, based on the allowable limits, CA-12b/SNPL AMM 22 could include take of up to 12 eggs and 12 chicks per year, although the number of eggs and chicks captured for captive rearing is expected to be much lower in most years. This level of take is accounted for in the proposed 5-year running take limit for SNPL eggs and chicks in Table 6-6.

[31] Currently, CDPR attempts to protect nests and/or move chicks back into the safety of the seasonal exclosure; however, chicks and eggs are still at risk of being injured or killed by covered activities. As a result, injury or mortality could occur if eggs or chicks are not observed by monitors and/or if chicks move back into areas where covered activities occur.

Table 6-6. Summary of Historic SNPL Mortality/Injury/Risk (2002–2023) and Proposed Take Permit Limits

Life Stage	Highest Mortality/Injury/Risk[1]	Additional Mortality/Injury/Risk[1, 2]	Years Without Documented Mortality/Injury/Risk	Population Range (2002-2023)	5-Year Running Take Limit[3, 4, 5, 6,]
Adults/ Juveniles	2016: 9 adults/juveniles killed and 2 adults/juveniles injured.	5 or more adults/juveniles killed or injured: 2017, 2018, 2019, 2022, 2023 3-4 adults/juveniles killed or injured: 2010, 2011, 2013-2015, 2021 1-2 adults/juveniles killed or injured: 2002-2004, 2006-2009, 2012, 2020	2005	79-232 breeding adults per year	40 juveniles and/or adults
Chicks	Mortality: 2018 & 2020 (2 each) Injury/Rescue: 2014 (7) At Risk: 2016 (24)	Mortality: 2016 (1) Injury/Rescue: 2003 (2), 2004 (1), 2011 (1), 2017 (2) At Risk: 2002 (1), 2003 (2), 2004 (1), 2011 (8), 2012 (5), 2013 (3), 2014 (5), 2015 (10), 2017 (15), 2018 (12), 2019 (14), 2021 (2), 2022 (7), 2023 (6)	2005, 2006, 2007, 2008, 2009, 2010	62-514 chicks per year	80 chicks
Eggs	Mortality: 2009, 2014, and 2017 (each 11) Rescue: 2014 (12) At Risk: 2023 (22)	Mortality: 2004 (1), 2006 (3), 2007 (5), 2008 (7), 2010 (9), 2012 (8), 2013 (4), 2015 (4), 2016 (5), 2019 (3), 2021 (6), 2022 (7), 2023 (8) Rescue: 2003 (5), 2006 (3), 2011 (3), 2012 (6), 2013 (6), 2016 (3), 2017 (6), 2018 (6), 2019 (3), 2021 (10), 2022 (5), 2023 (1) At Risk: 2003, 2004, 2009, 2010, 2011, & 2012 (each 3), 2014 & 2017 (each 1), 2021 (9)	2002, 2005, 2020	35-273 nests per year	80 eggs

Table 6-6. Summary of Historic SNPL Mortality/Injury/Risk (2002–2023) and Proposed Take Permit Limits

Life Stage	Highest Mortality/Injury/Risk[1]	Additional Mortality/Injury/Risk[1, 2]	Years Without Documented Mortality/Injury/Risk	Population Range (2002-2023)	5-Year Running Take Limit[3, 4, 5, 6,]

Notes:

[1]Table includes mortality and injury attributed to recreation, park operations, and other activities not related to recovery actions, as well as chicks entering the riding area and thus at risk of take. Adult/juvenile data also includes mortality and injury attributed to SNPL striking exclosure. Chick and egg rescues only include rescue necessitated by impacts attributed to recreation, park operations, and other activities not attributed to recovery actions.

[2]2020-2021 – HCP area partially to fully closed as follows: Beach access restricted beginning March 23 and fully closed to vehicular recreation March 28. HCP area reopened to vehicle activities in phases: Phase 1, October 30, allowed ≤1,000 street-legal day use vehicles per day; Phase 2, February 19, 2021, added ≤1,000 day use OHVs per day and 100 beach camping units; and Phase 3, June 15, 2021, increased to 150 beach camping units. Oceano and Pismo Beach campgrounds closed March 17 – September 20, 2020. Parking lots adjacent to the beach had limited one-hour parking, and Oso Flaco Lake lot closed March 28 – May 21.

[3]Take estimates include take observed after harassment that leads to nest or chick abandonment~~Take estimates do not include harassment~~.

[4]Numbers are based on past observations of worst-case mortality, injury, capture, etc. that have rarely been observed during the timeframe from 2002 to 2023 and do not happen every year. The numbers recognize that not every egg or SNPL may be detected. The 5-year running sum accounts for occasional years in which a higher amount of take may occur to ensure such unusual events do not trigger an amendment to the HCP.

[5]The HCP does not include annual take estimates, but the annual numbers presented in the text represent a worst-case scenario. If annual take numbers approach this worst-case scenario for any life stage during any one calendar year, CDPR will initiate additional consultation with USFWS to identify additional management actions that can be implemented. That annual trigger for consultation stands at 16 adults/juveniles, 28 chicks, and 37 eggs from all covered activities other than recovery activities.

[6]Take estimate includes salvage and rescue of SNPL eggs and chicks if they are observed to be threatened by park operations, recreation activity, and other non-recovery activities (AMM 22). In this case, 12 eggs and 12 chicks each year may be captured for captive rearing if they are determined to be threatened by covered activities not related to recovery activities, including new proposed activities. These are included in the total take number included in this table since the eggs and chicks would likely not survive if they were not captured for captive rearing and since eggs and chicks taken for captive rearing may, ultimately, not be reintroduced back into the population. Take estimate is based on chicks that have been observed in the open riding area and subject to potential harm by recreation and other covered activities, including risk of vehicle strike. With the implementation of AMMs, such as escorting chicks back to the protection of the Exclosures, the risk of lethal take and/or harm is low.

Although highly unlikely, the potential for an increased loss of up to 9 nests from reduction of 6 Exclosure (CA-50) and 12 eggs and chicks due to captive rearing (CA-12b) annually is significant to a federally-listed threatened species; however, this loss must be considered in the context of the overall conservation program implemented by CDPR in the HCP area. In 2001, CDPR began daily monitoring of SNPL nests. Since then the SNPL management program has evolved to include surveys, habitat enhancements, predator management, seasonal nesting area protections, law enforcement, and trash control. While past implementation of SNPL AMMs has not eliminated take of SNPL from visitor use or park operations, SNPL breeding success within the protected nesting areas has substantially increased the SNPL breeding population in the HCP area from 32 breeding adults in 2002 to an average of 207 breeding adults for the 5-year period of 2019-2023 (HCP Table 3-8). SNPL continue to breed and forage and increase in numbers where active conservation management provides habitat enhancement and protection (HCP section 3.3.1). This side-by-side existence of visitor recreation and successful SNPL

conservation is expected to continue in the future. The potential take from new covered activities is not expected to diminish the enlarged SNPL population sustained by CDPR's conservation program or hinder species recovery efforts. As a result, the SNPL take impact associated with the proposed new covered activities is *less than significant*

6.3.2.2 California Least Tern

SNPL and CLTE Management (12b) – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and other Non-Covered Species Management Activities. CLTE would not be captured for captive rearing since captive-rearing facilities for CLTE are not currently available and releasing CLTE to integrate into wild populations has proven challenging since CLTE typically migrate together as a family or in groups. As a result, no direct impacts to CLTE from SNPL egg and chick capture would occur.

SNPL chick and egg capture to prevent mortality from non-covered species management activities (e.g., motorized recreation) would occur outside the seasonal exclosure where SNPL eggs and chicks are at risk of being struck by vehicles. Since the majority of CLTE nest within the exclosure, impacts from this activity are expected to be minimal. In the rare case that a CLTE nest or chick occurs outside the seasonal exclosure near a SNPL nest or brood being rescued, CLTE could be flushed from the nest or chicks could be separated from adults. However, as stated previously, this situation is unlikely to occur. In addition, SNPL chick and egg capture activities would be conducted by a USFWS-approved or 10(a)(1)(A) permitted biologist that would implement appropriate CLTE AMMs to ensure any disturbance to CLTE is minimized. As a result, this impact would be ***less than significant***.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. The potential impacts of stranded tidewater goby salvage on CLTE would be similar to impacts from ongoing tidewater goby and salmonid surveys and would be minimal. Tidewater goby salvage would not occur in areas where CLTE typically nest and thus would be unlikely to impact nesting CLTE. Tidewater goby salvage could occur during the CLTE breeding season at Oso Flaco Creek, including the lagoon-like reach (if present); Oso Flaco Lake; Arroyo Grande Creek and lagoon; or Pismo Creek and lagoon where CLTE are known to forage. If CLTE are foraging in these areas during tidewater goby salvage, then salvage could result in disturbance to foraging and/or roosting CLTE. Specifically, salvage could disturb CLTE adults and fledglings and deter them from foraging in the area. Fledglings learning to fish could become energetically stressed if they are unable to forage normally. Given that the tidewater goby salvage would be short in duration and infrequent, the likelihood of salvage affecting CLTE is low. In addition, CDPR would continue to implement the SNPL and CLTE management program within the HCP area. Tidewater goby salvage staff include personnel experienced with conducting fisheries surveys within CLTE habitat and may include permitted CLTE monitors, if deemed necessary. Tidewater goby salvage would not be conducted if it posed a disturbance risk to CLTE foraging or roosting. Therefore, the impacts to CLTE from tidewater goby salvage would be ***less than significant***.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. Potential impacts to CLTE from SWPT and WSF monitoring would be similar to existing impacts from ongoing CRLF surveys and are expected to be minimal. One CLTE nest has been observed in the HCP area near Arroyo Grande Creek where CRLF surveys occur; however, this last occurred in 2005. As a result, SWPT and WSF monitoring would not occur in locations where CLTE are typically known to nest and is expected to have ***no impact*** on nesting CLTE.

SWPT and WSF monitoring conducted within Oso Flaco Lake or the lagoons in the HCP area could temporarily disturb foraging and/or roosting CLTE. Such monitoring could disturb CLTE adults and fledglings and deter them from foraging and/or roosting in the area. Fledglings learning to fish could become energetically stressed if they are unable to forage normally. CDPR would continue to implement the SNPL and CLTE management program within the HCP area to ensure these impacts are reduced. Specifically, monitoring would not be conducted if CLTE is observed foraging and roosting in the area and could be impacted by survey activities. In addition, the surveys would typically be short in duration and infrequent. As a result, any disturbance to foraging and/or roosting CLTE from SWPT and WSF monitoring would be ***less than significant***.

Habitat Restoration Program (CA-16) – Dune Slack Restoration. Restoration of Jack Lake and/or Surprise Lake would be in CLTE tertiary habitat and therefore would have ***no impact*** on CLTE.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Species Predator Control. The potential impacts of invasive aquatic species predator control on CLTE are similar to the impacts of ongoing invasive plant and animal control when it occurs in or near aquatic habitats, and such impacts are expected to be minimal. Invasive aquatic species predator control would not occur in or near the Southern Exclosure or in areas where CLTE are known to nest. Therefore, ***no impact*** on nesting CLTE would occur.

Invasive aquatic species predator control would occur in areas that can disturb roosting or foraging CLTE (e.g., Pismo Creek Lagoon, Arroyo Grande Creek and Estuary). Invasive aquatic species predator control could disturb CLTE adults and fledglings and deter them from foraging and/or roosting in the area. Fledglings learning to fish could become energetically stressed if they are unable to forage normally. To reduce impacts from invasive aquatic species predator control, CDPR would continue to implement the SNPL and CLTE management program in the HCP area. Therefore, qualified biologists/Natural Resource staff or CDPR approved contractors conducting the work would continue to be aware of CLTE activity and will adjust timing and location of the control actions to avoid any disturbance to foraging CLTE. As a result, impacts on foraging and/or roosting CLTE would be ***less than significant***.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal. Mechanical trash removal would not occur within areas encompassed by the Southern Exclosure (i.e., from Post 6 south). Mechanical trash removal would be subject to CLTE AMMs 89 –96, which include surveying the area for CLTE presence prior to mechanical trash removal and use of a biological monitor. Implementation of these measures would prevent mortality or injury of CLTE from equipment operation, and this impact would be ***less than significant***.

Mechanical trash removal activities would not be conducted within 330 feet (or other distance based on best available site-specific information and in consultation with Wildlife Agencies) of any known CLTE nesting area (e.g., the Southern Exclosure, bumpouts, and individual nest exclosures) and is therefore unlikely to disturb nesting CLTE. CLTE AMMs 89–96 would also be implemented to reduce these impacts to ***less than significant***.

Mechanical trash removal would not be conducted within vegetated areas or within any fenced closed areas where known CLTE nesting occurs (such as near the Southern Exclosure) during the breeding or non-breeding season; therefore, CLTE habitat would not be affected. In addition, mechanical trash removal would not occur near lakes or other water bodies; therefore, CLTE foraging habitat would not be impacted. Mechanical trash removal could affect favorable CLTE nesting habitat (i.e., primary and secondary habitat) outside the Southern Exclosure by altering

dune composition and topography. Specifically, mechanical trash removal could reduce organic surface materials (e.g., driftwood) and microtopography. However, CLTE rarely nest outside the protection of the Southern Exclosure. In addition, most mechanical trash removal would be conducted to remove litter in areas where recreation activities have been concentrated, and the substrate is already highly disturbed. These areas are unlikely to support the appropriate CLTE nesting habitat due to the high level of recreation; therefore, CLTE are not expected to nest in the areas where mechanical trash removal would typically occur. As a result, mechanical trash removal would have a ***less-than-significant*** impact on CLTE nesting habitat.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). Reduction of the Boneyard Exclosure and 6 Exclosure is not expected to result in additional impacts to adult and/or juvenile CLTE beyond those described above for motorized recreation (CA-1) and pedestrian activities (CA-3) since CLTE almost exclusively nest within the protection of exclosure fences. In addition, CLTE AMMs would be implemented, as appropriate, including installing single-nest exclosures or bumpouts around any CLTE nest within the open riding area, and any CLTE adults and/or juveniles found outside an exclosure would typically be expected to fly out of harm's way.

Elimination of East Boneyard (47 acres) and incremental elimination of 6 Exclosure (62 acres) could result in the permanent loss of up to 109 acres of protected breeding habitat. This reduction represents approximately one-third of the 368 acres of CLTE breeding habitat currently protected by the Southern Exclosure (300 acres) and the North Oso Flaco Exclosure (68 acres).

Removal of the East Boneyard Exclosure from the Southern Exclosure is expected to be accomplished with no direct impact on nesting CLTE at East Boneyard because CLTE have not nested there since 2007. CLTE are also not known to form their night roost in the East Boneyard Exclosure; therefore, the East Boneyard Exclosure is expected to be removed with ***no direct impact*** on roosting CLTE.

The East Boneyard Exclosure can provide a buffer between recreational disturbance in the open riding area and CLTE nesting habitat in West Boneyard. Removal of the East Boneyard Exclosure would thus result in motorized recreation activities adjacent to the West Boneyard Exclosure where CLTE could nest, but CLTE have not nested within the West Boneyard Exclosure since 2009. If any nesting CLTE within the West Boneyard Exclosure are observed to be disturbed by increased recreation and/or new travel patterns within the former adjacent East Boneyard Exclosure, a bumpout would be installed as described in the CLTE AMMs to ensure that disturbance in this area is minimized. As a result, this impact is ***less than significant***.

The 6 Exclosure has had greater nesting success and is one of the higher producing exclosure areas. From 2005 to 2023, between 4 and 39 CLTE nests (i.e., 7 to 87 percent of the total CLTE nests) were established in the 6 Exclosure annually. Therefore, removal of some of the 6 Exclosure could expose nesting and/or roosting CLTE to recreation and other activities. Individuals not protected by the exclosure fence could be killed, injured, or disturbed if activities occur close by. From 2005 to 2023, 14 CLTE nests have occurred within the northern 328 feet[32] of the 6 Exclosure: 8 of those nests in 2022, 5 in 2021, and 1 in 2010. As a result, the 6

[32] CDPR may reduce the exclosure via other configurations, such as east-to-west. Both scenarios are expected to result in similar impacts since CLTE almost exclusively nest within the Southern Exclosure and do not use the shoreline to forage. For consistency with the SNPL analysis, this section focuses on a north-to-south, 328-foot or approximately 7.5-acre reduction.

Exclosure reduction could potentially expose eight nests during the first incremental decrease of the exclosure, although this is unlikely since CLTE are expected to avoid areas that are regularly disturbed and continue to move south in the protected seasonal exclosure area. If the entire 6 Exclosure is removed, between 4 and 39 nests could be exposed to recreation, assuming they do not relocate. In addition, if the CLTE population increases, more CLTE breeding activity could potentially occur in the open riding area.

During the breeding season, adult CLTE not engaged in incubation or chick care often assemble in a communal night roost and are joined by fledglings later in the breeding season. From 2007 to 2023, the high count of CLTE in the night roost has ranged from 35 to 95. The CLTE night roost had been located in the northern 6 Exclosure from 2004 to 2019 but was also located in other areas of 6 and 7 Exclosures from 2015 to 2018. Since 2020 the location has been increasingly variable, with roosts detected in 6 Exclosure, 7 Exclosure, and east of these exclosures within fenced bumpout areas. Therefore, reduction of the 6 Exclosure would reduce the habitat available for the CLTE night roost. Although unlikely,[33] if CLTE do form the night roost in the former 6 Exclosure area that is open to vehicles and recreation, from 35 to 95 individuals could be susceptible to vehicle strike and/or disturbance from recreation. Disturbance could deter CLTE from resting and could result in increased vigilance and stress.

From 2005 to 2023, the average density of CLTE nests within the 6 Exclosure has ranged from 0.07 to 0.65 nest/acre. CLTE chicks and adults have been observed leaving the exclosure and entering the open riding area in some years. Reduction of the 6 Exclosure could exacerbate this this issue by reducing the amount of habitat available for nesting and rearing so chicks and adults are pushed into the open riding area more frequently. If the 6 Exclosure is reduced incrementally by 328 feet in a breeding season, CLTE that would otherwise establish nests outside the exclosure could move south into the remaining protected area, which would increase the density of nests in the 6 Exclosure. Ideally, the nest would be established in habitat available for CLTE to continue to nest without adverse interactions; however, it is estimated that in a worst-case-scenario nest density could increase to a point where CLTE nests and chicks would be pushed into the open riding area.

To ensure that CLTE continue to nest and roost within the HCP area at levels that contribute to the overall population of CLTE, the 6 Exclosure would not be reduced unless specific criteria are met and maintained (Chapter 5 in the HCP), including obtaining a CLTE breeding population with a 5-year average of 35 nesting pairs and a fledge rate of 1.0 fledglings per pair over the same period. In addition, the exclosure would be reduced in 328-foot increments, or alternative incremental reductions of similar acreage, allowing for close monitoring of and response to any nests initiated outside the exclosure. Any such nests would be protected by a large single-nest exclosure, thus reducing the likelihood of impacting nesting CLTE. The existing Southern Exclosure would be enlarged, if necessary, to encompass nests adjacent to the existing fence boundary (e.g., within or close to the minimum 330-foot buffer distance or other distance based on best available site-specific information and in consultation with Wildlife Agencies). A large exclosure would be provided to surround two or more nests within 500 feet of each other in the open riding area (if topography allows and is safe public traffic patterns are available). In addition, bumpouts would be installed as necessary to reduce disturbance to CLTE nesting near

[33] CLTE are expected to move south and form a night roost in the protected area that is free of disturbance. In addition, the night roost is regularly monitored, so impacts a change in night roost location is expected to be observed quickly.

the areas open to motorized recreation. Fencing for all such exclosures would continue to be maintained a minimum distance of 330 feet from the nest site, or other distance based on best available site-specific information, and in consultation with Wildlife Agencies (see AMMs 10 – 16).

If a nest were to be found outside the southern exclosure, it would receive a single nest exclosure. Prior to hatch, silt fencing or small mesh chick fencing would be installed within the exclosure or attached to lower portion of the exclosure fence to prevent CLTE chicks from traveling into the open riding area (AMM 16). Furthermore, monitors would track changes in the night roost and ensure the night roosts are protected from public activity within an exclosure. If a night roost is found in the open riding area, CDPR would close off the night roost area with fencing as soon as possible and implement a 330-foot no-disturbance buffer, or other distance based on best available site-specific information and in consultation with Wildlife Agencies, around the night roost (AMM 16). With these measures in place, the reduction of the Boneyard Exclosure and 6 Exclosure are expected to have a ***less-than-significant*** impact on CLTE by minimizing mortality and disturbance-related impacts and by continuing to support a viable population of CLTE to breed within the HCP area.

CDPR UAS Use for Park Activities (CA-52). Impacts from CDPR's use of UAS (e.g., drones) in the HCP area on CLTE are similar to those discussed above for SNPL. CLTE AMMs 112–129 would be implemented to ensure disturbance from UAS is minimized, including, but not limited to, initiating flights at least 330 feet from the closest known nest location, or other distance based on best available site-specific information and in consultation with Wildlife Agencies, following existing monitoring guidelines that have been established by USFWS, having a trained biologist scan the area for roosting and nesting CLTE before every flight, having a trained biologist monitor the flight if CLTE are observed, ensuring UAS flight patterns are not erratic so they are not interpreted as an avian predator, and flying UAS at least 100 feet above ground at all times and moving UAS to higher altitude or aborting the mission if UAS are observed disturbing nests or chicks. Certain public safety UAS uses, such as search and rescue, may prevent implementing all such measures, but such incidents are not common, and all UAS operators would receive training to minimize effects on CLTE as much as possible even during emergencies. As a result, UAS are expected to have ***less than significant*** impacts on nesting, foraging, and/or roosting CLTE during the breeding season, although some disturbance may occur depending on the protocol necessary for the specific data gathering. UAS would have ***no impact*** on CLTE outside of the breeding season. Overall, UAS would likely have ***beneficial effects*** by collecting valuable information on CLTE habitat, predators, and breeding that will inform future management decisions within the HCP area.

Take of CLTE from Proposed New Covered Activities

The CLTE is a California fully protected species. As such, CDFW may only permit take of CLTE (as defined by CESA[34]) necessary for scientific research or pursuant to an approved NCCP.[35] CDPR is seeking take authorization from CDFW separately.

[34] Take, as defined under CESA, is any action or attempt to "hunt, pursue, catch, capture, or kill."

[35] Section 2835 of the Fish and Game Code allows CDFW to authorize by permit the taking of any covered species, including those designated as fully protected species, whose conservation and management is provided for in a

CLTE take numbers quantified in the HCP include incidental take from existing, proposed new, and potential future covered activities and include mortality, injury, capture, abandonment, and eggs or chicks in the open riding area at risk or being struck by a vehicle. The estimated take summarized in HCP Table 4-5 and in Table 6-7 below includes:

- Take of individual CLTE adults, juveniles, chicks, and eggs caused by park operations, recreation, and other activities not related to covered species management.
- Take of CLTE caused by striking fences (e.g., exclosure fencing, single nest exclosures) installed to protect nests and individuals from public activity. Impacts from all other management activities related to monitoring and protecting CLTE (recovery activities) are discussed in HCP Appendix C and will be authorized under the 10(a)(1)(A), Recovery Permit (TE-815214-10).

The take numbers presented in the HCP reflect worst-case conditions based on past observations of mortality and injury, as well as observations of events that could cause mortality or injury that have been observed only rarely during the timeframe from 2002 to 2023 and do not happen most years. These observations have been documented under existing operations and, although the same levels of take do not occur every year, they thus reflect baseline conditions over the permit term for purposes of this analysis. Oceano Dunes District will continue to manage for breeding CLTE targets. The level of take authorization proposed in the HCP as shown in Table 6-7 (5-Year Running Take Limit) recognizes that not every egg or individual CLTE may have been detected. However, these data have resulted from long-term, intensive monitoring within the HCP area. It is estimated that a similar level of future take will occur if CDPR maintains a similar set of conditions for the CLTE population within the HCP area in the future (Table 6-7). Although the worst-case scenario of take has been observed or is thought to have occurred in the past, this level of take is not expected to occur within the HCP area in most years. As documented in the monitoring data collected by CDPR since 2002, take for most years is lower than the worst-case scenario for take (Table 6-7). Take levels that can vary from year-to-year reflect the baseline conditions within the HCP area.

The new proposed covered activities would not contribute to an increase in CLTE take over historic (baseline) numbers identified in Table 6-7. CA-12b SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities only pertains to SNPL and would not impact CLTE. CA-13 stranded tidewater goby salvage would have similar minimal impacts on CLTE as ongoing tidewater goby and salmonid surveys. CA-14 SWPT and WSF monitoring would have similar minimal impacts to CLTE as ongoing CRLF surveys. CA-16 dune slack restoration is in CLTE tertiary habitat and would have no impact on CLTE. CA-17 invasive aquatic predator control would have similar minimal impacts to CLTE as ongoing invasive plant and animal control in aquatic areas. CA-21 mechanical trash removal would not occur within 330 feet of known CLTE nesting areas, or other distance based on best available site-specific information and in consultation with Wildlife Agencies and is unlikely to impact CLTE. CA-50 Reduction of the Boneyard Exclosure and 6 Exclosure could potentially result in increased numbers of CLTE entering the open riding area; however, with existing AMMs, the potential number of CLTE injuries or mortalities is not expected to exceed previously observed take. Therefore, no increase

NCCP approved by CDFW. Take authorization is also allowed for certain specified infrastructure and other projects not applicable to the covered activities (Fish & Game Code § 2081.15).

in take of CLTE adults and juveniles is expected to occur from CA-50 above baseline conditions. CA-52 CDPR UAS Use for Park Activities would be restricted in proximity and flight pattern to avoid impact to CLTE. As a result, the proposed new covered activities would have ***no impact*** due to CLTE take.

Table 6-7. Summary of Historic CLTE Mortality/Injury/Risk (2002–2023) and Proposed Take Permit Limit

Life Stage	Highest Mortality/Injury/Risk[1]	Additional Mortality/Injury/Risk[2]	Years Without Documented Mortality/Injury/Risk	Population Range (2002-2023)	5-Year Running Take Limit[3, 4, 5]
Adults/ Juveniles	2017: 5 adults/juveniles killed and 2 adults/juveniles injured.	2 adults/ juveniles killed or injured: 2003, 2013, 2015, 2017 1 adult/ juvenile killed or injured: 2009, 2010, 2011, 2016, 2019, 2021	2002, 2004-2008, 2012, 2018, 2020, 2022, 2023	20-66 breeding adults per year	15 juveniles and/or adults
Chicks	Mortality & Injury: chick's wing was caught on a fence wire in 2010 At Risk: 6 chicks in open riding area in 2010	Mortality & Injury: None At Risk: chicks are known to have entered the open riding area in other years as well	2002-2009, 2011-2023	27-101 chicks per year	15 chicks
Eggs	Mortality: three nests abandoned in 2011 (4 eggs)	Mortality: One nest abandoned in 2009 (2 eggs) and 2014 (2 eggs)	2002-2008, 2010, 2012, 2013, 2015-2023	44-135 eggs per year	22 eggs

Notes:

[1]Table includes mortality and injury attributed to recreation, park operations, and other activities not related to recovery actions, as well as chicks entering the riding area and thus at risk of take. Adult/juvenile data also includes mortality and injury attributed to CLTE striking exclosure.

[2]2020-2021 – HCP area partially to fully closed as follows: Beach access restricted beginning March 23 and fully closed to vehicular recreation March 28. HCP area reopened to vehicle activities in phases: Phase 1, October 30, allowed ≤1,000 street-legal day use vehicles per day; Phase 2, February 19, 2021, added ≤1,000 day use OHVs per day and 100 beach camping units; and Phase 3, June 15, 2021, increased to 150 beach camping units. Oceano and Pismo Beach campgrounds closed March 17 – September 20, 2020. Parking lots adjacent to the beach had limited one-hour parking, and Oso Flaco Lake lot closed March 28 – May 21.

[3]Take estimates include take observed after harassment that leads to nest or chick abandonment~~Take estimates do not include harassment~~.

[4]Numbers are based on past observations of worst-case mortality, injury, capture, etc. that have rarely been observed during the timeframe from 2002 to 2023 and do not happen every year. The numbers recognize that not every egg or CLTE may be detected. The 5-year running average accounts for years in which a higher amount of take may occur to ensure such unusual events do not trigger an amendment to the HCP.

[5]This HCP does not include annual take estimates, but the annual numbers presented in the text represent a worst-case scenario. If annual take numbers approach this worst-case scenario for any life stage during any one calendar year, CDPR will initiate additional consultation with USFWS to identify additional management actions that can be implemented. That annual trigger for consultation stands at 12 adults/juveniles, 8 chicks, and 8 eggs from all covered activities other than recovery activities.

6.3.2.3 Southwestern Pond Turtle

SNPL and CLTE Management (CA-12b) – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities. SNPL chick and egg capture would have ***no impact*** on SWPT or its habitat.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. Stranded tidewater goby salvage would have similar minimal impacts to SWPT as ongoing tidewater goby and salmonid surveys. Tidewater goby salvage would only occur when water levels are low and other aquatic species such as SWPT are less likely to be present. Occasionally, SWPT individuals could be present within tidewater goby salvage areas. If encountered unintentionally during tidewater goby salvage activities, CDPR biologists could affect all SWPT life stages (i.e., hatchlings, juveniles, and adults). However, fisheries biologists permitted to perform tidewater goby salvage in SWPT habitat would conduct a visual survey for SWPT individuals prior to salvage in areas where SWPT may be present. If individuals are discovered, tidewater goby salvage would be conducted in a way that avoids all individuals. As a result, impacts to SWPT during tidewater goby salvage would be ***less than significant***.

Salvaging stranded tidewater goby can indirectly affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution would be taken to minimize disturbance to sediment and any sediment that is stirred up during seining, and/or dipnetting activities would be minimal, localized, and temporary. As a result, this impact would not affect SWPT or their habitat in the long term.

Although information is currently limited on the spread of diseases affecting non-captive bred SWPT, such as respiratory disease and shell disease, fisheries biologists do follow decontamination protocols to prevent the spread of amphibian chytridiomycosis (USFWS 2005b). To the extent diseases affecting SWPT could otherwise be spread by salvage activities, the decontamination protocol would reduce or eliminate the risk.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. Impacts from surveys for listed herpetological species would typically be covered by a USFWS recovery permit. At this time, USFWS Recovery Permit TE-815214-10 does not include SWPT surveys. CDPR will include SWPT in an updated recovery permit if the species is ultimately listed. CRLF surveys are currently ongoing and have minimal impacts to SWPT.

SWPT and WSF surveys may be conducted in the HCP area in the future, particularly if they are listed. Funnel traps may be deployed to survey for SWPT, and pitfall traps may be deployed to survey for WSF. These surveys would be conducted by CDPR biologists or their USFWS-approved contractors for purposes of monitoring, identification, and management of the species. CDPR biologists or their contractors could affect mobile life stages of SWPT (i.e., hatchlings, juveniles, and adults) during monitoring surveys that involve funnel or pitfall trap surveys. During these surveys, CDPR biologists or their contractors could capture, injure, or kill a SWPT hatchling, juvenile, or adult, and biologists could inadvertently crush a nest. To reduce impacts associated with these surveys when they do occur, they would be conducted by trained and approved biologists. Biologists conducting herpetological surveys would all be trained in identification and avoidance measures for SWPT. Although capture of hatchling, juvenile, or adult SWPT could occur during SWPT or WSF surveys, mortality and/or injury would thus be minimized, if not eliminated. Information is currently limited on the spread of diseases affecting non-captive bred SWPT, such as respiratory disease and shell disease, but biologists do follow

decontamination protocols to prevent the spread of amphibian chytridiomycosis (USFWS 2005b, Cleveland 2023). To the extent diseases affecting SWPT could otherwise be spread by surveys, the decontamination protocol would reduce or eliminate the risk. Proposed SWPT AMMs 1–65 would be implemented as appropriate to avoid and/or minimize impacts to SWPT from SWPT and WSF surveys. Potential impacts to SWPT from SWPT and WSF monitoring are expected to be ***less than significant*** with implementation of applicable AMMs.

Habitat Management Program (CA-16) – Dune Slack Restoration. Jack Lake and Surprise Lake are potential SWPT aquatic habitat, and SWPT has been observed in Jack Lake according to iNaturalist (Figure 6-3). Nevertheless, these lakes are often shallow or dry and do not currently provide ideal habitat for SWPT. Restoration of Jack Lake and/or Surprise Lake is designed to provide aquatic habitat for SWPT, CRLF, and WSF and offset anticipated take impacts these species; therefore, the long-term impacts to SWPT are expected to be beneficial. If SWPT is present, restoration of Jack Lake and/or Surprise Lake could cause SWPT injury or mortality (including eggs, hatchlings, juveniles, and adults) or disturb individuals in the short-term. Restoration activities could also temporarily stir up sediment and cause turbidity in SWPT aquatic habitat. Pre-activity surveys would be conducted prior to commencing any activities disturbing suitable SWPT habitat to minimize effects of these activities on SWPT. If a SWPT is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determined the activities could continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, and/or biological monitoring. Lake restoration would also likely require agency permits and CDPR would follow permit conditions to protect water quality and sensitive biological resources, including SWPT. As a result, impacts from new restoration activities to SWPT would be ***less than significant***.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. Invasive aquatic predator control may include activities like bullfrog removal or the trapping of red-eared sliders and crayfish. These activities could involve installing funnel traps, direct targeting of individuals, and other work in aquatic habitats which could result in injury or death of SWPT. Funnel traps could inadvertently trap a SWPT. Direct targeting of bullfrog could also injure or harm SWPT. Removal of invasive or other non-native aquatic species is part of the management program specifically designed to offset the incidental take to SWPT from other covered activities; however, this management also has the potential to cause harm to SWPT. To reduce impacts associated with invasive animal control, these control methods would be conducted by qualified biologists/Natural Resource staff trained in those methods. They would also be familiar with identification and avoidance measures for SWPT. Pre-activity surveys would be conducted, at the discretion of a CDPR biologist, prior to commencing any activities that can disturb suitable SWPT habitat to minimize effects of these activities on SWPT. If a SWPT is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or would continue once they determine the activities can continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures.

Invasive aquatic predator control could also affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution would be taken to minimize disturbance to sediment and any sediment stirred up during activities would be minimal, localized, and temporary. As a result, this impact would not affect SWPT or their habitat in the long term.

Ultimately, invasive aquatic predator control would benefit SWPT by reducing invasive aquatic predators that may prey on or directly compete for habitat with SWPT. Potential impacts to SWPT from invasive aquatic predator control are ***less than significant*** with implementation of applicable AMMs.

General Facilities Maintenance (CA-21) – Mechanical Trash Removal. Mechanical trash removal would not occur in aquatic habitat areas or in vegetated dunes. Therefore, SWPT in aquatic habitat would not be impacted. Due to the distance from freshwater aquatic habitat, SWPT is not very likely to disperse through upland habitat in the geographic areas proposed for mechanical trash removal north of Post 6. Mechanical trash removal could kill or injure a SWPT if it dispersed through the area while mechanical raking was occurring. However, SWPT rarely disperse through open, barren sand areas where mechanical trash removal would occur. As a result, mechanical trash removal would be unlikely to impact SWPT. Therefore, potential impacts to SWPT from mechanical trash removal are ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). Reduction of the Boneyard Exclosure and 6 Exclosure would have ***no impact*** on SWPT or its habitat.

CDPR UAS Use for Park Activities (CA-52). CDPR UAS Use for park activities would have ***no impact*** on SWPT or its habitat.

Take of SWPT from Proposed New Covered Activities

Take numbers identified in the HCP as shown in Table 6-8 include incidental take from existing, proposed new, and potential future covered activities. Although many of the covered activities are currently occurring in the HCP area, very little is known about the actual impacts on SWPT since SWPT take associated with park visitor activities has rarely been observed, and the SWPT population size in the HCP area is not yet well known. The number of SWPT that may be killed or injured because of covered activities is difficult to quantify for the following reasons: 1) the size and extent of the SWPT population within the HCP area is not yet fully documented; and 2) the largely aquatic nature of SWPT, and the relatively small body size of SWPT juveniles and eggs makes finding a dead or injured SWPT of younger life stages unlikely. Therefore, the HCP's quantified take levels in the HCP area account for take that could occur and go undetected.

Of the eight proposed new covered activities, SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b), Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR UAS Use for Park Activities (CA-52) would not cause take because these activities are not in SWPT habitat and would not impact SWPT. If SWPT are encountered unintentionally during tidewater goby salvage, CDPR biologists could affect all SWPT life stages (i.e., hatchlings, juveniles, and adults). During SWPT and WSF monitoring (CA-14), CDPR biologists or their contractors could capture, injure, or kill a SWPT hatchling, juvenile, or adult, and biologists could inadvertently crush a nest. If SWPT is present, restoration of Jack Lake and/or Surprise Lake (CA-16) could cause SWPT injury or mortality (including eggs, hatchlings, juveniles, and adults). Invasive aquatic predator control (CA-17) could involve installing funnel traps, direct targeting of individuals, and other work in aquatic habitats, which could result in injury or death of SWPT. Although unlikely, mechanical trash removal (CA-21) could kill or injure a SWPT if it dispersed through the area while mechanical raking was occurring. Take from these activities is accounted for in the estimated SWPT take over the permit term in Table 6-8. However, mortality and injury from these activities would be

avoided in most cases by SWPT AMMs 1–65 and is expected to occur rarely, if at all. CA-14 and CA-17 would benefit SWPT overall by monitoring their population, restoring their habitat, and reducing predation. As a result, the proposed new covered activities would have a ***less than significant*** impact due to SWPT take.

Table 6-8. Summary of Estimated Southwestern Pond Turtle Take

Activities Causing Take	Estimated SWPT Take over the Permit Term[1]
All covered activities in aquatic and upland habitat other than recovery activities	8 adults/juveniles 30 hatchlings 50 eggs
SWPT Capture and Relocation – non-lethal take only	50 adults/juveniles/hatchlings

Notes:
[1]This HCP does not include annual take estimates, but the annual numbers presented in the text represent a worst-case scenario. If annual take numbers approach this worst-case scenario for any life stage during any one calendar year, CDPR will initiate additional consultation with USFWS to identify additional management activities that can be implemented. That annual trigger for consultation stands at 4 adults/juveniles, 10 hatchlings, and 20 eggs from all covered activities other than recovery activities.

6.3.2.4 California Red-Legged Frog

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would have ***no impact*** on CRLF.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. Tidewater goby salvage would only occur when water levels are low and other aquatic species such as CRLF are less likely to be present. Occasionally, egg masses and CRLF individuals could be present within tidewater goby salvage areas. If encountered unintentionally during salvage activities, CDPR biologists could impact CRLF eggs or tadpoles (juveniles or adults could likely move out of the salvage area). However, tidewater goby salvage would occur infrequently and only in isolated pools that are drying up, where any CRLF egg masses or tadpoles would be unlikely to survive even without tidewater goby salvage activities. As a result, impacts to CRLF during tidewater goby salvage would be ***less than significant***.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. Potential impacts to CRLF from SWPT and WSF monitoring would be similar to existing impacts from ongoing CRLF surveys and are expected to be minimal. Funnel traps for SWPT monitoring and pitfall traps for WSF monitoring could inadvertently trap juvenile or adult CRLF. To reduce impacts associated with these surveys when they do occur, they will continue to be conducted by a qualified biologist and will continue to be conducted in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF (USFWS 2005b) and other applicable survey guidance. As a result, although capture of adults/sub-adults/juveniles, tadpoles, or egg masses could occur, mortality and/or injury would continue to be minimized, if not eliminated. In addition, any capture of adults/sub-adults/juveniles, tadpoles, or egg masses is expected to continue to be low due to the relatively low number of CRLF that have been found in the HCP area during surveys to date. Therefore, potential impacts to CRLF from SWPT and WSF monitoring would be ***less than significant.***

Habitat Management Program (CA-16) – Dune Slack Restoration. Jack Lake and Surprise Lake are potential CRLF breeding habitat, although CRLF has not been observed in these lakes (Figure 6-4). Nevertheless, these lakes are often shallow or dry and do not currently provide ideal habitat for CRLF. Restoration of Jack Lake and/or Surprise Lake is designed to provide aquatic habitat for SWPT, CRLF, and WSF and offset anticipated take impacts these species; therefore, the long-term impacts to CRLF are expected to be beneficial. If CRLF is present, restoration of Jack Lake and/or Surprise Lake could cause CRLF injury or mortality (including eggs, tadpoles, juveniles, and adults) or disturb individuals in the short-term. Restoration activities could also temporarily stir up sediment and cause turbidity in CRLF aquatic habitat. Pre-activity surveys would be conducted prior to commencing any activities disturbing suitable CRLF habitat to minimize effects of these activities on CRLF. If a CRLF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determined the activities could continue with minimal risk to the safety of the CRLF, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, and/or biological monitoring. Lake restoration would also likely require agency permits and CDPR would follow permit conditions to protect water quality and sensitive biological resources, including CRLF. As a result, impacts from new restoration activities to CRLF would be ***less than significant***.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. Invasive aquatic predator control may include activities like bullfrog removal or the trapping of red-eared sliders and crayfish. These activities may involve installing funnel traps, direct targeting of individuals, and other work in aquatic habitats which could result in injury or death of CRLF. Funnel traps could inadvertently trap a CRLF. Direct targeting of bullfrog could also injure or harm CRLF. Removal of invasive or other non-native aquatic species is part of the management program specifically designed to offset the incidental take to CRLF from other covered activities; however, this management also has the potential to cause harm to CRLF. To reduce impacts associated with invasive aquatic predator control, these control methods would be conducted by qualified biologists/Natural Resource staff trained in those methods. They would also be familiar with identification and avoidance measures for CRLF. Pre-activity surveys would be conducted, at the discretion of a CDPR biologist, prior to commencing any activities that can disturb suitable CRLF habitat to minimize effects of these activities on CRLF. If a CRLF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or would continue once they determine the activities can continue with minimal risk to the safety of the CRLF, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures.

Invasive aquatic predator control could also affect CRLF by temporarily stirring up sediment and increasing turbidity. However, caution would be taken to minimize disturbance to sediment and any sediment stirred up during activities would be minimal, localized, and temporary. As a result, this impact would not affect CRLF or their habitat in the long term.

Ultimately, invasive aquatic predator control would benefit CRLF by reducing invasive aquatic predators that may prey on CRLF. Potential impacts to CRLF from invasive aquatic predator control are ***less than significant*** with implementation of applicable AMMs.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would not occur in aquatic habitat areas or in vegetated dunes. CRLF may disperse through upland habitat in the geographic areas proposed for mechanical trash removal north of

Post 6. Mechanical trash removal could kill or injure a CRLF if it dispersed through the area while mechanical trash removal was occurring. However, CRLF rarely disperse through open, barren sand areas where mechanical trash removal would occur. Mechanical trash removal would not occur at night when most dispersal occurs and, therefore, would be unlikely to impact CRLF. Therefore, the impact of this activity on CRLF would be ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). CRLF may disperse through upland habitat in the geographic areas proposed for exclosure reduction. CRLF typically disperse at night during wet weather. It is unlikely that visitor uses, such as motorized recreation, would be occurring at times when CRLF disperse. In addition, CRLF dispersal through areas open to motorized recreation is likely infrequent. Therefore, the impact of exclosure reductions on CRLF is ***less than significant***.

CDPR UAS Use for Park Activities (CA-52). UAS are not anticipated to disturb CRLF. Therefore, ***no impact*** on CRLF would occur.

Take of CRLF from Proposed New Project Activities

Take numbers identified in the HCP include incidental take from existing, proposed new, and potential future covered activities (Table 6-9). Take of CRLF associated with park visitor and operations activities has not been observed in the HCP area. The take numbers for CRLF reflect conditions based on past observations of events that could cause mortality or injury. The take numbers were estimated with the recognition that not every CRLF adult, subadult, tadpole, or egg mass may be detected. Although a worst-case scenario of take could have occurred in the past, this level of take is not expected to occur within the HCP area in most years .

No take beyond existing baseline conditions is anticipated from five proposed new activities (CA-12b SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities, CA-13 stranded tidewater goby salvage, CA-21 mechanical trash removal, CA-50 Reduction of the Boneyard Exclosure and 6 Exclosure, and CA-52 CDPR UAS Use for Park Activities) because these activities would have little to no effect on potentially occupied CRLF habitat. CA-14 SWPT and WSF monitoring, CA-16 dune slack restoration, and CA-17 invasive aquatic predator control could cause additional take of CRLF, but the potential for take would be minimized by implementation of applicable AMMs, and mortality or injury may be avoided in most cases. Take from these activities is accounted for in the estimated CRLF take over the permit term in Table 6-9. None of the proposed new covered activities would reduce CRLF habitat. As a result, the proposed new covered activities would have a ***less than significant*** impact due to CRLF take.

Table 6-9. Summary of Estimated CRLF Take

Covered Activity	Estimated CRLF Take over the Permit Term[1]
All covered activities in aquatic and upland habitat other than recovery activities	30 adults/sub-adults/juveniles 40 tadpoles 25 egg masses

Table 6-9. Summary of Estimated CRLF Take

Covered Activity	Estimated CRLF Take over the Permit Term[1]
Capture and Relocation; Non-lethal take only	300 adults/sub-adults/juveniles

Notes:
[1]This HCP does not include annual take estimates, but the annual numbers presented in the text represent a worst-case scenario. If annual take numbers approach this worst-case scenario for any life stage during any one calendar year, CDPR will initiate additional consultation with USFWS to identify any additional management activities that can be implemented. That annual trigger for consultation stands at 5 adults/sub-adults/juveniles, 5 tadpoles, and 2 egg masses from all covered activities other than recovery activities

6.3.2.5 Western Spadefoot

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). WSF are not expected to occur where SNPL adult, juveniles, chicks, and eggs are present. Therefore, SNPL chick and egg capture would have ***no impact*** on WSF.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. Tidewater goby salvage would only occur when water levels are low and other aquatic species such as WSF are less likely to be present. Rarely would egg clusters or WSF individuals be present within tidewater goby salvage areas, especially given tidewater goby use brackish water habitats. If encountered unintentionally during salvage activities, CDPR biologists could affect WSF eggs or tadpoles (juveniles and adults could likely move out of the salvage area). However, tidewater goby salvage would occur infrequently and only in isolated pools that are drying up, where any WSF eggs or tadpoles would be unlikely to survive even without tidewater goby salvage activities. As a result, impacts to WSF from tidewater goby salvage would be ***less than significant***.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. Impacts from surveys for listed herpetological species would typically be covered by a USFWS recovery permit. At this time, USFWS Recovery Permit TE-815214-10 does not include WSF surveys. CDPR will include WSF in an updated recovery permit if the species is ultimately listed. CRLF surveys are currently ongoing and have minimal impacts to WSF.

SWPT and WSF surveys may be conducted in the HCP area in the future, particularly if they are listed. Funnel traps may be deployed to survey for WSF, and pitfall traps may be deployed to survey for WSF. These surveys would be conducted by CDPR biologists or their USFWS-approved contractors for purposes of monitoring, identification, and management of the species CDPR biologists or their contractors could affect mobile life stages of WSF (i.e., tadpoles, juveniles, and adults) during monitoring surveys that involve funnel or pitfall trap surveys. Depending on the survey method used, CDPR biologists or their contractors could potentially capture, injure, or kill a SWPT hatchling, juvenile, or adult, and biologists could inadvertently crush a nest. During these surveys, CDPR biologists or their contractors could capture, injure, or kill a WSF tadpole, juvenile, or adult. To reduce impacts associated with these surveys when they do occur, they would be conducted by experienced biologists. Biologists conducting herpetological surveys would all be trained in identification and avoidance measures for WSF. Although capture of tadpoles, juvenile, and adult WSF could occur during WSF or SWPT surveys, mortality and/or injury would be minimized, if not eliminated. In addition, any capture of juvenile or adult WSF is expected to be low due to the low number of WSF that has been found in the HCP area. CDPR biologists would use the Recommended Equipment

Decontamination Procedures for CRLF (HCP Appendix J) to minimize potentially spreading Bd, including disinfecting equipment and clothing after entering a pond/stream or before entering a new pond where WSF may occur. Proposed WSF AMMs would be implemented as appropriate to avoid and/or minimize impacts to WSF from SWPT and WSF surveys. Potential impacts to WSF from SWPT and WSF monitoring are expected to be ***less than significant*** with implementation of applicable AMMs.

Habitat Management Program (CA-16) – Dune Slack Restoration. Jack Lake and Surprise Lake are potential WSF breeding habitat, although WSF has not been observed in these lakes (Figure 6-5). Nevertheless, these lakes are often shallow or dry and do not currently provide ideal habitat for WSF. Restoration of Jack Lake and/or Surprise Lake is designed to provide aquatic habitat for SWPT, CRLF, and WSF and offset anticipated take impacts these species; therefore, the long-term impacts to WSF are expected to be beneficial. If WSF is present, restoration of Jack Lake and/or Surprise Lake could cause WSF injury or mortality (including eggs, tadpoles, juveniles, and adults) or disturb individuals in the short-term. Restoration activities could also temporarily stir up sediment and cause turbidity in WSF aquatic habitat. Pre-activity surveys would be conducted prior to commencing any activities disturbing suitable WSF habitat to minimize effects of these activities on WSF. If a WSF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determined the activities could continue with minimal risk to the safety of the WSF, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, and/or biological monitoring. Lake restoration would also likely require agency permits, and CDPR would follow permit conditions to protect water quality and sensitive biological resources, including WSF. As a result, impacts from new restoration activities to WSF would be ***less than significant***.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. Invasive plant or animal control activities conducted in the HCP area to date are not known to have impacted WSF. Removal of invasive or other non-native aquatic species is part of the management program specifically designed to offset the incidental take to WSF from other covered activities; however, this management also has the potential to cause harm to WSF. CDPR biologists could directly affect all life stages of WSF (i.e., eggs, tadpoles, juveniles, and adults) by disturbing occupied habitat during standard invasive aquatic predator control efforts. Invasive aquatic predator control activities may require qualified biologists/Natural Resource staff or CDPR approved contractors to remove pest animals in suitable WSF habitat, including moist vegetated areas that WSF can use for dispersal. Activities like bullfrog removal can involve staff working in or adjacent to aquatic habitat which could involve the risk of crushing adults and juveniles, dislodging egg masses, stirring up sediment, or crushing burrows. To reduce impacts associated with invasive animal control, these control methods would be conducted by qualified biologists/Natural Resource staff trained in those methods. They would also be familiar with identification and avoidance measures for WSF. Pre-activity surveys would be conducted, at their discretion, prior to commencing any activities that could disturb suitable WSF habitat to minimize effects of these activities on WSF. If a WSF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or could proceed once they determine the activities can continue with minimal risk to the safety of the WSF, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. Ultimately, invasive aquatic predator control would benefit WSF by removing predators that may prey on WSF. As a result, impacts from invasive aquatic predator control would be ***less than significant***.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would not occur in aquatic habitat areas or in vegetated dunes. WSF may disperse through upland habitat or burrow in upland habitat in the geographic areas proposed for mechanical trash removal north of Post 6. Mechanical trash removal could kill or injure a WSF if it dispersed through the area while mechanical trash removal was occurring. Mechanical trash removal would not occur at night when most dispersal occurs and, therefore, would be unlikely to impact WSF. In addition, WSF are thought to be rare in the HCP area and dispersal through or aestivation in areas open to motorized recreation is likely very rare, if it occurs at all. Therefore, the impact of this activity on WSF would be ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). The East Boneyard Exclosure and 6 Exclosure would have ***no impact*** WSF or its habitat.

CDPR UAS Use for Park Activities (CA-52). UAS are not anticipated to disturb WSF. Therefore, ***no impact*** on WSF would occur.

Take of WSF from Proposed New Project Activities

Take numbers identified in the HCP as shown in Table 6-10 include incidental take from existing, proposed new, and potential future covered activities. Although many of the covered activities are currently occurring in the HCP area, very little is known about the actual impacts on WSF since WSF take associated with park visitor activities has not been observed, and few WSF have been documented in the HCP area. The number of WSF that may be killed or injured because of covered activities is difficult to quantify for the following reasons: 1) the number and location of WSF within a population vary from year to year; and 2) the aquatic nature of WSF, and the relatively small body size of WSF, particularly tadpoles and egg masses, makes finding a dead or injured WSF of any life stage unlikely. Therefore, the HCP's quantified take levels in the HCP area account for take that could occur and go undetected.

No additional take beyond existing baseline conditions is anticipated from five proposed new activities (CA-12b SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities, CA-13 stranded tidewater goby salvage, CA-21 mechanical trash removal, CA-50 reduction of the Boneyard Exclosure and 6 Exclosure, and CA-52 CDPR UAS use for park activities) because these activities would have little to no effect on potentially occupied WSF habitat. CA-14 SWPT and WSF monitoring, CA-16 dune slack restoration, and CA-17 invasive aquatic predator control could cause additional take of WSF, but the potential for take would be minimized by implementation of applicable AMMs, and mortality or injury may be avoided in most cases. Take from these activities is accounted for in the estimated WSF take over the permit term in Table 6-10. None of the proposed new covered activities would reduce WSF habitat. As a result, the proposed new covered activities would have a ***less-than-significant*** impact on WSF take.

Table 6-10. Summary of Estimated Western Spadefoot Take

Covered Activity	Estimated WSF Take over the Permit Term[1]
All covered activities in aquatic and upland habitat other than recovery activities	20 adults/sub-adults/juveniles 50 tadpoles 20 egg masses
Capture and Relocation; non-lethal take only	250 adults/sub-adults/juveniles

Table 6-10. Summary of Estimated Western Spadefoot Take	
Covered Activity	**Estimated WSF Take over the Permit Term[1]**
Notes: 1 This HCP does not include annual take estimates, but the annual numbers presented in the text represent a worst-case scenario. If annual take numbers approach this worst-case scenario for any life stage during any one calendar year, CDPR will initiate additional consultation with USFWS to identify any additional management activities that can be implemented. That annual trigger for consultation stands at mortality/injury of 8 adults/sub-adults/juveniles, 15 metamorphs/tadpoles, and 2 egg masses from all covered activities other than recovery activities.	

6.3.2.6 Tidewater Goby

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). Tidewater goby is not expected to occur where SNPL adult, juveniles, chicks, and eggs are present. Therefore, SNPL chick and egg capture would have ***no impact*** on tidewater goby.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. Capturing tidewater goby that have been isolated in pools or are in danger of mortality from low water conditions and relocating them into suitable habitat necessarily involves handling goby, which could pose a risk of injury or mortality. This salvage effort would ultimately allow individuals to survive, benefiting the local tidewater goby population. Only CDPR biologists and/or contractors with a 10(a)(1)(A) Recovery Permit for tidewater goby and/or USFWS approval would conduct tidewater goby salvage. In addition, CDPR biologists would utilize applicable AMMs to avoid and minimize impacts to tidewater goby during salvage activities. Therefore, all potential impacts to tidewater goby from salvage activities would be ***less than significant*** and beneficial overall.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring. Potential impacts to tidewater goby from SWPT and WSF monitoring would be similar to existing impacts from ongoing CRLF surveys and are expected to be minimal. When dipnet surveys are necessary to survey for herpetological species, tidewater goby could be captured in dipnets if the surveys occur in tidewater goby habitat. Tidewater goby egg burrows can also be disturbed or crushed if the dipnet survey is conducted during the tidewater goby breeding season. In addition, captured tidewater goby individuals could be injured or even killed when caught in the dipnet. However, dipnet surveys would continue to be conducted in a manner that minimizes disturbance to aquatic habitat when the SWPT, CRLF, or WSF habitat overlaps with tidewater goby habitat, and any captured fish would be released immediately at the capture site. Tidewater goby could potentially be trapped by a SWPT funnel trap, but traps would be checked frequently, and any captured fish would be released. As a result, impacts from herpetological surveys would be ***less than significant***.

Dipnet surveys could also stir up sediments and temporarily increase turbidity since surveyors must enter the water on foot to conduct the survey. Increased turbidity can reduce visibility for tidewater goby, resulting in reduced foraging success, difficulty escaping from predators, and reduced reproductive success if the survey occurs during the breeding season. However, sediment stirred up during activities would be minimal, localized, and temporary, and would not

affect tidewater goby or its habitat in the long term. Potential impacts to tidewater goby from SWPT and WSF monitoring would be ***less than significant***.

Habitat Management Program (CA-16) – Dune Slack Restoration. Jack Lake and Surprise Lake are not within tidewater goby occupied or critical habitat (HCP Map 17). As a result, ***no impact*** would occur.

Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. Invasive aquatic predator control may include activities like bullfrog removal or the trapping of red-eared sliders and crayfish. These activities may involve installing funnel traps, direct targeting of individuals, and other work in aquatic habitats that could result in injury or death of tidewater goby. Removal of invasive or other non-native aquatic species is part of the management program specifically designed to offset the incidental take to tidewater goby from other covered activities; however, this management also has the potential to cause harm to tidewater goby. To reduce impacts associated with invasive aquatic predator control, these control methods would be conducted by qualified biologists/Natural Resource staff trained in those methods. They would also be familiar with identification and avoidance measures for tidewater goby. Potential impacts to tidewater goby from invasive aquatic predator control would be ***less than significant***.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would have ***no impact*** on tidewater goby or its habitat.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). The East Boneyard Exclosure and 6 Exclosure reduction would have ***no impact*** on tidewater goby or its habitat.

CDPR UAS Use for Park Activities (CA-52). UAS are not anticipated to disturb tidewater goby. Therefore, ***no impact*** on tidewater goby would occur.

Take of Tidewater Goby from Proposed New Project Activities

Take numbers identified in the HCP as shown in Table 6-11 include incidental take from existing, proposed new, and potential future covered activities. Although many of the covered activities are currently occurring in the HCP area, very little is known about the actual impacts on tidewater goby since tidewater goby take associated with park activities has not been observed. The number of tidewater goby that may be killed or injured due to covered activities is difficult to quantify for the following reasons: 1) tidewater goby is difficult to detect because of its small body size, 2) finding a dead or injured specimen is unlikely and has rarely been observed by CDPR (Rischbieter, Douglas, pers. comm. 2024b), 3) finding a carcass and assigning a cause of death can be problematic, especially in the presence of numerous scavengers that are likely to find the animals soon after they die, and 4) the populations of tidewater goby in the HCP area are influenced by seasonal and/or annual events (e.g., drought or flood events) and thus fluctuate within the HCP area. Therefore, the HCP's quantified take levels in the HCP area account for take that could occur and go undetected (Table 6-11).

No additional take beyond existing baseline conditions is anticipated from seven of the eight proposed new activities (i.e., SNPL chick and egg capture for captive rearing if in harm's way [CA-12b]; SWPT and WSF monitoring [CA-14]; dune slack restoration [CA-16], invasive predator control [CA-17]; mechanical trash removal [CA-21]; reduction of the Boneyard Exclosure and 6 Exclosure [CA-50]; and CDPR's use of UAS [CA-52]). Over the term of the HCP, CDPR anticipates capturing up to 50 adult tidewater goby that have been isolated in pools or are in danger of mortality from low water conditions and relocating them into suitable habitat (CA-13). This salvage effort (non-lethal take) is intended to protect the species over the HCP term. None of the proposed new covered activities would reduce tidewater goby habitat. As a

result, the proposed new covered activities would have a ***less than significant*** impact on tidewater goby take.

Table 6-11. Summary of Estimated Tidewater Goby Take

Activity	Allowable Take of Individual Tidewater Goby over the Permit Term[1]
All covered activities other than recovery activities	15
Capture and Relocation, non-lethal take only	N/A[2]

Notes:

[1]The HCP does not include annual take estimates, but if annual take numbers approach a defined worst-case scenario for any life stage during any one calendar year, CDPR will initiate additional consultation with USFWS to identify any additional management activities that can be implemented. That annual trigger for consultation stands at mortality/injury of 5 individual adult tidewater goby from all covered activities other than recovery activities.

[2]No limit is placed on the number of relocated tidewater goby. CDPR estimates capture and relocation of 50 stranded tidewater goby over the HCP term.

6.3.2.7 Coast (California) Horned Lizard and Northern California Legless Lizard

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). Coast horned lizards and Northern California legless lizards are not expected to occur where SNPL adults, juveniles, chicks, and eggs are present. Therefore, SNPL chick and egg capture would have ***no impact*** on coast horned lizard and Northern California legless lizard.

Tidewater Goby and Salmonid Surveys (CA-13) –Tidewater Goby Salvage. Stranded tidewater goby salvage would occur in aquatic habitat where coast horned lizard and Northern California legless lizard do not occur. ***No impact*** to these species would occur.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. There is no suitable habitat for coast horned lizards and Northern California legless lizards in aquatic habitats where SWPT monitoring and invasive aquatic predator control would occur. Therefore, these activities would have no impact on coast horned lizards and Northern California legless lizards. Pitfall traps used for WSF monitoring in upland habitats could inadvertently trap coast horned lizards or Northern California legless lizards. To reduce impacts associated with these surveys, they will be conducted by a qualified biologist in accordance with applicable survey guidance. As a result, although capture of coast horned lizards or Northern California legless lizards could occur, mortality and/or injury would continue to be minimized, if not eliminated. Therefore, potential impacts to coast horned lizards or Northern California legless lizards from SWPT and WSF monitoring would be ***less than significant.***

Habitat Management Program (CA-16) – Dune Slack Restoration. According to the WHPP (CDPR 2024), a Northern California legless lizard has been observed at Jack Lake, and both species may be present in the back dunes near Jack Lake and Surprise Lake, although coast horned lizards are uncommon in the HCP area. Neither of these species is aquatic; therefore, they are not expected to be found within wetted parts of the lakes, though they could occur nearby within the approximately 4 acres of upland habitat that could be disturbed by restoration activities. If either species is present near the work area during restoration activities, restoration

of Jack Lake and/or Surprise Lake could cause injury or mortality to these species or disturb individuals in the short-term. Consistent with SPRs, a pre-activity survey would be conducted prior to commencing any activities disturbing suitable habitat for these species to avoid or minimize impacts. If a coast horned or Northern California legless lizard is observed, activities would be postponed until appropriate measures are in place, which may include buffers, relocation, monitoring, or other measures approved by CDPR qualified biologist/Natural Resources staff. Lake restoration would also likely require agency permits, and CDPR would follow permit conditions to protect water quality and sensitive biological resources. As a result, impacts from new restoration activities on coast horned lizard or Northern California legless lizard would be ***less than significant***.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would not occur in vegetated dunes or vegetation islands. Coast horned lizard or Northern California legless lizard may disperse through upland habitat in the geographic areas proposed for mechanical trash removal north of Post 6. Mechanical trash removal could kill or injure an individual of either species if it dispersed through the area while mechanical trash removal was occurring. Although areas where mechanical trash removal would occur are considered suitable upland habitat for coast horned lizard and Northern California legless lizard, and these species could disperse through such areas and be injured or killed by mechanical trash removal equipment, this habitat is likely infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover and the treatment areas are heavily used by the public for camping. As a result, the risk of this activity injuring or killing a coast horned lizard or Northern California legless lizard is expected to be low. Therefore, the impact of mechanical trash removal activity on coast horned lizard or Northern California legless lizard would be ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). Coast horned lizard has rarely been observed in the HCP area and it unlikely to be found within the East Boneyard Exclosure or 6 Exclosure. Coast horned lizard and Northern California legless lizard are most likely to occur within the vegetation islands and dust closure areas, which would remain closed off to motorized recreation. Coast horned lizard and Northern California legless lizard may disperse through patches of vegetation present within the areas proposed for exclosure reduction and thus be at risk of injury or mortality from vehicles. However, dispersal through these areas already open to motorized recreation on a seasonal basis is likely infrequent. Therefore. this activity would have a ***less-than-significant*** impact on coast horned lizard and Northern California legless lizard.

CDPR UAS Use for Park Activities (CA-52). UAS are not anticipated to disturb coast horned lizard or Northern California legless lizard. Therefore, ***no impact*** on these species would occur.

6.3.2.8 Western Burrowing Owl

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur during the avian breeding season; therefore, activities would have ***no impact*** on western burrowing owl which only occur in the HCP area in the winter.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage. Stranded tidewater goby salvage would occur in aquatic habitat where western burrowing owl does not occur. ***No impact*** on this species would occur.

Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. There is no suitable habitat for western burrowing owls in aquatic habitats where SWPT and WSF monitoring, dune slack restoration, and invasive aquatic predator control would occur. Therefore, these activities would have ***no impact*** on western burrowing owls.

Habitat Management Program (CA-16) – Dune Slack Restoration. Burrowing owls are not aquatic; therefore, they are not expected to be found within wetted parts of the lakes, though they could occur nearby within approximately 4 acres of upland habitat that could be disturbed by restoration activities. If burrowing owls are present near the work area during restoration activities, restoration of Jack Lake and/or Surprise Lake could crush occupied burrows or disturb individuals in the short-term. As part of SPRs, pre-activity surveys would be conducted prior to commencing any activities disturbing suitable habitat for these species to avoid or minimize impacts. If an occupied burrow is found, activities would be postponed until appropriate measures are in place, such as a buffer area, allowing the owl to leave the site on its own, biological monitoring, or other measures approved by CDPR qualified biologist/Natural Resources staff. Lake restoration would also likely require agency permits, and CDPR would follow permit conditions to protect water quality and sensitive biological resources. As a result, impacts from new restoration activities on burrowing owls would be ***less than significant***.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would occur in an open sand area with high OHV use. There is no suitable habitat for burrowing owls in this area and they are not expected to occur there. Therefore, ***no impact*** on burrowing owls or their habitat would occur.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). Reduction of the Boneyard Exclosure and 6 Exclosure would occur from March–September when burrowing owls are not present. The areas are already open to recreation from October through February under baseline conditions. As a result, reducing the East Boneyard Exclosure and 6 Exclosure would have ***no impact*** on western burrowing owl.

CDPR UAS Use for Park Activities (CA-52). CDPR may use UAS (e.g., drones) in the HCP area to cut down on the time and cost associated with data collection, especially in more remote areas. UAS flying over burrowing owl individuals could result in an individual flushing from the area or displaying increased vigilance. If the UAS is seen as a great enough threat, a burrowing owl could abandon its burrow or other winter cover and be exposed to predation and/or inclement weather. However, as part of the natural resources management program in the HCP area, AMMs would be implemented to ensure disturbance from UAS is minimized, including, but not limited to, ensuring UAS flight patterns are not erratic so they are not interpreted as an avian predator, flying UAS at least 100 feet above ground, and ensuring all non-emergency/public safety flights are approved by a qualified biologist . As a result, UAS are expected to have ***less-than-significant*** impacts on western burrowing owl.

6.3.2.9 Nesting Birds

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur on the open sand beaches when SNPL eggs or chicks are found to be at risk of being crushed, killed, or injured, especially from motorized recreation. The only birds known to nest on the open sand beaches are ground nesting birds, such as California horned lark and killdeer (*Charadrius vociferus*). If a nest was located

within or near a SNPL nest or chick that was captured for captive rearing, this activity could result in destruction of the nest or disturbance of the chicks/incubating adults. However, this activity would be conducted by a 10(a)(1)(A) permitted biologist (or a biologist approved by the USFWS) that would ensure any disturbance to other nesting birds was minimized. In addition, as part of SPRs, nesting bird surveys would be conducted, as determined to be necessary by a CDPR-approved biologist, prior to conducting activities. If a nest is observed, activities would be delayed until appropriate measures are in place, such as a no-disturbance buffer, biological monitoring, or other measures approved by CDPR qualified biologist/Natural Resources staff. As a result, this impact would be ***less than significant***.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. These activities would occur in aquatic habitat and generally outside of nesting bird habitat. However, if an active bird nest is located near aquatic habitat where these activities occur, activities during the breeding season could disturb nesting birds and deter them from incubating eggs or chicks during the period of disturbance. Specifically, adults could leave the nest exposing eggs or chicks to predation and/or inclement weather during the period of disturbance. Foraging adults could also be disturbed from foraging during the activities, which could lead to delays in the adults returning to the nest to provide food or incubate the eggs or chicks. However, as part of SPRs, all work would be scheduled outside of the nesting bird season or nesting bird surveys would be conducted, as determined to be necessary by a CDPR-approved biologist, prior to conducting activities. If a nest is observed, activities would be delayed until appropriate measures are in place, such as a no-disturbance buffer, biological monitoring, or other measures approved by CDPR qualified biologist/Natural Resources staff. As a result, this impact would be ***less than significant***.

Habitat Management Program (CA-16) – Dune Slack Restoration. Dune slack restoration could inadvertently destroy active bird nests or disturb nesting birds within or adjacent to the work area(s). Nesting adults could be driven from the nest and, ultimately, neglect or abandon the eggs or chicks. Foraging adults and chicks (if precocial) interrupted by humans stop foraging and move away from the area until the disturbance has passed. However, if activities occur during the breeding season, as part of SPRs, nesting bird surveys would be conducted, as determined to be necessary by a CDPR-approved biologist, prior to conducting dune slack restoration activities. If a nest is observed, activities would be delayed until appropriate measures are in place, such as a no-disturbance buffer, biological monitoring, or other measures approved by CDPR qualified biologist/Natural Resources staff. As a result, this impact would be ***less than significant***.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would occur in an open sand area with high OHV use. Mechanical trash removal would only occur above the wrack line and would be set back from creeks, riparian areas, and foredunes. Mechanical trash removal would also not occur within vegetated areas or areas encompassed by the seasonal exclosure (i.e., from Post 6 south). There is no suitable habitat for nesting birds in this area and they are not expected to occur there. Therefore, mechanical trash removal would have ***no impact*** on nesting birds or their habitat.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) The East Boneyard Exclosure and 6 Exclosure do not contain suitable nesting habitat for most nesting birds in the HCP area, including shrub- and tree-nesting species, such as raptors. As a result, ***no impact*** on these birds or their nests would occur from reducing the East Boneyard Exclosure and 6 Exclosure.

California horned lark is a ground nester and has infrequently been observed nesting within the seasonal exclosure area each year. With the Boneyard Exclosure and 6 Exclosure areas left open to recreation year-round, it is unlikely California horned larks would nest within these areas, especially given extensive and immediately adjacent areas of undisturbed habitat. As a result, this impact would be ***less than significant***.

CDPR UAS Use for Park Activities (CA-52). CDPR may use UAS (e.g., drones) in the HCP area to reduce the time and cost associated with data collection, especially in more remote areas. CDPR may use UAS for some activities (e.g., predator management, habitat enhancement, SNPL monitoring) during the breeding season in areas where nesting birds may be located. When drones are flown too close to bird nests, the noise and unfamiliar presence of drones could drive adult birds from the nest, which could lead to neglect or abandonment of eggs or chicks. Some birds, particularly raptors, are territorial, and drones may be perceived as a threat that should be attacked. This could divert adults from caring for their eggs or young or from foraging. As part of the natural resources program in the HCP area, measures are implemented to minimize impacts from UAS, including, but not limited to, ensuring UAS flight patterns are not erratic so they are not interpreted as an avian predator, flying UAS at least 100 feet above ground, and ensuring all non-emergency/public safety flights are approved by qualified biologist/Natural Resource staff. As a result, impacts from UAS are expected to be ***less than significant***. Overall, UAS would likely have ***beneficial*** impacts by collecting valuable information on habitat, nest locations (e.g., raptor nests), and predators within the HCP area.

6.3.2.10 Wintering/Migratory Birds

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur during the avian breeding season; therefore, activities would have ***no impact*** on wintering/migratory birds.

Tidewater Goby and Salmonid Surveys (CA-13) – Stranded Tidewater Goby Salvage, Monitoring; Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Habitat Restoration Program (CA-16) – Dune Slack Restoration; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. These activities would occur primarily in aquatic habitat and adjacent areas and thus would likely only have the potential to affect waterbirds and shorebirds. Stranded tidewater goby salvage, SWPT and WSF monitoring, dune slack restoration, and/or invasive aquatic predator control could temporarily disturb wintering or migrating waterbirds and shorebirds by flushing them and/or precluding them from foraging and roosting in the work area, but this impact would be short-term and localized. Therefore, potential impacts from these activities on wintering/migratory birds would be ***less than significant***.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would only occur above the wrack line and would be set back from creeks, riparian areas, and foredunes. Mechanical trash removal would also not occur within vegetated areas or areas encompassed by the seasonal exclosure (i.e., from Post 6 south). Mechanical trash removal activities could result in equipment injuring or killing a foraging or roosting wintering/migratory bird within the area where activities occur. However, as part of the natural resource management program in the HCP area, mechanical trash removal equipment would not exceed 10 miles per hour; therefore, most wintering/migratory birds would be expected to fly out of harm's way. In addition, CDPR Environmental Scientist staff would inspect and approve the area subject to

mechanical trash removal prior to each deployment. As a result, mortality and/or injury to wintering/migratory birds are not expected, and impacts from mechanical trash removal activities on wintering/migratory birds would be ***less than significant***.

Mechanical trash removal activities could disturb wintering/migratory birds by temporarily flushing them and/or precluding them from foraging and roosting in these areas. However, this disturbance would be relatively short-term and temporary. Mechanical trash removal is also typically conducted in areas of high recreation activity that are already subject to disturbance. Likewise, additional open beach foraging habitat is present in the HCP area for wintering and migratory birds to forage during the period of disturbance. As a result, disturbance from mechanical trash removal would be minimal, and impacts from mechanical trash removal activities on wintering/migratory birds would be ***less than significant***.

Mechanical trash removal could affect favorable foraging and/or roosting habitat for wintering/migratory birds above the wrack line by altering dune composition and topography. Specifically, mechanical trash removal could reduce organic surface materials (e.g., driftwood) and microtopography. Most mechanical trash removal would be conducted to remove litter in areas where recreation activities have been concentrated, and the substrate is already highly disturbed. These areas are already expected to be subject to habitat alteration that could reduce organic surface material and microtopography. As a result, mechanical trash removal would have ***less than significant*** habitat impacts on wintering/migratory bird foraging and/or roosting habitat.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). The Boneyard Exclosure and 6 Exclosure areas already remain open October through February; thus, CA-50 would not change conditions for wintering/migratory birds during those months. Migrating birds that might otherwise utilize the Boneyard Exclosure or 6 Exclosure areas during the spring or fall migration would presumably continue to utilize the extensive and immediately adjacent areas of undisturbed habitat. As a result, the impact from reducing the East Boneyard Exclosure and 6 Exclosure on migrating or wintering birds within the HCP area would be ***less than significant***.

CDPR UAS Use for Park Activities (CA-52). CDPR may use UAS (e.g., drones) in the HCP area to cut down on the time and cost associated with data collection, especially in more remote areas. CDPR may use UAS for some activities (e.g., predator management, habitat enhancement, SNPL monitoring, law enforcement) during the non-breeding season in areas where migratory birds may be present. When drones are flown too close to flocks or individual birds, the noise and unfamiliar presence of drones could deter flocks or individual birds from foraging and or roosting. However, any impacts would be temporary and only last during the time the drone is being flown over. In addition, as part of the natural resources program in the HCP area, measures are implemented to minimize impacts from UAS, including, but not limited to, flying UAS at least 100 feet above ground and ensuring all non-emergency/public safety flights are approved by qualified biologist/Natural Resource staff. As a result, impacts from UAS are expected to be ***less than significant***.

6.3.2.11 Roosting Bats

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b); General Facilities Maintenance – Mechanical Trash Removal (CA-21); Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). These activities would occur in open sand or sparsely vegetated areas and would not impact wooded areas or aquatic habitats

suitable for roosting and/or foraging bats. In addition, SNPL chick and egg capture and mechanical trash removal would occur during the daytime when bats are not active. Therefore, these activities would have ***no impact*** on roosting bats.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. These activities would occur in aquatic habitat that could be suitable foraging habitat for bats; however, the activities would occur in the daytime when bats are not active. In addition, similar ongoing activities such as tidewater goby and salmonid surveys, CRLF surveys, and incidental invasive aquatic predator control have been found not to impact roosting bats. Therefore, these activities would have ***no impact*** on roosting bats.

Habitat Management Program (CA-16) – Dune Slack Restoration. Arroyo willow thickets are present near Jack and Surprise Lakes, which could provide roosting habitat for western red bats and more common species of bats found in riparian areas, such as Yuma myotis (*Myotis yumenensis*) and California myotis (*Myotis californicus*). If arroyo willows or other riparian trees are removed during restoration activities, roosting bats could be injured, killed, or displaced. However, as part of SPRs, if suitable roosting habitat is present, CDPR would conduct surveys for roosting bats, as determined to be necessary by a CDPR qualified biologist/Natural Resources staff, prior to removing trees to avoid harm and injury to bats. If roosting bats are present, work that might directly impact bat roosts or significantly disturb roosting bats would be delayed until appropriate measures are in place, such as a buffer, biological monitoring, or adjusting the timing of project activities to avoid roosting bats. As a result, potential impacts to roosting bats from dune slack restoration would be ***less than significant***.

CDPR UAS Use for Park Activities (CA-52). This activity would occur in the daytime and would not be affecting suitable bat roosting or foraging habitat, such as wooded areas or aquatic habitat. ***No impact*** on roosting bats would occur.

6.3.2.12 American Badger

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b); General Facilities Maintenance – Mechanical Trash Removal (CA-21); Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). American badgers and/or badger dens have never been observed within the areas open to motorized recreation. American badger tracks were observed in April 2019 in the open riding area within and near BBQ flats and adjacent vegetation islands. This is the first time badger tracks or any other sign have been observed in this area, and the tracks indicate the badger was using the vegetation islands, which are closed to motorized recreation. Overall, American badgers are unlikely to occur in areas already open to motorized recreation. As a result, these activities would have ***no impact*** on American badger.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. These activities would occur in aquatic habitat and outside of American badger habitat. Therefore, these activities would have ***no impact*** on American badger.

Habitat Management Program (CA-16) – Dune Slack Restoration. One to two badger dens have been found in the Dune Lakes property each year according to the WHPP (CDPR 2024). They

are not expected to be found in the wetted portions of Jack Lake or Surprise Lake but they could be found in nearby upland areas. If American badgers are present in the work area, restoration activities could crush dens or disturb badgers and ultimately result in den abandonment. As part of SPRs, pre-construction surveys would be conducted, as determined to be necessary by a CDPR qualified biologist/Natural Resources staff, prior to conducting dune slack restoration activities in suitable habitat to avoid impacts to American badger. If an individual or occupied den is observed during the pre-construction survey, activities would be delayed until appropriate measures are in place, such as a no-disturbance buffer, biological monitoring, or other measures approved by CDPR qualified biologist/Natural Resources staff. As a result, impacts on American badger would be ***less than significant***.

CDPR UAS Use for Park Activities (CA-52). UAS have been shown to increase the heart rate of bears and cause female bears with cubs to run (Ditmer, et al. 2015). Therefore, UAS in the HCP area could result in a stress response from badgers or cause badgers to abandon their dens. However, as part of the natural resource management program, CDPR implements regulations for UAS flights including regulating the flight heights and ensuring all non-emergency/public safety flights are approved by qualified biologist/Natural Resource staff. As a result, this impact on American badger would be ***less than significant***.

6.3.2.13 Plants

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur on foot in open sand areas and would have ***no impact*** on special-status plant species.

Tidewater Goby and Salmonid Surveys (CA-13) – Stranded Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. Similar activities (tidewater goby and salmonid surveys under CA-13, CRLF monitoring under CA-14 and incidental removal of aquatic invasive species under CA-17) have been found not to impact listed plants (HCP section 4.10.2.2). Therefore, stranded tidewater goby salvage, SWPT and WSF, monitoring and invasive aquatic predator control are not expected to impact listed plants or other special-status plants. ***No impact*** would occur.

Habitat Management Program (CA-16) – Dune Slack Restoration. Dune slack restoration at Jack and/or Surprise lakes would incorporate transitional banks and swales that provide La Graciosa thistle habitat. Restoration activities, however, including site access, equipment staging, excavation, and sediment/substrate spreading, could occur within or adjacent to habitat for La Graciosa thistle and Nipomo Mesa lupine. AMMs including pre-activity surveys, avoidance, and salvage and relocation would be implemented. As a result, adverse effects from habitat restoration on these two special-status plants or their seed banks are considered minimal, with restoration ultimately benefiting La Graciosa thistle.

Other special-status plants (CRPR listed species) that could occur in Jack or Surprise lakes or nearby upland areas include Nuttall's milkvetch, Monterey Coast paintbrush, coastal goosefoot, Douglas' spineflower, paniculate tarplant, dune larkspur, Blochman's leafy daisy, suffrutescent wallflower, Kellog's horkelia, southwestern spiny rush, blushing layia, fuzzy prickly phlox, crisp monardella, San Luis Obispo monardella, California spineflower, coastal woolly-heads, Hickman's popcornflower, sand almond, and Blochman's ragwort. These species could be crushed by equipment, and/or suitable habitat areas could be temporarily disturbed or removed.

Consistent with SPRs, CRPR listed plants would be avoided if feasible, although a small number of these plants could be permanently or temporarily impacted. However, dune slack restoration would impact a small area relative to the overall habitat available to these species in the HCP area, and most impacts would be temporary. Dune slack restoration could also improve habitat for wetland CRPR listed species such as paniculate tarplant, southwestern spiny rush, and Hickman's popcornflower. Therefore, potential impacts on special-status plants or their seed banks from dune slack restoration would be ***less than significant***.

Critical Habitat Impacts: Both Jack and Surprise lakes occur within critical habitat for La Graciosa thistle. Potential impacts to La Graciosa thistle critical habitat are discussed below in section 6.3.3 and were determined to be ***less than significant*** and beneficial overall.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would only occur above the wrack line in the Grand Avenue and Pier Avenue entrance areas, the Post 2 trash dumpster areas, Post 2 south to Post 4.5, and the open area to Post 6 (which is east of the 48-acre foredune area), all of which are areas already heavily disturbed by recreation and other park operations. Mechanical trash removal would not occur within vegetated areas, within any fenced closed areas where SNPL and CLTE nesting occurs, or near any lagoon or creek. Most special-status plant occurrences are within the vegetated backdunes and/or in wetland areas, and there is limited suitable habitat for special-status plants in the mostly unvegetated foredune areas where mechanical trash removal would occur. Although unlikely, special-status plant species known to occur in foredune areas and/or that are locally common and widespread in the HCP area could occur within sand dune areas and/or areas with sparse vegetation north of Post 6, including red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, surf thistle, beach spectaclepod, Blochman's leaf daisy, suffrutescent wallflower, dunedelion, crisp monardella, California spineflower, South Coast branching phacelia, and Blochman's ragwort. If special-status plant species were to occur in the areas where mechanical trash removal is allowed, these activities could crush or destroy special-status plant species individuals. However, mechanical trash removal would be conducted to remove litter in areas where recreation activities have been concentrated and the substrate is already highly disturbed. These areas are unlikely to support special-status plants due to the high level of recreation. As a result, impacts from mechanical trash removal would be ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). In general, areas within the 6 and East Boneyard Exclosures consist of bare sand and do not contain suitable habitat or known occurrences of special-status plant species. Both the Boneyard and 6 Exclosure areas are already open to seasonal recreation (October through February) and thus subject to disturbance from recreation and other park operations. Reducing the exclosure area would result in the areas being disturbed March through September as well, i.e., year-round. Although unlikely, special-status plant species known to occur in foredune areas and/or that are locally common and widespread in the HCP area could occur within the Exclosures in sparse vegetation, including red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, surf thistle, beach spectaclepod, Blochman's leaf daisy, suffrutescent wallflower, dunedelion, crisp monardella, California spineflower, South Coast branching phacelia, and Blochman's ragwort. If special-status plant species occur in the Exclosure areas, reduction of the Exclosures could increase the risk of the species being run over by a vehicle or trampled from recreational activities. However, according to the HCP section 4.10.2.1.1, motorized recreation is considered to have a minimal direct effect on listed plant individuals to date due to lack of occurrences and suitable habitat in those areas, and this condition is expected to continue in the future. This is likely true for other special-status plant species in the HCP area as well, and the locally common and widespread species occur in

numerous other more suitable parts of the HCP area, in particular in areas closed to intensive recreation. Furthermore, the areas within the Exclosures are likely already heavily disturbed by existing OHV recreation, and this condition is unlikely to be significantly exacerbated by reducing the Exclosures. Therefore, impacts on special-status plants from the reduction of the 6 and Boneyard Exclosures would be ***less than significant***.

Critical Habitat Impacts: The Boneyard Exclosure may overlap with critical habitat for La Graciosa thistle. The HCP (section 4.11.3) indicates that critical habitat areas outside of the vegetation islands do not currently contain the physical and biological features for La Graciosa thistle in appropriate quantity and spatial arrangement necessary to provide the features essential to the conservation of La Graciosa thistle. These areas were designated as critical habitat because the vegetation islands may migrate beyond their current boundaries in the foreseeable future (USFWS 2009d) and, as a result, could be considered suitable habitat for La Graciosa thistle at that time. Motorized recreation may affect critical habitat by crushing vegetation, seedlings, and seeds of plants representative of the vegetation islands, including La Graciosa thistle that may occur outside of the protected vegetation islands thereby preventing migration of vegetation in these islands into the areas open to riding. Motorized recreation may indirectly affect the vegetation islands by increasing sand movement into the vegetated islands and other vegetated critical habitat. However, the Boneyard Exclosure has typically been open to motorized recreation five months out of the year, and opening it year-round would not significantly exacerbate impacts to La Graciosa thistle critical habitat. Therefore, this impact is ***less than significant***.

CDPR UAS Use for Park Activities (CA-52). UAS would be used aerially and would have ***no impact*** on special-status plant species.

6.3.3 Sensitive Habitats

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur on foot in open sand areas and would have ***no impact*** on sensitive habitats.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. Stranded tidewater goby salvage, SWPT and WSF monitoring, and invasive aquatic predator control would involve biologists entering aquatic habitat for short periods of time, which could temporarily cause turbidity or disturbance to vegetation in sensitive aquatic habitats, including CDFW sensitive natural communities (black cottonwood forest and woodland, Arroyo willow thickets, salmon berry – wax myrtle scrub, California bulrush marsh), tidewater goby critical habitat, and/or ESHA (coastal streams, riparian woodland, perennial freshwater marsh, freshwater lakes, wetlands, and habitat that supports threatened and endangered species). These activities would be undertaken by qualified biologists familiar with the special-status species and sensitive habitats present in the aquatic habitats where salvage, surveys, and predator control would take place, and trained in implementing applicable AMMs and SPRs; adverse effects would be minimal. These activities would likely benefit tidewater goby critical habitat and other aquatic habitat by improving data on SWPT and WSF and removing aquatic predators. Therefore, potential impacts to sensitive habitats from tidewater goby salvage, SWPT and WSF surveys and aquatic invasive predator control would be ***less than significant***.

Habitat Management Program (CA-16) – Dune Slack Restoration. Dune slack restoration would occur in and near Surprise Lake and/or Jack Lake, which are within designated La Graciosa thistle critical habitat and may support CDFW sensitive natural communities (Arroyo willow thickets, California bulrush marsh) and/or ESHA (riparian woodland, perennial freshwater marsh, freshwater lakes, wetlands, and habitat that supports threatened and endangered species). The restoration of Surprise Lake and/or Jack Lake is expected to benefit sensitive aquatic and riparian habitats in the long-term, but could have short-term negative impacts during construction such as temporarily disturbing or removing sensitive habitats due to access, use of heavy equipment, excavation, and/or grading. AMMs and SPRs include pre-project surveys for special-status species including La Graciosa thistle, flagging areas for avoidance, worker environmental training, and biological monitoring as needed. In addition, any removed or disturbed sensitive vegetation communities or aquatic habitats would be restored and/or revegetated as part of the lake restoration. Lake restoration would also likely require agency permits, and CDPR would follow permit conditions to protect water quality and sensitive biological resources, including sensitive habitats. Therefore, potential impacts to sensitive habitats, including designated La Graciosa thistle critical habitat, from dune slack restoration would be ***less than significant*** and beneficial overall.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal is proposed to occur within unvegetated areas along the shoreline and margin of the foredunes, above the wrack line (i.e., outside of the intertidal zone). The area affected would be a 200- to 300-foot-wide, narrow swath of beach sand sheet occurring between the active wrack line and foredunes. No mechanical trash removal is proposed in the dunes east of the foredune exclosure or south of Post 6. Mechanical trash removal would also avoid all live vegetation and aquatic areas. As a result, mechanical trash removal is only expected to impact bare, open sand areas that are already subject to ongoing disturbance. However, mechanical trash removal may occur within SNPL critical habitat as well as ESHA (sand dunes and habitat that supports threatened and endangered species). Mechanical trash removal could temporarily remove favorable constituents within SNPL critical habitat as well as ESHA by altering beach sand composition and topography. Specifically, mechanical trash removal could reduce organic surface materials (e.g., driftwood) and microtopography. Most mechanical trash removal would be conducted to remove litter in areas where recreation activities have been concentrated. The area proposed for mechanical trash removal has long supported an ongoing high level of recreation and other disturbance (i.e., presence of humans, pets, vehicles, and/or human attracted predators).[36]

A literature review of the effects of beach grooming was conducted for this EIR (MIG, Inc. 2025b) found no literature addressing long-term nature of impact of mechanical raking in barren sand areas above the wrack line and already subject to intensive vehicle use was identified.

AMMs provide adequate controls to avoid known sensitive areas (e.g., wrack line, creeks, vegetated areas), monitoring area to be treated in advance of equipment operation, and further study regarding invertebrate population in an abundance of caution. AMMs would be further refined if study of invertebrate populations shows a significant decline. Modifications to the AMMs include identifying areas where wrack is more prolific and increasing raking restrictions.

[36] USFWS acknowledged that SNPL critical habitat at Oceano Dunes SVRA was already degraded at the time of listing by recreation activities, but it did not preclude the USFWS from designating it as critical habitat (USFWS 2012a).

Based on a clear restriction of mechanical raking activity to less sensitive areas and the limited scope and severity of physical changes that would occur as a result of operating the equipment, the impacts to ESHA are determined to be less than significant. In addition, mechanical trash removal may improve the habitat by removing trash from the area. As a result, impacts to sensitive habitats would be ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). As described in section 6.3.2.1 and 6.3.2.13, the impacts of CA-50 on SNPL and La Graciosa thistle critical habitat would be ***less than significant***.

CA-50 would not open up new areas to OHV use in ESHA, although it would change seasonal use patterns. The subject exclosure areas are located within a legislatively authorized park unit set aside specifically for balanced OHV recreation opportunity. OHV use is consistent with the designated and permitted use of this property, and the areas affected by CA-50 are not new to OHV use, were open to OHV use at the time of ESHA designation in the LCP and have been managed for seasonal (October through February) recreation for over two decades. East Boneyard (47 acres) and the 6 Exclosure (62 acres) were open to year-round recreation prior to park inception (1974) until ~2000 and 2004, respectively, with the latter expansion intended to be interim until such a time as an HCP could be completed and an ITP issued by the USFWS for incidental take caused by park operations.

The reduction of 6 Exclosure would occur in ESHA, which provides primary nesting habitat for both SNPL and CLTE. As described in sections 6.3.2.1 and 6.3.2.2, the impacts of reducing the 6 Exclosure on SNPL and CLTE would not be significant. Although CA-50 would eliminate seasonal fencing protecting nesting habitat, it would not fundamentally change the beach landscape. Also, the method of monitoring and readjusting the condition of the exclosure is consistent with the recommendations in the San Luis Obispo Coastal Plan Policy Recreation and Visitor Serving Facilities section.

The elimination of the East Boneyard seasonal closure would not be a significant impact on an ESHA area. While generally mapped as ESHA, the area does not support vegetation. As described in sections 6.3.2.1 and 6.3.2.2, the area has very limited SNPL and almost no CLTE habitat value. As such, East Boneyard is not high-quality habitat, and its year-round use by recreation would not impair habitat values or defining characteristics of ESHA.

As described above in consistency with LCP policies concerning ESHA, the LCP recognizes the need for site specific evaluations when considering project impacts in locations broadly mapped as ESHA. The LCP acknowledges that high intensity recreational uses can be compatible with dry sandy areas. The HCP with its comprehensive suite of AMMs demonstrate how terrestrial ESHA will be protected. As a result, the impacts to protected species have been minimized and the impact on ESHA from lifting the access restriction at the Post 6 and East Boneyard section of the riding area would be ***less than significant***.

The USFWS is the regulatory authority under FESA Section 7 to assess impacts to SNPL and La Graciosa thistle critical habitat from all proposed ITP covered activities identified in the HCP. The USFWS has prepared a Draft EA, which also concludes that the conservation program preserves the functionality of critical habitat, which includes the same areas as ESHA. The Draft EA for the Oceano Dunes HCP concludes the impacts to critical habitat from all ITP covered activities, including CA-50, would not be significant.

CDPR UAS Use for Park Activities (CA-52). UAS does not involve ground disturbance or habitat modification of any kind. This action would have ***no impact*** on sensitive habitats.

6.3.4 Jurisdictional Waters

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur on foot in open sand areas and would have ***no impact*** on state or federal jurisdictional waters.

Tidewater Goby and Salmonid Surveys (CA-13) – Stranded Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. These activities could cause short-term turbidity in state and federal jurisdictional waters during salvage activities, surveys, and/or predator control, but would have no permanent impact on jurisdictional waters and would not require permits from agencies with jurisdiction over these waters. Therefore, potential impacts on jurisdictional waters from these activities would be ***less than significant***.

Habitat Management Program (CA-16) – Dune Slack Restoration. Dune slack restoration would occur in and near Surprise Lake and/or Jack Lake, which are under the jurisdiction of the RWQCB and CDFW, and restoration activities would likely require permits from these agencies. Neither lake is under USACE jurisdiction. Dune slack restoration is expected to benefit jurisdictional waters overall by improving aquatic habitat, and CDPR would implement applicable AMMs and SPRs to avoid and minimize impacts during construction. CDPR would also obtain any required permits and would adhere to permit conditions required to protect water quality and sensitive biological resources. Therefore, potential impacts from dune slack restoration on state jurisdictional waters would be ***less than significant*** and beneficial overall.

Mechanical Trash Removal (CA-21); Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). These activities would occur in upland habitat and would have ***no impact*** on state or federal jurisdictional waters.

CDPR UAS Use for Park Activities (CA-52). UAS are used aerially and would have ***no impact*** on state or federal jurisdictional waters.

6.3.5 Wildlife Movement and Nursery Sites

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activities and Other Non-Covered Species Management Activities (CA-12b). SNPL chick and egg capture would occur on foot in open sand areas. This activity could deter wildlife from moving through the area during the period of disturbance; however, it would not create an impediment to wildlife movement. This activity would have a beneficial effect on SNPL nursery sites by improving chick and egg survival rates. As a result, the impact would be ***less than significant***.

Tidewater Goby and Salmonid Surveys (CA-13) – Tidewater Goby Salvage; Monitoring and Management for Listed Herpetological Resources (CA-14) – SWPT and WSF Monitoring; Invasive Plant and Animal Control (CA-17) – Invasive Aquatic Predator Control. These activities would occur in aquatic habitat and could temporarily deter aquatic animals from moving through the area during the period of disturbance; however, it would not create an impediment to wildlife movement or have any long-term impacts on nursery sites. As a result, the impact would be ***less than significant***.

Habitat Management Program (CA-16) – Dune Slack Restoration. Restoration of Jack Lake and/or Surprise Lake is expected to benefit nursery sites for SWPT, CRLF, WSF, and other

aquatic wildlife in the long-term. Restoration activities could have a temporary impact on aquatic wildlife movement and/or nursery sites within the lakes if they have to be dewatered and/or graded during restoration activities. Aquatic and terrestrial wildlife could also be deterred from moving through the work area during restoration activities. All impacts would be temporary, and no physical barriers to wildlife movement would be installed. In addition, CDPR would implement applicable AMMs and SPRs such as pre-activity surveys for special-status species and nesting birds, postponement of work if a species and/or nest is found, biological monitoring, and other applicable measures to avoid and minimize impacts to wildlife movement and nursery sites. Lake restoration would also likely require agency permits, and CDPR would follow permit conditions to protect water quality and sensitive biological resources. As a result, potential impacts of new restoration activities on wildlife movement and nursery sites would be ***less than significant*** and beneficial overall.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would occur in most heavily used beach areas at Grand Avenue and Pier Avenue and between Post 2 and Post 6. Tractor use could briefly deter wildlife from moving through the area during the period of disturbance; however, tractor use would not create an impediment to wildlife movement. There are no wildlife nursery sites in the area where mechanical trash removal could occur (see discussion of the effects of mechanical trash removal on SNPL and CLTE in sections 6.3.2.1 and 6.3.2.2, respectively). As a result, the impact would be ***less than significant***.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). Reduction of the East Boneyard Exclosure and 6 Exclosure would expose 109 acres of additional habitat to motorized and non-motorized recreation, which would likely deter wildlife from moving through the previously protected area. However, motorized and non-motorized recreation are already occurring in areas surrounding the East Boneyard Exclosure and 6 Exclosure; therefore, wildlife species are likely already deterred from moving through much of this area when recreation is occurring. In addition, wildlife with low dispersal distances, such as small mammals and reptiles, would be impacted by the exclosure reduction since they may avoid moving through the area open to recreation and, therefore, the exclosure reduction would restrict the habitat available for them to move through. Despite this, the exclosure reduction would not create a barrier or impediment to wildlife movement in the HCP area since habitat free from recreation activities would still be available in the HCP area. Removing the exclosure fencing, which currently creates a physical barrier to large mammals migrating through the area, would allow large mammals to move through an additional 109 acres of habitat, although this is unlikely since the area is subject to a large amount of recreation disturbance, and large mammals may not use this area during migration. As a result, exposure of an additional 109 acres of additional habitat to recreation would have ***less-than-significant*** impacts on wildlife movement. Potential impacts to SNPL and CLTE nursery sites are discussed in sections 6.3.2.1 and 6.3.2.2, respectively.

CDPR UAS Use for Park Activities (CA-52). UAS use could result in temporary disruption of wildlife movement during use by deterring them from migrating through the area. However, no barriers or impediments to wildlife movement would occur. AMMs would be implemented to avoid impacts to SNPL and CLTE wildlife nursery sites from UAS. As a result, all impacts would be temporary and are considered ***less than significant.***

6.4 CUMULATIVE IMPACTS

6.4.1 Special-Status Species

Per the project impact analysis presented in EIR section 6.2.3, the proposed new covered activities (CA-12b, CA-13, CA-14, CA-16, CA-17, CA-21, CA-50, and CA-52) would not have impacts on monarch butterfly, steelhead, marsh sandwort, and Gambel's watercress, and are unlikely to impact Coast Range newt, two-striped garter snake, wood stork, golden eagle, California black rail, western yellow-billed cuckoo, olive-sided flycatcher, purple martin, and yellow-breasted chat. Therefore, there would be no cumulative impacts on these species, and they are dismissed from further discussion in this EIR. Direct and indirect impacts of potential future projects contemplated by the HCP on these species would be evaluated at the time they are proposed. The proposed new covered activities could have potential impacts on the remaining special-status species, including certain HCP covered species. These impacts have been determined to be less than significant. The proposed new HCP covered activities could result in a significant cumulative impact if they impact the same species and habitats as foreseeable future projects. The cumulative effects would be less than significant if the AMMs, SPRs, or other measures mitigate the potential impacts and there is not a significant cumulative loss of habitat or special-status species.

Potential future projects considered in the cumulative analysis are identified in EIR section 3.3, Table 3-1. An overview of the risk of impacts of these activities on special-status species is presented in Table 6-12 (wildlife) and Table 6-13 (plants). Risk is defined as both the likelihood and magnitude of effect. As a result, risk is weighing both the frequency and severity of the impact. Therefore, even though an impact may be expected to occur, it may not result in a high or moderate risk if the impact is considered infrequent or is not severe. The risks of impact are classified as either high (H), moderate (M), low (L), no (N), and/or beneficial (B). These classifications are defined in the tables.

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Table 6-12 Cumulative Risk of Impacts to Special-Status Animal Species

Covered Activity	ITP-Covered Animals						Non-Covered Animals						
	Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater Goby	Coast Horned Lizard	Northern California Legless Lizard	Burrowing Owl	Nesting Birds[2]	Wintering/ Migratory Birds	Roosting Bats	American Badger
Oceano Dunes District HCP Covered Activities – Potential Future Projects													
CA-12b SNPL Adult Banding	M, B	L	N	N	N	N	N	N	N	L	N	N	N
CA-12b Habitat Manipulation in Southern Exclosure	M, B	M, B	N	N	L	N	L	L	N	N	L	N	N
CA-15 Listed Plant Management – Propagation and Outplanting	L	N	L	L	L	L	L, B	L, B	L	L	L	N	L
CA-16 Habitat Restoration Program – CalVTP	N	N	L	L	L	N	L	L	L	L	L	L	L
CA-28 Cable Fence Maintenance – Replacement	L	N	N	N	N	N	L	L	N	N	L	N	N
CA-38 Grover Beach Lodge and Conference Center	L	N	L	N	N	N	L	L	N	L	L	N	N
CA-41 Pismo Creek Estuary Seasonal (Floating) Bridge	L	L	L	L	L	L, B	N	N	N	L	L	N	N
CA-42 Limited Trail Riding	N	L	N	N	L	N	M	M	L	L	L	N	N
CA-43 Replacement of the Safety and Education Center	L	L	N	N	N	N	L	L	L	L	L	N	N
CA-44 Dust Control Activities – New Dust Control Activities[1]	M	M	L, B	L, B	L, B	N	L, B	L, B	L	L	L	N	L, B
CA-48 Oso Flaco Lake Boardwalk Replacement	N	L	M	M	M	N	N	N	N	L	L	L	N
CA-49 Special Projects	M	M	L	L	L	N	L	L	L	L	L	L	L
Other CDPR Projects													
Park Corporation Yard Improvements (trailer pads, charging station, and circulation)	N	N	L	L	L	N	N	N	N	L	L	L	N
Oceano Campground Water and Electrical Service Improvements	N	N	L	L	L	N	L	L	N	L	L	L	N
Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers	N	N	N	N	N	N	N	L	L	L	L	L	N
New North Beach Entrance Station	N	N	L	L	L	N	L	L	N	L	L	L	N
Le Sage Drive Bridge Replacement	N	N	L	L	L	N	N	N	N	N	N	L	N
Local Agencies													
Dana Reserve Specific Plan Mixed-use development on 288 acres	N	N	L	L	N	N	L	L	L	L	L	L	L
Phillips 66 Santa Maria Refinery Demolition and Remediation, Removal of 15,000 cubic yards of soil and debris mounds	N	N	N	L	N	N	L	L	L	L	L	L	L
Monarch Specific Plan Mixed-use development on 957 acres	N	N	N	N	N	N	N	L	N	L	L	N	L
Interim Sandbar Management Plan	L	L	L	L	L	M	N	N	L	L	L	N	N
Arroyo Grande Creek Channel WMP (sediment and vegetation removal)	N	N	M	M	N	M	L	N	N	L	L	L, B	N

[1] Anticipated new dust control activities include supplemental planting in 48-acre foredune, new backdune planting areas, installing new Pier Avenue track-out control, and preservation of foredune vegetation in Southern Exclosure. Other similar activities could be planned in the future.

[2] Nesting birds include both common and special-status nesting bird species.

Table 6-13 Cumulative Risk of Impacts to Special-Status Plant Species

Covered Activity	Red sand verbena	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas' spineflower	**Surf thistle**[1]	**La Graciosa thistle**[1]	Paniculate tarplant	Dune larkspur	**Beach spectaclepod**[1]	Blochman's leafy daisy	Suffrutescent wallflower	Kellog's horkelia	Southwestern spiny rush	Blushing layia	Fuzzy prickly phlox	**Nipomo Mesa lupine**[1]	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	Coastal woolly-heads	South Coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's ragwort
Oceano Dunes District HCP Covered Activities – Potential Future Projects																										
CA-12b SNPL Adult Banding	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CA-12b Habitat Manipulation in Southern Exclosure	L	L	L	N	N	L	N	N	N	L	L	L	N	N	N	N	N	L	L	N	L	N	L	N	N	L
CA-15 Listed Plant Management – Propagation and Outplanting	N	N	N	N	N	L, B	L, B	N	N	L, B	N	N	N	N	N	N	L, B	N	N	N	N	N	N	N	N	N
CA-16 Habitat Restoration Program – CalVTP	L	L	L	N	N	N	N	N	N	N	L	L	N	N	N	N	N	L	L	N	L	N	L	N	N	L
CA-28 Cable Fence Maintenance – Replacement	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CA-38 Grover Beach Lodge and Conference Center	N	N	N	N	N	N	L	N	L	L	L	N	N	N	N	N	L	N	N	N	N	N	N	N	N	N
CA-41 Pismo Creek Estuary Seasonal (Floating) Bridge	L	N	N	N	N	N	N	N	N	N	L	L	N	L	N	N	N	L	L	N	N	N	L	L	N	L
CA-42 Limited Trail Riding	L	L	L	L	N	N	L	N	N	N	L	L	N	L	N	N	N	L	L	N	L	L	L	L	N	L
CA-43 Replacement of the Safety and Education Center	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CA-44 Dust Control Activities – New Dust Control Activities[1]	N	L, B	L, B	L, B	L, B	N	L, B	N	L, B	N	L, B	L, B	L, B	L, B	N	L, B	N	L, B	L, B	L, B	L, B	L, B	L, B	L, B	N	L, B
CA-48 Oso Flaco Lake Boardwalk Replacement	N	N	N	N	N	N	L	N	N	N	N	N	N	L	N	N	N	N	N	N	N	N	L	N	N	N
CA-49 Special Projects	L	L	L	L	L	L	L	N	L	L	L	L	L	L	N	L	N	L	L	L	L	L	L	L	N	L
Other CDPR Projects																										
Park Corporation Yard Improvements (trailer pads, charging station, and circulation)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 6-13 Cumulative Risk of Impacts to Special-Status Plant Species

Covered Activity	Red sand verbena	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas' spineflower	**Surf thistle**[1]	**La Graciosa thistle**[1]	Paniculate tarplant	Dune larkspur	**Beach spectacle pod**[1]	Blochman's leafy daisy	Suffrutescent wallflower	Kellog's horkelia	Southwestern spiny rush	Blushing layia	Fuzzy prickly phlox	**Nipomo Mesa lupine**[1]	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	Coastal woolly-heads	South Coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's ragwort
Oceano Campground Water and Electrical Service Improvements	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Grand Avenue and Pier Avenue Entrance Station Upgrades and Lifeguard Towers	L	L	L	N	N	N	N	N	N	N	N	L	N	L	N	N	N	L	N	N	L	N	N	L	N	L
New North Beach Entrance Station	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Le Sage Drive Bridge Replacement	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Local Agencies																										
Dana Reserve Specific Plan Mixed-use development on 288 acres	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	N	N	N	M	N
Phillips 66 Santa Maria Refinery Demolition and Remediation, Removal of 15,000 cubic yards of soil and debris mounds	N	L	N	N	N	N	N	N	L	N	L	N	N	N	N	N	L	N	N	N	L	N	N	N	L	L
Monarch Specific Plan Mixed-use development on 957 acres	N	N	N	N	N	N	N	N	N	N	N	N	L	N	N	N	N	N	N	N	N	N	N	N	N	N
Interim Sandbar Management Plan	L	N	N	N	N	L	L	N	N	L	L	L	N	L	N	N	N	L	L	N	N	N	N	N	N	L
Arroyo Grande Creek Channel WMP (sediment and vegetation removal)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

[1] Species listed in bold are covered in the HCP.

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6.4.1.1 Western Snowy Plover

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding. Currently, adult SNPL are not banded in the HCP area; however, CDPR may request permission from the USFWS to band adults at a later date. Banding adults could pose risk of injury or mortality to adults. In addition, banding could substantially disturb nesting SNPL and ultimately cause them to abandon their eggs or chicks. To reduce these impacts, CDPR would implement established protocols during banding in accordance with the SNPL and CLTE management program. Specifically, appointed staff that have obtained the appropriate state and federal permits would conduct banding activities. In addition, monitors and appointed permitted banders would be required to have a 10(a)(1)(A) Recovery Permit and/or be approved by the USFWS and follow careful protocols designed to minimize any adverse effects on SNPL during these activities. Furthermore, monitors that enter the exclosure would be aware of the location of nests, brood, and adults in order to minimize situations where an adult might abandon eggs or chicks. Ultimately, banding SNPL adults would provide beneficial information on adult mortality/survival, as well as population status and distribution. As a result, the impact would be less than significant.

SNPL/CLTE Management (CA-12b) – Habitat Manipulation in Southern Exclosure. Observations in the HCP area indicate that once a foredune system creates significant topographic relief and dense vegetation, it is less productive for nesting SNPL and CLTE (CDPR 2023). Since the temporary year-round closure of the Southern Exclosure in 2021, vegetation and topography have expanded and grown over time in parts of the Exclosure, causing reduced open habitat favored by nesting SNPL and CLTE. CDPR anticipates needing to remove during the non-breeding season the non-native sea rocket and larger dune hummocks in heavily vegetated areas where suitable nesting habitat has declined in the Southern Exclosure. This type of habitat enhancement would involve the use of heavy equipment in areas that are seasonally used for nesting and that may provide non-breeding season roosting habitat. Impacts to SNPL would be avoided through the use of AMMs including conducting all habitat manipulation activities outside the breeding season. Even with the use of AMMs, the potential remains for heavy equipment to crush individuals, disrupt roosting birds, or otherwise disturb non-breeding adults or juveniles. However, the overall purpose of the habitat manipulation is to improve nesting habitat for SNPL in the Southern Exclosure, and the overall impact would be beneficial.

Listed Plant Management (CA-15) – Propagation and Outplanting. Seed collection for propagation would not be done within areas occupied by breeding SNPL, and any planting would be done outside the breeding season. As a result, no mortality or injury of SNPL is expected to occur, and this activity would not impact nesting SNPL. However, outplanting of these species could temporarily disturb roosting or foraging SNPL. CDPR staff would implement AMMs, including, but not limited to, SNPL AMMs 95 –100 to minimize any impacts to SNPL. As a result, any disturbance-related impacts would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP would occur in SNPL tertiary habitat where SNPL rarely occur. Therefore, CalVTP would have no impact on SNPL.

Cable Fence Maintenance – Replacement (CA-28). Replacement of the cable fence would occur during the non-breeding season. Cable fence replacement could be disruptive to wintering SNPL by interrupting foraging and/or roosting behavior. In addition, the noise associated with removing posts, excavating sand, and pile driving could displace foraging and/or roosting wintering SNPL, as well as cause increased vigilance. Cable fence replacement would occur

infrequently (i.e., every 10–15 years) and would be subject to pre-construction SNPL surveys. To further reduce the impacts associated with cable fence replacement, CDPR would continue to implement the SNPL and CLTE management program in the HCP area, which includes conducting a training for all general maintenance staff on SNPL and observing the park regulations and rules to protect SNPL. Therefore, any disturbance-related impacts to wintering SNPL from cable fence replacement would be less than significant.

Grover Beach Lodge and Conference Center (CA-38). Impacts to SNPL were analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). Central dune scrub habitat in the Grover Beach Lodge project area was determined to have potential to support wintering SNPL, and impacts could occur during construction. Pre-construction surveys were required to be conducted between October and February, and activities were not permitted within 500 feet of any wintering SNPL observed during the surveys. As a result, impact on wintering SNPL from the Grover Beach Lodge would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). Since the implementation of SNPL monitoring in 1992, only two SNPL nests have been detected near the Pismo Creek Estuary (in 2009 and 2025); therefore, bridge installation is unlikely to affect nesting SNPL. Although SNPL rarely nest in this area, bridge installation and removal would need to follow AMMs, including pre-installation surveys and 100-foot minimum buffers from active nests to ensure effects on nesting SNPL are minimal. The buffer will be increased (e.g., by adding a bumpout), as necessary, until monitors observe that SNPL chicks and adults are no longer disturbed. The bridge may be temporarily closed to public use if the buffers are proving ineffective. Non-breeding SNPL could occur in the vicinity of the bridge project area and could be disturbed by bridge installation and removal if foraging and/or roosting behavior is interrupted. To reduce this impact, CDPR would continue to implement the SNPL and CLTE management program during the non-breeding season and conduct surveys prior to project activities to ensure effects on foraging and roosting SNPL would be minimal. Therefore, effects from the installation and removal of the floating bridge are anticipated to be less than significant.

Limited Trail Riding (CA-42). The Limited Trail Riding area would not be located within SNPL nesting, foraging, or roosting habitat. As a result, no impact would occur.

Replacement of the Safety and Education Center (CA-43). If the safety and education center is replaced during the non-breeding season, the project would not affect SNPL nests or chicks. If the work is conducted during the breeding season, most SNPL nest inside the Exclosures, which are south of the safety and education center. As a result, the nests within the Exclosures are not anticipated to be impacted by replacement of the safety and education center. Although SNPL sometimes nest outside the protection of the Exclosures, the safety and education center is located in the open riding area north of Post 5 near the Pavilion Hill island, which is not in an area where SNPL typically nest, but nests are found in the nearby 48-acre foredune area. The safety and education center is also located in primary habitat for SNPL, and they could nest in this location in the future. Therefore, replacement of this facility could result in destruction or disturbance of a SNPL nest or brood that is in the open riding area and has not yet been discovered by monitors. To reduce the potential to impact a SNPL nest in the open riding area, CDPR would continue to implement the SNPL and CLTE management program in the HCP area. Therefore, monitors would continue to conduct daily searches for nests in potential nesting habitat that is outside the Exclosures. Any nests found in the open riding area would be quickly protected with symbolic or wire fencing and a large single-nest exclosure, as appropriate, and a 100-foot buffer would be implemented around the nest. The buffer would be increased, as

necessary, until monitors observe that SNPL chicks and adults are no longer disturbed. Nests found in the 48-acre foredune and near the safety and education center would also be provided a 100-foot buffer with additional fencing (i.e., bumpout), as necessary, to ensure activities do not disturb nesting SNPL. Therefore, impacts to SNPL nests or chicks from replacement of the safety and education center would be less than significant.

Foraging and/or roosting SNPL could be disturbed by the safety and education center replacement activities and/or struck by a vehicle working within occupied foraging or roosting habitat during both the breeding and non-breeding season. To minimize the potential for these impacts to occur, CDPR would continue to implement the SNPL and CLTE management program, which includes conducting a training for all CDPR staff on SNPL and observing the park regulations and rules to protect SNPL. As determined necessary by an experienced monitor, surveys for SNPL would be conducted prior to conducting work, and activities would be modified as needed to minimize disturbance. Workers traveling along the shoreline and within primary SNPL habitat are also trained how to drive within areas where SNPL could forage or roost and instructed to keep speeds at or below 15 mph in the riding area and scan ahead of the vehicle for SNPL. As a result, effects from safety and education center replacement activities on foraging and roosting SNPL would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. Most new dust control activities including new backdune planting areas and installing new Pier Avenue track-out control would occur in the backdunes in tertiary habitat for SNPL or outside of SNPL habitat (Pier Avenue track-out control). New dust control activities in backdune areas would have no impact on SNPL. CDPR does not currently propose planting supplemental vegetation within the 48-acre foredune, but such planting could occur during the HCP term; therefore, the potential impacts of this activity are described below. Additionally, temporary or permanent preservation of vegetation in the Southern Exclosure for dust control could affect the quality of SNPL primary, secondary, and critical habitat and is also further discussed.

Supplemental foredune planting would only occur within the 48-acre foredune and would not occur in the Exclosures where SNPL typically nest. The 48-acre foredune, outside the Exclosures but within SNPL primary habitat, was fenced and closed to the public in January 2020 for air quality restoration. The area was treated with experimental planting methods in February 2020 and has developed moderate amounts of plant cover, low topography, and areas of scattered straw, which is suitable habitat for nesting SNPL. SNPL have established nests throughout the area each year since the 2020 breeding season. Nesting may decrease over time as vegetation becomes more established, but SNPL are expected to continue to nest in more open areas within and adjacent to the foredune vegetation. Given the need to plant vegetation during the rainy season, any supplemental planting is expected to occur prior to March 1 before the start of the SNPL breeding season or after the season concludes in September. Therefore, supplemental planting in foredune vegetation planting areas would have no direct impact on nesting SNPL. Similarly, fencing, which may comprise symbolic fencing, installed to preserve foredune vegetation in the Southern Exclosure would be installed outside of the breeding season and would not directly impact nesting SNPL (see habitat impacts, below).

Supplemental planting in existing foredune vegetation planting areas or installing and maintaining fencing to preserve Southern Exclosure foredune vegetation could disturb foraging and/or roosting wintering SNPL by displacing them from suitable foraging and/or roosting habitat during the disturbance and or deterring them from foraging and/or roosting during the disturbance. As determined necessary by an experienced monitor, CDPR would conduct pre-

construction surveys for SNPL prior to starting work and modify or delay activities as needed to minimize disturbance. As a result, potential impacts to wintering SNPL from these activities are expected to be minimized. Depending on the configuration of closures to preserve Southern Exclosure vegetation, e.g., multiple closure areas interspersed with recreation corridors or one large closure area, motorized and non-motorized recreation activities could be more or less likely to conflict with movement of SNPL. Any such effect is not known at this time.

SNPL Critical Habitat: Supplemental planting in the foredune could increase the density of vegetation in the existing 48-acre vegetated foredune. Temporary or permanent preservation of some areas of foredune vegetation in the Southern Exclosure could also increase the density of vegetation and facilitate formation of steeper hummocks. Both of these activities could thus decrease the suitability of these areas for nesting and wintering SNPL, degrading primary SNPL habitat and designated critical habitat. Previous studies have found that SNPL select habitats that are open (or wide) and have less vegetative cover in order to facilitate early detection of predators and reduce predation risk (Muir and Colwell 2010, Brindock and Colwell 2011). Reducing the quality of SNPL habitat by planting additional vegetation in the 48-acre foredune or allowing denser vegetation to develop in the Southern Exclosure could lead to less open (or wide), sparsely vegetated beach and steeper hummocks, reducing nesting initiation and success and potentially increasing predation on adults, chicks, and/or eggs if SNPL are not able to detect predators moving towards the nest location. Although the 48-acre foredune is not part of the Exclosures, the Southern Exclosure is erected and managed specifically for SNPL and CLTE breeding. CDPR would implement all AMMs (HCP Table 5-2), as appropriate, to reduce impacts from dust control activities, including managing habitat in the Southern Exclosure to ensure it retains the necessary physical and biological characteristics of primary habitat as defined in HCP section 3.3.1.8 and indicated by breeding productivity. In addition, CDPR implements a predator management program to control avian and/or mammalian predators that are observed targeting or disturbing SNPL adults, chicks, or eggs. Overall, supplemental planting in the 48 acres of critical habitat would only further modify approximately 6.2 percent of the total critical habitat in the HCP area, approximately 2.9 percent of total critical habitat in Unit CA 31, and approximately 0.02 percent of the total critical habitat range-wide. Therefore, impacts to SNPL critical habitat from supplemental planting in the foredune vegetation planting areas and preserving some vegetation in the Southern Exclosure while ensuring it retains the necessary physical and biological characteristics of primary habitat are expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). Oso Flaco boardwalk replacement would occur over Oso Flaco Lake and would not occur within SNPL nesting, foraging, or roosting habitat. As a result, no impact would occur. Impacts from maintenance of the portion of Oso Flaco boardwalk in upland habitat are described in Boardwalk/Other Pedestrian Maintenance (CA-31) in EIR Appendix D.

Special Projects (CA-49). Though the actual location of special projects is not yet known, the HCP anticipates that special projects could directly affect up to 35 acres of 4,154 acres of available SNPL habitat over the permit term, although less than 950 acres are within primary and/or secondary habitat (i.e., 698 acres in primary habitat and 250 acres in secondary habitat) where SNPL may nest. Special projects within tertiary habitat are not expected to affect SNPL since SNPL rarely occur within tertiary habitat. Special projects in primary and secondary habitat would be conducted outside the SNPL breeding season, to the extent feasible. If special projects in primary and secondary habitat are conducted in the breeding season, they would not be conducted within the Exclosures where the majority of SNPL nest; therefore, SNPL nesting would not be affected by special projects.

Although most SNPL nest within the Exclosures, SNPL also occasionally nest outside the protection of the Exclosures, including in the open riding area, vegetation islands, 48-acre foredune area, and near Arroyo Grande Creek. Construction activities and vehicles associated with special project construction could crush eggs, chicks, or adults or disturb SNPL chicks or adults in an active SNPL nest that is in the riding area and not yet identified by monitors. To reduce impacts to SNPL nests that could occur in the riding area, CDPR would continue to implement the SNPL and CLTE management program. Therefore, monitors would continue to conduct daily searches for nests in potential nesting habitat that is outside the Exclosures. In addition, any nests found in the open riding area are quickly protected with symbolic or wire fencing and a large single-nest exclosure, as appropriate, thus reducing the likelihood of construction activities destroying or disturbing a nest. Furthermore, prior to constructing a special project that could impact SNPL even with AMM implementation, CDPR will notify USFWS of the proposed project, including providing a description of the project, potential impacts, and AMMs. USFWS may request additional information or an opportunity to confer with CDPR on AMMs. USFWS and CDPR may mutually agree on new or modified AMMs or project modifications to further the effectiveness of the conservation program (see HCP section 6.4.2). As a result, special projects would have a less than significant impact on nesting SNPL. Foraging and/or roosting SNPL may be disturbed during special project activities because roosting and/or foraging activities could be interrupted. However, 3,130 acres of the 4,154 acres of SNPL habitat where special projects could occur are located in tertiary habitat where SNPL are not expected to forage and/or roost. Special project activities in primary and secondary habitat are expected to be infrequent and of short duration, and the same USFWS notification process would be followed. As a result, special projects would have a less-than-significant impact on foraging and/or roosting SNPL.

Placing special projects within SNPL primary and secondary breeding habitat would reduce the amount of habitat available to SNPL for breeding by precluding them from nesting within the footprint of the structures. However, many special projects would not be placed within primary and/or secondary habitat. In addition, special projects would be small (i.e., not to exceed 35 acres over the permit term), they would be placed in areas where SNPL do not typically nest (e.g., outside the Exclosures), and the USFWS notification process would be followed when applicable. Therefore, special projects would have a less-than-significant impact on SNPL habitat.

Increased SNPL Take from HCP Potential Future Activities

SNPL take numbers quantified in the HCP include incidental take from existing, proposed new, and potential future covered activities and include mortality, injury, capture, abandonment, and eggs or chicks in the open riding area at risk of take such as being struck by a vehicle. The estimated take summarized in HCP Table 4-3 and in Table 6-6 above includes:

- Take of individual SNPL adults, juveniles, chicks, and eggs caused by park operations, recreation, and other activities not related to covered species management.
- Take of SNPL caused by striking fences (e.g., exclosure fencing, single nest exclosures) installed to protect nests and individuals from public activity. Impacts from all other management activities related to monitoring and protecting SNPL (recovery activities) are discussed in HCP Appendix C and will be authorized under the 10(a)(1)(A), Recovery Permit (TE-815214-10).

As stated in EIR section 6.3.2.1, most of the take numbers for SNPL reflect worst-case conditions based on past observations of mortality and injury, as well as observations of events that could cause mortality or injury, such as chicks entering the open riding area or nests being abandoned after an adult has been observed being disturbed by recreation. Although the worst-case scenario of take has been observed or is thought to have occurred in the past, this level of take is not expected to occur within the HCP area in most years (if at all). Take for most years is lower than the worst-case scenario for take as documented in the monitoring data collected by CDPR since 2002.

Of the 12 future HCP covered activities, including SNPL adult banding (CA-12b), habitat manipulation in southern exclosure (CA-12b), listed plant management – propagation and outplanting (CA-15), habitat restoration program – CalVTP (CA-16), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Beach estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center (CA-43), dust control activities – new dust control activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49), only SNPL adult banding (CA-12b) could potentially result in take beyond baseline conditions. Specifically, SNPL adult banding (CA-12b), which would be authorized under a 10(a)(1)(A) Recovery Permit, could result in additional temporary capture of SNPL adults and/or juveniles. Additional injuries and/or mortalities from SNPL adult banding are not expected with the implementation of AMMs. Any take would be temporary and last only during the time adults are being banded. As a result, no loss of SNPL adults, juveniles, eggs, or chicks would occur from SNPL adult banding (CA-12b). Therefore, the SNPL take impact associated with the future covered activities is less than significant.

Other CDPR Projects

Other CDPR projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, New North Beach Entrance Station, and Le Sage Drive Bridge Replacement) would occur outside of SNPL primary and secondary habitat and would have no impact on breeding or wintering SNPL or SNPL critical habitat.

Local Agencies

Dana Reserve Specific Plan. There is no suitable habitat for or known occurrences of SNPL in the Dana Reserve Specific Plan area or off-site improvement area. Therefore, no impacts on SNPL would occur.

Phillips 66 Santa Maria Refinery Demolition and Remediation. There is no suitable nesting or foraging habitat for or known occurrences of SNPL in the Phillips 66 Santa Maria Refinery project area. Therefore, no impacts on SNPL would occur.

Monarch Dunes Specific Plan. There is no suitable habitat for or known occurrences of SNPL in the Monarch Dunes Specific Plan area or off-site improvement area. Therefore, no impacts on SNPL would occur.

Interim Sandbar Management Plan. The Interim Sandbar Management Plan activities occur in Arroyo Grande Lagoon and Meadow Creek Lagoon, an area where SNPL have rarely nested in the past. The project area is over 2 miles north of the SNPL nesting exclosures and over 1 mile north of the 48-acre foredune (the closest area where SNPL regularly nest as of 2025). In addition, Plan activities would usually occur in the rainy season outside of the SNPL nesting season. The Plan also includes a pre-activity survey for nesting birds, including SNPL, and

avoidance measures in coordination with CDPR if any nests are found. The resulting impact on SNPL would be minimal.

Arroyo Grande Creek Channel Waterway Management Plan. SNPL's potential to occur was evaluated as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). It was determined that suitable SNPL habitat is not present within the project area. No impact from this activity would occur.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, the impact on SNPL from potential future projects is not expected to be significant. Given the implementation of AMMs, the proposed new activities do not contribute to cumulatively significant impacts on SNPL, even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. Cumulative project impacts on SNPL would ***be less than significant***.

6.4.1.2 California Least Tern

HCP Potential Future Covered Activities

SNPL and CLTE Management – SNPL Adult Banding (CA-12b). Adult CLTE would not be banded in the HCP area. As a result, no direct impacts would occur. SNPL adult banding would occur within the seasonal exclosure. Since the majority of CLTE nest within the exclosure, CLTE could be flushed from the nest or chicks could be separated from adults. However, SNPL adult banding activities would be conducted by a USFWS-approved or 10(a)(1)(A) permitted biologist that would implement appropriate CLTE AMMs to ensure any disturbance to CLTE is minimized. As a result, this impact would be less than significant.

SNPL/CLTE Management (CA-12b) – Habitat Manipulation in Southern Exclosure. Habitat enhancement has been implemented each year in the HCP area as part of the ongoing SNPL and CLTE management program, and its overall impacts are beneficial. More intensive habitat manipulation necessary to address areas where nesting habitat has declined in the Southern Exclosure would only be conducted once CLTE are not on site and would thus not negatively affect CLTE; the overall impacts would be beneficial as nesting habitat would be improved.

Listed Plant Management (CA-15) – Propagation and Outplanting. Most listed plants do not occur in areas where CLTE would nest, forage, or roost. Seed collection for propagation would not be completed within areas occupied by breeding CLTE, and any planting would be done outside the breeding season. Therefore, listed plant propagation and outplanting is expected to have no impact on CLTE.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP would occur in CLTE tertiary habitat where CLTE rarely occur. Therefore, CalVTP would have no impact on CLTE.

Cable Fence Maintenance (CA-28) – Replacement. Cable fence replacement would not occur within CLTE breeding season. As a result, no impact from this activity would occur.

Grover Beach Lodge and Conference Center (CA-38). CLTE's potential to occur was evaluated as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). It was determined that suitable CLTE habitat is not present within the project area. As a result, no impact from this activity would occur.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The bridge is located outside of CLTE breeding habitat and would have no impact on nesting CLTE. CLTE could use the Pismo Creek bridge handrails for roosting, including after chicks have fledged and adults are teaching fledglings to fish; therefore, installation, use, and removal of the bridge could disturb roosting CLTE. To reduce impacts on foraging and/or roosting CLTE, CDPR would continue to implement the SNPL and CLTE management program. Therefore, surveys would be conducted prior to bridge installation and removal to ensure that CLTE are not present in the area. If CLTE are observed, bridge installation or removal activities would be modified or delayed as determined necessary by an experienced monitor. In addition, CDPR has established an AMM specific to the future bridge location that requires the bridge to be closed to public use if visitor activities are observed to be substantially disrupting CLTE foraging or roosting behavior at the bridge location. Therefore, effects from the installation and use of the floating bridge are anticipated to be less than significant.

Limited Trail Riding (CA-42). The limited trail riding area would be located mostly outside the Southern Exclosure, with only a small portion in East Boneyard, and within tertiary CLTE breeding and roosting habitat. No CLTE foraging habitat is present. Therefore, impacts to nesting, roosting, and foraging CLTE are not expected. CLTE have been observed flying over the limited trail riding area to reach suitable lake foraging habitat nearby. At times, CLTE have been observed flying as low as 15 feet above ground. At this height, although unlikely, they could be struck by a vehicle travelling through the 40 Acres area. Although the potential for vehicle strike is low, it does exist. However, CLTE AMMs would be implemented, as appropriate, to reduce this impact. As a result, this impact would be less than significant.

Replacement of the Safety and Education Center (CA-43). Almost all CLTE nest inside the Southern Exclosure, which is south of the safety and education center. As a result, the nests within the Southern Exclosure are not anticipated to be impacted by the replacement of the safety and education center.

Although CLTE almost exclusively nest within the Southern Exclosure, CLTE have infrequently nested outside the protection of the exclosure. The safety and education center is located north of Post 5 near the Pavilion Hill vegetation island, which is within primary habitat for CLTE. Therefore, replacement of this facility could result in destruction or disturbance of a CLTE nest or chicks in the open riding area and not yet discovered by monitors. To reduce the potential to impact a CLTE nest outside the Southern Exclosure, CDPR would continue to implement the SNPL and CLTE management program in the HCP area. Therefore, monitors would continue to conduct daily searches for nests in potential nesting habitat that is outside the Southern Exclosure. Any nests found in the open riding area would be quickly protected by a large single-nest exclosure As a result, impacts to CLTE nests or chicks outside the Southern Exclosure from replacement of the safety and education center would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities in the back dunes including new backdune planting areas and installing new Pier Avenue track-out control would be in tertiary habitat for CLTE or outside of CLTE habitat (Pier Avenue track-out control). Therefore, new dust control activities in the back dunes would have no impact on CLTE. CDPR does not currently propose planting supplemental vegetation within the 48-acre foredune, but such planting could occur during the HCP term; therefore, the potential impacts of this activity are described below. Additionally, temporary or permanent preservation of vegetation in the Southern Exclosure for dust control could affect the quality of CLTE primary or secondary habitat and is also further discussed.

The 48-acre foredune, in which CDPR installed experimental planting treatments in February 2020, is located outside the Southern Exclosure area but within CLTE primary habitat. CLTE almost exclusively nest in the Southern Exclosure and have not nested in the foredune areas. The 48-acre foredune area has also not been used by CLTE for a night roost. Any supplemental planting in the foredune is expected to be installed during the rainy season, which concludes prior to CLTE arriving onsite for breeding. Supplemental planting activities would also not be conducted within aquatic habitat. Similarly, fencing installed to preserve foredune vegetation in the Southern Exclosure would be installed outside of the breeding season. As a result, supplemental planting in foredune planting areas and fencing to preserve Southern Exclosure foredune vegetation would not disturb and thus would have no direct impact on nesting, roosting, and foraging CLTE.

Although CLTE has not nested in the 48-acre foredune, the area is within CLTE primary habitat, and the vegetation planted in 2020 has made the 48-acre foredune area less suitable for CLTE nesting. Supplemental planting in the foredune could exacerbate this impact by making the area even less suitable as CLTE nesting habitat. However, the area was not used by CLTE for nesting or roosting even prior to closure and planting, likely due to heavy recreation use. Additionally, the 48-acre foredune is not part of the Southern Exclosure. As CLTE almost exclusively nest in the Southern Exclosure, and the 48-acre foredune is a relatively small part of CLTE primary habitat, the effect of the reduced nesting habitat quality on CLTE is expected to be minimal.

Temporary or permanent preservation of some areas of foredune vegetation in the Southern Exclosure, however, could also increase the density of vegetation and facilitate formation of steeper hummocks. The Southern Exclosure is specifically managed for SNPL and CLTE breeding and is the only portion of the HCP area used by nesting CLTE. CDPR will implement all AMMs, as appropriate, to reduce impacts associated with dust control, including managing habitat in the Southern Exclosure to ensure it retains the necessary physical and biological characteristics of primary habitat as defined in HCP section 3.3.2.8 and indicated by breeding productivity. With these measures, impacts are expected to be minimized.

Vegetation planted or preserved for dust control in primary CLTE habitat may impact breeding CLTE by providing habitat for mammalian predators to hide and stalk nesting and/or roosting CLTE or may attract avian predators to hunt vegetated areas closer to CLTE breeding areas. This is an existing potential impact from the 48-acre foredune that could be exacerbated by supplemental planting in the foredune and vegetation preservation in the Southern Exclosure. The wire fence surrounding the 48-acre foredune does not keep coyotes or other predators out of the area, but the predator fencing around the Southern Exclosure is generally effective at protecting the area from terrestrial predators. At this time, the extent of these indirect impacts from dust control activities is not known. CDPR would implement all CLTE AMMs, as appropriate, to reduce impacts from dust control activities. These measures would include continuing CDPR's predator management program, which has been successful at controlling predators that are observed targeting or disturbing CLTE adults, chicks, or eggs. The predator management program has likely increased reproductive success for CLTE and is expected to alleviate impacts associated with additional vegetation being planted or preserved within CLTE primary or secondary habitat. As a result, this impact is expected to be minimized.

<u>Oso Flaco Lake Boardwalk Replacement (CA-48).</u>

Oso Flaco Lake is not CLTE nesting habitat; therefore, the Oso Flaco Lake boardwalk replacement would have no impact on nesting CLTE. CLTE could use the Oso Flaco Lake boardwalk handrails for roosting, including after chicks have fledged and adults are teaching

fledglings to fish. Oso Flaco Lake has also been used by CLTE for foraging for fish in past years but has been rarely used in recent years. Therefore, Oso Flaco Lake boardwalk replacement could disturb foraging and/or roosting CLTE if work is conducted when CLTE are likely to be present in the HCP area (generally April 15 to September 15). To reduce impacts to foraging and/or roosting CLTE at Oso Flaco Lake, trained CLTE monitors would conduct surveys prior to any boardwalk construction to assess whether CLTE are present in the area, and if so, whether CLTE may be disturbed. If so, the monitor would delay construction activities within 250 feet of the CLTE until it leaves of its own accord. Additionally, the Oso Flaco boardwalk is a long structure that would be replaced in sections, leaving many sections of the boardwalk and surrounding lake undisturbed at any given time. Given the surveys for CLTE, establishment of a buffer if needed, and the remaining undisturbed aquatic habitat, impacts of replacing the boardwalk on CLTE would be less than significant. Impacts from maintenance of the portion of Oso Flaco boardwalk in upland habitat are described in Boardwalk/Other Pedestrian Maintenance (CA-31) in EIR Appendix D.

Special Projects (CA-49). Special projects entail the construction of new facilities that may occur in Pismo State Beach or in Oceano Dunes SVRA. Though the actual location of the special projects is not yet known, the HCP anticipates that special projects could directly affect up to 35 acres of 4,154 acres of available CLTE habitat over the permit term, although less than 950 acres are within primary and/or secondary habitat (i.e., 698 acres in primary habitat and 250 acres in secondary habitat) where CLTE may potentially nest. Special projects within tertiary habitat are not expected to affect CLTE since CLTE rarely, if ever, occur within tertiary habitat. Specials projects in primary and secondary habitat would be conducted outside of the CLTE breeding season to the extent feasible. If special projects in primary and secondary habitat are conducted during the breeding season, they would not be conducted within the Southern Exclosure; therefore, nesting CLTE are not expected to be affected by special projects since CLTE almost exclusively nest within the Southern Exclosure.

Should a CLTE pair nest outside the Southern Exclosure, construction activities and vehicles associated with special project construction could crush eggs, chicks, or adults or disturb CLTE chicks or adults in an active CLTE nest that is in the open riding area and not yet identified by monitors. To reduce impacts to SNPL nests that could occur outside the Southern Exclosure, CDPR would continue to implement the SNPL and CLTE management program. Therefore, monitors would continue to conduct daily searches for nests in potential nesting habitat that is outside the Southern Exclosure, and any nests found in the open riding area would be quickly protected with symbolic or wire fencing, and a large single-nest exclosure would be installed as soon as possible, thus reducing the likelihood of construction activities destructing or disturbing a nest. Furthermore, prior to constructing a special project that could impact CLTE even with AMM implementation, CDPR will notify USFWS of the proposed project, including providing a description of the project, potential impacts, and AMMs. USFWS may request additional information or an opportunity to confer with CDPR on AMMs. USFWS and CDPR may mutually agree on new or modified AMMs or project modifications to further the effectiveness of the conservation program (see HCP section 6.4.2). As a result, potential impacts to nesting CLTE from special projects are expected to be less than significant.

Foraging CLTE are not expected to be affected by special projects, since special projects would not occur within aquatic habitat. Roosting CLTE may be disturbed during special project activities because roosting activities could be interrupted. However, 3,130 acres of the 4,154 acres where special projects could occur are located in tertiary habitat, where CLTE are not expected to roost. Special project activities are expected to be infrequent and short duration in

CLTE primary and secondary habitat and would not occur in areas where CLTE typically roost (i.e., the Southern Exclosure, fenced bumpout areas), and the same USFWS notification process would be followed. As a result, potential impacts to foraging and roosting CLTE from special projects are expected to be less than significant.

The placement of special projects within CLTE primary and secondary breeding habitat reduces the amount of habitat available to CLTE for breeding by precluding them from nesting within the footprint of the structures. However, special projects would rarely be placed within primary and/or secondary habitat. In addition, special projects would be small (i.e., not to exceed 35 acres over the permit term), they would be placed in areas where CLTE do not typically nest (i.e., outside the Southern Exclosure), and the USFWS notification process would be followed when applicable. Therefore, potential impacts to CLTE habitat from special projects would be less than significant.

Increased CLTE Take from HCP Potential Future Activities

CLTE take numbers quantified in the HCP include incidental take from existing, proposed new, and potential future covered activities and include mortality, injury, capture, abandonment, and eggs or chicks in the open riding area at risk or being struck by a vehicle. The estimated take summarized in HCP Table 4-5 and in Table 6-7 above includes:

- Take of individual CLTE adults, juveniles, chicks, and eggs caused by park operations, recreation, and other activities not related to covered species management.
- Take of CLTE caused by striking fences (e.g., exclosure fencing, single nest exclosures) installed to protect nests and individuals from public activity. Impacts from all other management activities related to monitoring and protecting CLTE (recovery activities) are discussed in HCP Appendix C and will be authorized under the 10(a)(1)(A) Recovery Permit (TE-815214-10).

As stated in EIR Section 6.3.2.2, the take numbers presented in this HCP account for worst-case past observations of mortality and injury that have been observed only rarely during the timeframe from 2002 to 2023 and do not happen most years. Oceano Dunes District will continue to manage for breeding CLTE targets. The estimates recognize that not every egg or individual CLTE may be detected. These data have resulted from long-term, intensive monitoring within the HCP area. It is estimated that a similar level of future take will occur if CDPR maintains a similar set of conditions for the CLTE population within the HCP area in the future (Table 6-7).

The 12 future covered activities, including SNPL adult banding (CA-12b), habitat manipulation in southern exclosure (CA-12b), CalVTP (CA-16), listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Beach estuary seasonal (floating) bridge (CA-41), limited trail riding area (CA-42), replacement of the safety and education center (CA-43), dust control activities – new dust control activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49), would not contribute CLTE take numbers above baseline conditions. As a result, future covered activities would have no impact on CLTE take.

Other CDPR Projects

Other CDPR projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, New North Beach Entrance Station, and Le Sage Drive Bridge

Replacement) would occur outside of CLTE primary and secondary habitat and would have no impact on breeding or foraging CLTE or on CLTE habitat.

Local Agencies

Dana Reserve Specific Plan. There is no suitable habitat for or known occurrences of CLTE in the Dana Reserve Specific Plan area or off-site improvement area. Therefore, no impact on CLTE would occur.

Phillips 66 Santa Maria Refinery Demolition and Remediation. There is no suitable nesting or foraging habitat for or known occurrences of CLTE in the Phillips 66 Santa Maria Refinery project area. Therefore, no impacts on CLTE would occur.

Monarch Dunes Specific Plan. There is no suitable habitat for or known occurrences of CLTE in the Monarch Dunes Specific Plan area or off-site improvement area. Therefore, no impact on CLTE would occur.

Interim Sandbar Management Plan. The Interim Sandbar Management Plan activities occur in Arroyo Grande Lagoon and Meadow Creek Lagoon, an area where CLTE have rarely nested in the past. The project area is over two miles north of the CLTE nesting exclosures where CLTE almost exclusively nests. In addition, Plan activities would usually occur in the rainy season outside of the CLTE nesting season. The Plan also includes a pre-activity survey for nesting birds, including CLTE, and avoidance measures in coordination with CDPR if any nests are found. The resulting impact on CLTE would be minimal.

Arroyo Grande Creek Channel Waterway Management Plan. CLTE's potential to occur was evaluated as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). It was determined that suitable CLTE habitat is not present within the project area. As a result, no impact from this activity would occur.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, the impact on CLTE from potential future projects is not expected to be significant. Given the implementation of AMMs, the proposed new activities do not contribute to cumulatively significant impacts on CLTE, even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. Cumulative project impacts on CLTE would be ***less than significant***.

6.4.1.3 Southwestern Pond Turtle

HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b) and SNPL/CLTE Management (CA-12b) – Habitat Manipulation in Southern Exclosure. SNPL adult banding and habitat manipulation in the Southern Exclosure would have no impact on SWPT or its habitat.

Listed Plant Management (CA-15) – Propagation and Outplanting. Potential impacts to SWPT from listed plant propagation and outplanting would be similar to other ongoing listed plant management activities and would be less than significant. Only activities associated with marsh sandwort and/or Gambel's watercress are considered to have potential to impact SWPT. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort and Gambel's watercress in the HCP area to date are not known to have impacted SWPT. Any future monitoring, propagation, and habitat enhancement activities for marsh sandwort and Gambel's

watercress at Oso Flaco Lake has the potential to temporarily impact all life stages of SWPT (i.e., eggs, juveniles, and adults). Activities could result in injury or mortality if a SWPT or nest is present within the work area. In addition, activities could disturb SWPT located near the work area and cause stress or cause them to move from cover where they may be exposed to predation. To minimize impacts to SWPT associated with these activities, depending on the type of activities (e.g., ground disturbance), surveys for SWPT would be conducted within 100 feet of any propagation and habitat enhancement activities in Oso Flaco Lake to ensure no SWPT are present. If a SWPT is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or could proceed once they determine the activities could continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, mortality, injury, and disturbance to SWPT would be minimized.

Activities within aquatic habitats affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment stirred up during activities would be minimal, localized, and temporary. As a result, listed plant propagation and outplanting would not affect SWPT or their habitat in the long term.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP would occur in SWPT dispersal habitat (within 500 feet of suitable aquatic habitat, see Figure 6-3). CalVTP activities would likely benefit SWPT overall by removing invasive species from SWPT dispersal habitat. Habitat restoration conducted in the HCP area to date is not known to have impacted SWPT. CalVTP restoration activities could result in injury or mortality if a SWPT is present within the work disturbance area. Restoration could directly affect all SWPT life stages (i.e., eggs, hatchlings, juveniles, and adults), including by grading, ground disturbance with hand tools, vegetation removal and installation, and maintenance activities. In addition, CalVTP activities could disturb SWPT located near the work area and cause them to move from cover where they may be exposed to predation. To minimize these possible impacts, depending on the type of activities (e.g., ground disturbance), surveys for SWPT would be conducted, as needed, to ensure no SWPT are present. If a SWPT is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities could continue with minimal risk to the safety of the SWPT, which could include implementing additional AMMs such as exclusion fencing or biological monitoring. As a result, potential impacts to SWPT from CalVTP activities would be less than significant.

Cable Fence Maintenance (CA-28) – Replacement. This activity would not occur within SWPT aquatic habitat and SWPT are not expected to disperse through this area. As a result, no impact would occur.

Grover Beach Lodge and Conference Center (CA-38). According to the Grover Beach Conference Center Biological Assessment (Althouse and Meade, Inc. 2005, amended 2009) and the Revised Final EIR (SWCA Environmental Consultants 2012), construction of the Grover Beach Lodge is not anticipated to affect habitats that support SWPT. The Final EIR for the Grover Beach Lodge construction project states that the project would avoid direct impacts to the aquatic portions and riparian vegetation of Meadow Creek and would ultimately likely improve water quality in the creek by enhancing runoff filtration capabilities on the site. As a result, no direct impacts to SWPT are expected from the Grover Beach Lodge, and SWPT are expected to benefit from water quality improvements in the creek. Potential impacts from the Grover Beach Lodge and Conference Center on SWPT would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The proposed floating bridge at Pismo Creek Lagoon has a small potential to impact SWPT, particularly at the northern access point. However, to date, SWPT are only known from areas farther upstream of the CDPR-owned portions of Pismo Creek (i.e., outside the HCP area). Furthermore, the Pismo Creek Lagoon is considered low quality suitable habitat for SWPT due to the intrusion of saltwater. Therefore, there is low potential for SWPT to be present in the area where the floating bridge would be installed. As a result, impacts associated with the floating bridge are unlikely.

Construction activities within Pismo Creek could affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution would be taken not to stir up sediment and any sediment stirred up during activities would be minimal, localized, and temporary and would not affect SWPT habitat upstream of the project area. Potential impacts to SWPT from the Pismo Creek Estuary seasonal (floating) bridge would be less than significant.

Limited Trail Riding (CA-42) and Replacement of the Safety and Education Center (CA-43). These activities would not occur within SWPT aquatic habitat and SWPT are unlikely to disperse through this area. As a result, no impact would occur.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities would not occur in SWPT aquatic habitat but could include planting vegetation in upland SWPT habitat or preserving vegetation within the Southern Exclosure. This habitat would vary in its suitability for SWPT dispersal since it could occur within upland habitat anywhere within backdunes, the existing 48-acre foredune, or the Southern Exclosure. Impacts to SWPT were not observed during previous dust control activities. Individuals in a dust control work area could be injured or crushed. However, additional dispersal habitat would continue to be available in the HCP area outside the dust control areas. CDPR would implement AMMs for SWPT, as appropriate, including conducting pre-activity surveys as necessary and postponing activities until appropriate AMMs are implemented (e.g., relocation, exclusion fencing, biological monitoring) or a qualified biologist/Natural Resource staff determines the activities can continue with minimal risk of harm. As a result, impacts on aestivating or dispersing SWPT are expected to be very minimal. In addition, vegetation planted or preserved for dust control activities provides necessary cover for SWPT if they are dispersing through the area and would benefit SWPT. Potential impacts to SWPT from future dust control activities are thus expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk may eventually need to be replaced with a comparable boardwalk in roughly the same location. Most of the boardwalk is within upland habitat, but approximately 1,000 feet of the existing Oso Flaco Lake boardwalk occurs within aquatic habitat. The boardwalk also includes two resting areas/viewing platforms within aquatic habitat. The layout and/or location of the new boardwalk might need to shift slightly to accommodate conditions at the time of replacement such as changes in codes or other operational or design considerations. Thus, although it is anticipated the replacement boardwalk would be located in roughly the same location, the HCP includes the loss of up to 1.5 acres of SWPT habitat. Depending on the type of repair, existing piles may need to be removed and new piles may be installed. Replacing the entire boardwalk would cause temporary disturbance of SWPT aquatic habitat including substantial, but temporary, turbidity and could include pile driving and a boat or floating platform to ferry supplies. Although Oso Flaco Lake is large enough that SWPT could move away from the area during construction, gravid females are highly sensitive to disturbance and could abandon nests prior to completing egg laying. Pre-activity surveys would be conducted prior to commencing any activities

disturbing suitable SWPT habitat to minimize effects of these activities on SWPT. If a SWPT is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determined the activities could continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, avoiding pile driving during late afternoon and evening hours, and/or biological monitoring. The timing and methodology of pile removal and installation would be optimized as feasible to minimize risk to overwintering and breeding adults and avoid nests and hatchlings. As a result, impacts from Oso Flaco Lake boardwalk replacement to SWPT would be less than significant.

As noted, this activity has the potential to stir up sediment and cause turbidity in the lake. It is not known how much turbidity could impact resident SWPT. A project of this scale would trigger various permits from regulatory agencies including the USACE and the RWQCB. CDPR would follow the requirements of those permits and implement any AMMs needed to reduce the impacts from sediment from pile removal and replacement on aquatic organisms in Oso Flaco Lake, including SWPT.

Special Projects (CA-49). Special projects covered by the HCP would not be located in aquatic habitat. Projects could be located in upland dispersal habitat. Construction of a special project could result mortality or injury of a dispersing adult/sub-adult/juvenile if they dispersed through the construction area. Pre-activity surveys would be conducted prior to commencing activities that could disturb SWPT dispersal habitat. Therefore, this impact on SWPT would be less than significant.

Special projects could remove up to 35 acres of dispersal habitat, but this habitat impact would be less than significant since suitable dispersal habitat would still be present throughout the HCP area.

Increased SWPT Take from HCP Potential Future Activities

Take numbers identified in the HCP include take for existing, proposed, and future covered activities (Table 6-8). As stated in EIR section 6.3.2.3, the take numbers for SWPT reflect worst-case conditions based on past observations of events that could cause mortality or injury. The HCP is not requesting authorization for additional take of SWPT from future covered activities including SNPL adult banding (CA-12b), habitat manipulation in Southern Exclosure (CA-12b), listed plant management – propagation and outplanting (CA-15), CalVTP (CA-16), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Beach Estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center (CA-43), dust control activities – new dust control activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49), beyond baseline conditions.

The HCP is requesting an additional 1.5 acres of SWPT aquatic habitat loss from Oso Flaco Lake boardwalk replacement (CA-48), 3 acres of upland habitat for dust control monitoring devices (CA-44), and 35 acres of upland habitat for special projects (CA-49) (Table 6-14). The temporary habitat disruption listed in Table 6-14 is from existing ongoing activities. The loss of aquatic and upland habitat within the HCP area would be relatively small compared to the available habitat area and thus would be less than significant.

Table 6-14. Summary of Estimated Loss of Southwestern Pond Turtle Habitat		
Habitat Type	**Annual estimated *temporary* habitat disruption**	**Total estimated *permanent* loss of habitat**
Pond turtle aquatic habitat	3.0 acres riparian, wetland, and open water	1.5 acres – Oso Flaco boardwalk replacement
Pond turtle upland habitat	0	3 acres – dust control monitoring devices 35 acres – special projects

Other CDPR Projects

The Grand Avenue and Pier Avenue Entrance Station Upgrades and Lifeguard Towers would occur outside of SWPT aquatic and upland habitat and would have no impact on SWPT. The Park Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, New North Beach Entrance Station, and Le Sage Drive Bridge Replacement are located on or adjacent to Meadow Creek, Carpenter Creek, and Oceano Lagoon. SWPT have been observed in Oceano Lagoon and near Carpenter Creek, and Meadow Creek also provides suitable aquatic habitat. The bridge replacement at Le Sage Drive could cause mortality, injury, or disturbance to SWPT during project construction if it is present in the work area. There is low potential for SWPT to occur in the work area and with implementation of AMMs, the potential impact would be less than significant. The Le Sage Drive Bridge Replacement would also comply with any agency permit requirements, if applicable. Improvements at the Park Corporation Yard, Oceano Campground, and North Beach Entrance could result in mortality or injury of dispersing adult and juvenile turtles. However, with implementation of SWPT AMMs 1–65, as applicable, these impacts would be reduced to less than significant. CDPR would also seek an amendment to the HCP if SWPT take coverage is needed for these projects.

Local Agencies

Dana Reserve Specific Plan. Although there is no suitable habitat or known occurrences of SWPT in the Dana Reserve Specific Plan area, off-site improvements that are part of the Specific Plan project would occur in suitable habitat for SWPT (Nipomo Creek and its tributaries). If SWPT is present during construction activities, the project could result in direct and indirect impacts to SWPT. Implementation of mitigation measures in the Specific Plan EIR would ensure that potential construction impacts to SWPT, if present when construction activities commence, would be less than significant (SWCA Environmental Consultants 2022). The project would not result in long-term operational impacts to this species.

Phillips 66 Santa Maria Refinery Demolition and Remediation. There is no suitable aquatic habitat for or known occurrences of SWPT in the Phillips 66 Santa Maria Refinery project area; freshwater habitat with basking structures is absent. Therefore, no impact on SWPT would occur.

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to Central Coastal Scrub, eucalyptus stands, monarch butterfly, silvery legless lizard, loggerhead shrike, American badgers, and nesting raptors (SWCA Environmental Consultants 2022). Impacts to SWPT are not mentioned; therefore, it is assumed that SWPT would not be impacted by this project. Although there are existing golf course ponds in the Specific Plan area, the Monarch Dunes Specific Plan Land Use Concept Plan shows that the existing ponds would not be developed and would remain after the

Specific Plan is fully implemented (San Luis Obispo County 2023). In addition, there are no CNDDB records of SWPT in or adjacent to the Specific Plan area (CDFW 2025).

Interim Sandbar Management Plan. Arroyo Grande Lagoon and Meadow Creek provide suitable aquatic habitat for SWPT, and SWPT has been recorded there in the past. The Interim Sandbar Management Plan could include breaching the lagoon to prevent flooding upstream, which could result in impacts to SWPT adults or juveniles from the rapid dewatering of Arroyo Grande Lagoon and Meadow Creek.[37] The Plan includes a pre-activity survey and worker environmental training to minimize impacts on special-status species. However, proposed new covered activities would not impact Arroyo Grande Lagoon and lower Meadow Creek or contribute to this potentially significant impact on SWPT.

Arroyo Grande Creek Channel Waterway Management Plan. Impacts to SWPT were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). SWPT is known to inhabit Arroyo Grande Creek Channel, and project activities were determined to have the potential to directly or indirectly impact SWPT. Pre-construction surveys and relocation, if necessary, were required prior to dewatering associated with the project. In addition, permanent habitat loss was required to be mitigated through development of a Mitigation and Monitoring Plan.

Conclusion

As described above, with the exception of the Interim Sandbar Management Plan, none of the future projects is expected to have a significant impact on SWPT, although some potential future projects may be subject to additional environmental review. The Interim Sandbar Management Plan could adversely impact SWPT due to rapid dewatering of Arroyo Grande Lagoon and Meadow Creek. However, the proposed new activities would not impact Arroyo Grande Lagoon and lower Meadow Creek or contribute to this potentially significant impact on SWPT when combined with the Interim Sandbar Management Plan. Given the implementation of AMMs, impacts on SWPT from the proposed new activities do not contribute to cumulatively significant impacts on SWPT, even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on SWPT. Cumulative project impacts on SWPT would be ***less than significant***.

6.4.1.4 California Red-Legged Frog

HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b) and SNPL/CLTE Management (CA-12b) – Habitat Manipulation in Southern Exclosure. SNPL adult banding and habitat manipulation in the Southern Exclosure would have no impact on CRLF or its habitat.

Listed Plant Management – Propagation and Outplanting (CA-15). Potential impacts to CRLF from listed plant propagation and outplanting would be similar to other ongoing listed plant management activities and would be ***less than significant***. Only activities associated with marsh

[37] Water naturally backs up behind the Arroyo Grande Creek sandbar, and CDPR does not facilitate or propose mechanical or other artificial breaching of the sandbar, which can pose a risk to special-status species. Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

sandwort and/or Gambel's watercress are considered to have potential to impact CRLF. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort and Gambel's watercress in the HCP area to date are not known to have impacted CRLF. Any propagation or outplanting of marsh sandwort and Gambel's watercress at Oso Flaco Lake could temporarily affect all life stages of CRLF (i.e., eggs, tadpoles, juveniles, and adults) by disturbing CRLF, if present. Activities can result in injury or mortality if a CRLF is present within the work area. In addition, activities can disturb CRLF located near the work area and cause stress or cause them to move from cover where they may be exposed to predation. To minimize impacts to CRLF associated with these activities, depending on the type of activities (e.g., ground disturbance), surveys for CRLF are conducted within 100 feet of any propagation and habitat enhancement activities in Oso Flaco Lake to ensure no CRLF are present. If a CRLF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determine the activities can continue with minimal risk to the safety of the CRLF, which may include implementing appropriate AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, mortality, injury, and disturbance to CRLF would continue to be minimized.

Activities within aquatic habitats affect CRLF by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment stirred up during activities would be minimal, localized, and temporary. As a result, listed plant propagation and outplanting would not affect CRLF or their habitat in the long term.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP would occur in CRLF upland habitat (Figure 3-1and Figure 6-4), including invasive species removal, habitat restoration, and fuels management. CalVTP activities would likely benefit CRLF overall by removing invasive species from CRLF dispersal habitat. Habitat restoration conducted in the HCP area to date is not known to have impacted CRLF. CalVTP restoration activities could result in injury or mortality if a CRLF is present within the work disturbance area. Restoration could directly affect dispersing or aestivating adult or juvenile CRLF including by ground disturbance with hand tools, vegetation removal and installation, and maintenance activities. In addition, CalVTP activities could disturb CRLF located near the work area and cause them to move from cover where they may be exposed to predation. To minimize these possible impacts, depending on the type of activities (e.g., ground disturbance), surveys for CRLF would be conducted, as needed, to ensure no CRLF are present. If a CRLF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities could continue with minimal risk to the safety of the CRLF, which could include implementing additional AMMs such as exclusion fencing or biological monitoring. As a result, potential impacts to CRLF from CalVTP activities would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). This activity would not occur within CRLF aquatic habitat and CRLF are not expected to disperse through this area. As a result, no impact would occur.

Grover Beach Lodge and Conference Center (CA-38). Impacts to CRLF were analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). According to the EIR, construction of the Grover Beach Lodge would not impact CRLF. As a result, no impact on CRLF would occur from the Grover Beach Lodge.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The floating bridge would be installed in aquatic habitat. CRLF are not known to occur in Pismo Creek within the HCP area, and the Pismo Creek Estuary is considered low-quality suitable habitat for CRLF due to the intrusion of

saltwater. Therefore, there is low potential for CRLF to be present in the area where the floating bridge would be installed. Construction activities within Pismo Creek could affect CRLF by temporarily stirring up sediment and increasing turbidity. However, caution would be taken not to stir up sediment and any sediment stirred up during activities would be minimal, localized, and temporary and would not affect CRLF habitat upstream of the project area. As a result, this activity is unlikely to impact CRLF and would have a less-than-significant impact.

Limited Trail Riding (CA-42); Replacement of the Safety and Education Center (CA-43). These activities would not occur within CRLF aquatic habitat and CRLF are unlikely to disperse through these areas. As a result, no impact would occur.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities would not occur in CRLF aquatic habitat but could include planting vegetation in upland CRLF habitat or preserving vegetation within the Southern Exclosure. This habitat would vary in its suitability for CRLF dispersal since it could occur within upland habitat anywhere within the backdunes, the existing 48-acre foredune, or the Southern Exclosure. Impacts to CRLF were not observed during previous dust control activities. It is unlikely, but possible, that CRLF would disperse through or be found in open sand areas prior to vegetation being installed. Individuals in a dust control work area could be injured or crushed. However, the numbers and distribution of CRLF found in the HCP area have been relatively limited, and additional dispersal habitat would continue to be available in the HCP area outside the dust control areas. CDPR would implement AMMs for CRLF, as appropriate, including conducting pre-activity surveys as necessary and delaying activities until the individual moves from the work area or appropriate AMMs are in place (e.g., relocation, exclusion fencing, biological monitoring). As a result, impacts to aestivating or dispersing CRLF are expected to be minimal. In addition, vegetation planted or preserved for dust control activities provides necessary cover for CRLF if they are dispersing through the area and would benefit CRLF. Potential impacts to CRLF from dust control activities are thus expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk may eventually need to be replaced with a comparable boardwalk in roughly the same location. Most of the boardwalk is within upland habitat, but approximately 1,000 feet of the existing Oso Flaco Lake boardwalk occurs within aquatic habitat. The boardwalk also includes two resting areas/viewing platforms within aquatic habitat. The layout and/or location of the new boardwalk might need to shift slightly to accommodate conditions at the time of replacement, such as changes in codes or other operational or design considerations. Thus, although it is anticipated the replacement boardwalk would be located in roughly the same location, the HCP includes the loss of up to 1.5 acres of CRLF aquatic habitat. Depending on the type of repair, existing piles may need to be removed and new piles may be installed. Replacing the boardwalk would also cause temporary disturbance of CRLF aquatic habitat including substantial, but temporary, turbidity and could include pile driving and a boat or floating platform to ferry supplies; however, pre-activity surveys by a qualified biologist/Natural Resource staff would be conducted prior to commencing any activities disturbing suitable CRLF habitat to minimize effects of these activities on CRLF. If a CRLF is observed, activities would continue to be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determine the activities can continue with minimal risk to the safety of the CRLF, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, impacts from Oso Flaco Lake boardwalk replacement would be less than significant.

As noted, this activity has the potential to stir up sediment and cause turbidity in the lake. It is not known how much turbidity could impact resident CRLF. A project of this scale would trigger various permits from regulatory agencies including the USACE and the RWQCB. CDPR would follow the requirements of those permits and implement any AMMs needed to reduce the impacts from sediment from pile removal and replacement on aquatic organisms in Oso Flaco Lake, including CRLF.

Special Projects (CA-49). Special projects covered by the HCP would not be located in aquatic habitat. Projects could be located in upland dispersal habitat. Construction of a special project could result mortality or injury of a dispersing adult/sub-adult/juvenile if they dispersed through the construction area. Pre-activity surveys would be conducted prior to commencing activities that could disturb CRLF dispersal habitat. Therefore, this impact on CRLF would be less than significant.

Special projects could remove up to 35 acres of dispersal habitat, but this habitat impact would be less than significant since suitable dispersal habitat would still be present throughout the HCP area.

Increased CRLF Take from HCP Potential Future Activities

Take numbers identified in the HCP include take from existing, proposed new, and future covered activities (Table 6-9). As stated in EIR section 6.3.2.4, the take numbers for CRLF reflect worst-case conditions based on past observations of events that could cause mortality or injury.

The HCP is not requesting authorization for additional take of CRLF from future covered activities including SNPL adult banding (CA-12b), habitat manipulation in Southern Exclosure (CA-12b), listed plant management – propagation and outplanting (CA-15), CalVTP (CA-16), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Beach Estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center (CA-43), dust control activities – new dust control activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49), beyond baseline conditions.

The HCP is requesting an additional 1.5 acres of CRLF aquatic habitat loss from Oso Flaco Lake boardwalk replacement (CA-48), 3 acres of upland habitat for dust control monitoring devices (CA-44), and 35 acres of upland habitat for special projects (CA-49) (Table 6-15). The temporary habitat disruption listed in Table Table 6-15 is from existing ongoing activities. The loss of aquatic and upland habitat within the HCP area would be relatively small compared to the available habitat area and thus would be less than significant.

Table 6-15. Summary of Estimated Loss of CRLF Habitat

Habitat Type	Annual estimated *temporary* habitat disruption	Total estimated *permanent* loss of habitat
CRLF aquatic habitat	3.0 acres riparian, wetland, and open water	1.5 acres – Oso Flaco boardwalk replacement

Table 6-15. Summary of Estimated Loss of CRLF Habitat

Habitat Type	Annual estimated *temporary* habitat disruption	Total estimated *permanent* loss of habitat
CRLF upland habitat	0	3 acres[1] – dust control monitoring devices 35 acres – special projects

Notes:
[1]Although the location of some meteorological monitoring stations may not be permanent, the HCP assumes that up to 3 acres of dispersal habitat could be occupied by monitoring stations at any given time. Vegetation planting associated with dust control activities is not considered a permanent loss of habitat since CRLF can use this habitat for cover and dispersal.

Other CDPR Projects

The Grand Avenue and Pier Avenue Entrance Station Upgrades and Lifeguard Towers would occur outside of CRLF aquatic and upland habitat and would have no impact on CRLF. The Park Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, New North Beach Entrance Station, and Le Sage Drive Bridge Replacement are located adjacent to Meadow Creek, Carpenter Creek, and Oceano Lagoon. CRLF have been observed in Oceano Lagoon and Meadow Creek. In addition, in 2019, a tadpole observed in Carpenter Creek is presumed to have been a CRLF based upon its characteristics. The bridge replacement at Le Sage Drive could cause mortality, injury, or disturbance to CRLF during project construction if it is present in the work area. There is low potential for CRLF to occur in the work area and with implementation of AMMs, the potential impact would be less than significant. The Le Sage Drive Bridge Replacement would also comply with any agency permit requirements, if applicable. Improvements at the Park Corporation Yard, Oceano Campground, or North Beach Entrance could result in mortality or injury of dispersing adult and juvenile CRLF. However, with implementation HCP CRLF AMMs 1–66, as applicable, these impacts would be reduced to less than significant. CDPR would also seek an amendment to the HCP if CRLF take coverage is needed for these projects.

Local Agencies

Dana Reserve Specific Plan. Although there is no suitable habitat or known occurrences of CRLF in the Dana Reserve Specific Plan area, off-site improvements that are part of the Specific Plan project would occur in suitable habitat for CRLF (Nipomo Creek and its tributaries). If CRLF is present during construction activities, the project could result in direct and indirect impacts to CRLF. Implementation of mitigation measures in the Specific Plan EIR would ensure that potential construction impacts to CRLF, if present when construction activities commence, would be less than significant (SWCA Environmental Consultants 2022). The project would not result in long-term operational impacts to this species.

Phillips 66 Santa Maria Refinery Demolition and Remediation. Two ponds in the Phillips 66 Santa Maria Refinery project area provide marginally suitable nonbreeding aquatic habitat for CRLF. The presence of the drainage systems in the project area has provided a consistent source of water, which may potentially attract CRLF, particularly during the dry season. Given the proximity of CNDDB records 0.4 miles west of the project area in a dune swale pond and 0.4 miles south in Oso Flaco Creek, CRLF could disperse into these artificial water features. If CRLF are present, as the water dries out CRLF could potentially be displaced. Adult CRLF dispersing from the drying water storage areas could be crushed or entombed during demolition

and remediation activities. If tadpoles are successfully able to metamorphose prior to the water storage area drying, recently metamorphosed CRLF could also be crushed or entombed during demolition and remediation activities when dispersing away from the drying area. Mitigation measure BIO.6-1 was included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that CRLF would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to Central Coastal Scrub, eucalyptus stands, monarch butterfly, silvery legless lizard, loggerhead shrike, American badgers, and nesting raptors (SWCA Environmental Consultants 2022). Impacts to CRLF are not mentioned; therefore, it is assumed that CRLF would not be impacted by this project. Although there are existing golf course ponds in the Specific Plan area, the Monarch Dunes Specific Plan Land Use Concept Plan shows that the existing ponds would not be developed and would remain after the Specific Plan is fully implemented (San Luis Obispo County 2023). In addition, there are no CNDDB records of CRLF in or adjacent to the Specific Plan area (CDFW 2025).

Interim Sandbar Management Plan. Arroyo Grande Lagoon and Meadow Creek provide suitable aquatic habitat for CRLF, and CRLF has been recorded there in the past. The Interim Sandbar Management Plan, which could result in breaching the lagoon to prevent flooding upstream, includes a pre-activity survey and worker environmental training to minimize impacts on special-status species. Although sandbar management activities would be infrequent and short in duration, the Plan could result in impacts on CRLF eggs, tadpoles, and/or breeding adults from the rapid dewatering of Arroyo Grande lagoon and Meadow Creek.[38] However, proposed new covered activities would not impact Arroyo Grande Lagoon and lower Meadow Creek or contribute to this potentially significant impact on CRLF.

Arroyo Grande Creek Channel Waterway Management Plan. Impacts to CRLF were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). The Arroyo Grande Creek Channel WMP project area is considered suitable habitat for CRLF and project activities were determined to have the potential to directly or indirectly impact CRLF. Pre-construction surveys and relocation, if necessary, were required prior to dewatering associated with the project. In addition, permanent habitat loss was required to be mitigated through development of a Mitigation and Monitoring Plan.

Conclusion

As described above, with the exception of the Interim Sandbar Management Plan, none of the future projects is expected to have a significant impact on CRLF, although some potential future projects may be subject to additional environmental review. The Interim Sandbar Management Plan could adversely impact CRLF due to rapid dewatering of Arroyo Grande Lagoon and Meadow Creek. However, the proposed new covered activities would not impact Arroyo Grande Lagoon and lower Meadow Creek or contribute to this potentially significant impact on CRLF. Given the implementation of AMMs, impacts on CRLF from the proposed new activities do not contribute to cumulatively significant impacts on CRLF, even when combined with related

[38]CDPR does not facilitate or propose mechanical or other artificial breaching of the sandbar, which can pose a risk to listed species. Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on CRLF. Cumulative project impacts on CRLF would be ***less than significant***.

6.4.1.5 Western Spadefoot

HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b). SNPL adult banding would have no impact on WSF.

SNPL/CLTE Management (CA-12b) – Habitat Manipulation in Southern Exclosure. Any activity to address foredune development in the seasonal exclosure would involve heavy equipment to remove vegetation and topography in relatively small locations between 0.25 and 5 acres in size. This heavy equipment use and grading could cause vibrations or noise that could impact dispersing or aestivating WSF. Heavy equipment could crush aestivating individuals, or vibration from heavy equipment could force individuals out of aestivation, causing them to expend energy and making them vulnerable to predators or exposure to elements. As more focused monitoring occurs and more information about WSF status and distribution in the covered lands becomes available, CDPR may develop focused AMMs to address the impacts from heavy equipment activity in areas where WSF could be dispersing or aestivating. Potential impacts on WSF are expected to be less than significant.

Listed Plant Management – Propagation and Outplanting (CA-15). Potential impacts to WSF from listed plant propagation and outplanting would be similar to other ongoing listed plant management activities and would be ***less than significant***. Activities associated with marsh sandwort, Gambel's watercress, and/or La Graciosa thistle are considered to have potential to impact WSF. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort, Gambel's watercress, and La Graciosa thistle in the HCP area are unknown to have impacted WSF. Any future monitoring, propagation, and habitat enhancement activities for marsh sandwort and Gambel's watercress at Oso Flaco Lake and La Graciosa thistle in aquatic habitats has the potential to temporarily impact all life stages of WSF (i.e., eggs, tadpoles, juveniles, and adults). Activities could result in injury or mortality if a WSF is present within the work area. In addition, activities could disturb WSF located near the work area and cause stress or cause them to move from cover where they may be exposed to predation. To avoid and minimize impacts to WSF, ground disturbing activities in known or likely WSF habitat would be timed to avoid sensitive life stages including breeding and aestivation periods. As determined by a qualified biologist/Natural Resource staff, pre-activity surveys will be conducted where activities may pose a higher risk due to timing, location, or intensity of activity. If any WSF are found, activities will be adjusted or postponed until the qualified staff relocates the individual(s) out of harm's way or until they determine the project can proceed with minimal risk to the safety of the WSF. They may also employ protective fencing, rescheduling work times or locations, or other AMM measures where appropriate. As a result, the risk of mortality, injury, and disturbance to WSF would be less than significant**.**

Activities within aquatic habitats affect WSF by temporarily stirring up sediment and increasing turbidity. However, any time a work activity needs to be conducted on the bed, banks, or channel of an aquatic habitat with the potential to support WSF, appropriate steps will be taken to minimize turbidity from activities. If possible, activities will be conducted from outside the wetted area or from stream banks or other upland areas. If activity is necessary in wetted areas, work will be limited to the minimum necessary to achieve desired outcome and care will be

taken to reduce turbidity, especially during critical periods like when egg clusters are present or tadpoles are present in the water. As a result, this impact would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP would occur in WSF upland habitat (Figure 3-1and Figure 6-5). CalVTP activities would likely benefit WSF overall by removing invasive species from WSF dispersal habitat. Habitat restoration conducted in the HCP area to date is not known to have impacted WSF. CalVTP restoration activities could result in injury or mortality if a WSF is present within the work disturbance area. Restoration could directly affect WSF juveniles and adults, including by mechanical vegetation removal, ground disturbance with hand tools, vegetation installation, and maintenance activities. In addition, CalVTP activities could disturb WSF located near the work area and cause them to move from cover where they may be exposed to predation. To minimize these possible impacts, depending on the type of activities (e.g., ground disturbance), surveys for WSF would be conducted, as needed, to ensure no WSF are present. If a WSF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities could continue with minimal risk to the safety of the WSF, which could include implementing additional AMMs such as exclusion fencing or biological monitoring. As a result, potential impacts to WSF from CalVTP activities would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). This activity would not occur within WSF aquatic habitat, and WSF are not expected to disperse through this area. As a result, no impact would occur.

Grover Beach Lodge and Conference Center (CA-38). Impacts to WSF were analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). According to the EIR, construction of the Grover Beach Lodge would not impact WSF. As a result, no impact on WSF would occur from the Grover Beach Lodge.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The proposed floating bridge at Pismo Creek Lagoon has a small potential to impact WSF, particularly at the northern access point, but the Pismo Creek Lagoon is considered low quality suitable habitat for WSF due to the intrusion of saltwater. Therefore, there is low potential for WSF to be present in the area where the floating bridge would be installed. As a result, impacts associated with the floating bridge would be very minimal. Construction activities within Pismo Creek could affect WSF by temporarily stirring up sediment and increasing turbidity. However, caution would be taken not to stir up sediment and any sediment stirred up during activities would be minimal, localized, and temporary and would not affect WSF habitat upstream of the project area. Potential impacts to WSF from the Pismo Creek Estuary seasonal floating bridge would be less than significant.

Limited Trail Riding (CA-42): The limited trail riding area is within potential upland WSF dispersal or burrow habitat. Given how few WSF have been found in the HCP area, it is unlikely, but possible, that WSF disperse through or occur in the trail area and could be injured or crushed during construction or subsequent maintenance and trail use. However, few WSF have been found in the HCP area, and trail construction, maintenance, and use are unlikely to occur when WSF are active on the surface (i.e., in wet weather primarily at night). Construction and maintenance could disturb, injure, or kill a WSF in its burrow, and dormant WSF are sensitive to noise, which can cause them to break dormancy and emerge at the wrong time, increasing the risk of desiccation or other harm. CDPR would implement AMMs for WSF, as appropriate, including conducting pre-activity surveys as necessary and postponing activities until the qualified biologist/Natural Resource staff determines the activities can continue with minimal risk to the safety of the WSF, which may include implementing AMMs (e.g., relocation,

exclusion fencing, biological monitoring). As more focused monitoring occurs and more information about WSF status and distribution in the covered lands becomes available, CDPR may develop focused AMMs to address the impacts from heavy equipment activity in areas where WSF could be dispersing or aestivating. As a result, impacts to dormant or dispersing WSF are expected to be less than significant.

Replacement of the Safety and Education Center (CA-43). This activity would not occur within WSF aquatic habitat, and WSF are unlikely to disperse through this area. As a result, no impact would occur.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities would not occur in WSF aquatic habitat but could include planting vegetation in upland WSF dispersal or burrow habitat or preserving vegetation within the Southern Exclosure. This habitat would vary in its suitability for WSF since it could occur within upland habitat anywhere within the backdunes, the existing 48-acre foredune, or the Southern Exclosure. Impacts to WSF were not observed during previous dust control activities. It is unlikely, but possible, that WSF would disperse through or be found in open sand areas prior to vegetation being installed. Individuals in a dust control work area could be injured or crushed. However, few WSF have been found in the HCP area, and additional dispersal and burrow habitat would continue to be available in the HCP area outside the dust control areas. CDPR would implement AMMs for WSF, as appropriate, including conducting pre-activity surveys as necessary and delaying activities until the individual moves from the work area or appropriate AMMs are in place (e.g., relocation, exclusion fencing, biological monitoring). As a result, impacts to dormant or dispersing WSF are expected to be minimal. In addition, vegetation planted or preserved for dust control activities provides necessary cover for WSF if they are dispersing through the area and would benefit WSF. Potential impacts to WSF from future dust control activities are thus expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk may eventually need to be replaced with a comparable boardwalk in roughly the same location. Most of the boardwalk is within upland habitat, but approximately 1,000 feet of the existing Oso Flaco Lake boardwalk occurs within aquatic habitat. The boardwalk also includes two resting areas/viewing platforms within aquatic habitat. The layout and/or location of the new boardwalk might need to shift slightly to accommodate conditions at the time of replacement such as changes in codes or other operational or design considerations. Thus, although it is anticipated the replacement boardwalk would be located in roughly the same location, the HCP includes the loss of up to 1.5 acres of WSF habitat. Depending on the type of repair, existing piles may need to be removed, and new piles may be installed. Replacing the entire boardwalk would cause temporary disturbance of WSF aquatic habitat including substantial, but temporary, turbidity and could include pile driving and a boat or floating platform to ferry supplies; however, pre-activity surveys would be conducted prior to commencing any activities disturbing suitable WSF habitat to minimize effects of these activities on WSF. If a WSF is observed, activities would be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determine the activities can continue with minimal risk to the safety of the WSF, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, impacts from Oso Flaco Lake boardwalk replacement would be minimal. As a result, impacts to WSF from Oso Flaco Lake boardwalk replacement would be less than significant.

As noted, this activity has the potential to stir up sediment and cause turbidity in the lake. It is not known how much turbidity could impact resident WSF. A project of this scale would trigger

various permits from regulatory agencies including the USACE and the RWQCB. CDPR would follow the requirements of those permits and implement any AMMs needed to reduce the impacts from sediment from pile removal and replacement on aquatic organisms in Oso Flaco Lake, including WSF.

Special Projects (CA-49). No special projects would occur in aquatic habitat or near enough to aquatic habitat to have an effect on suitable aquatic habitat. Dormant WSF are sensitive to noise, which can cause them to break dormancy and emerge at the wrong time, increasing the risk of desiccation or other harm (USFWS 2023b). Although it is not expected to occur within the SVRA given the limited overlap of special projects and WSF habitat, heavy equipment generating low frequency noise and vibration operating close enough to a dormant WSF burrow could cause this effect. As more focused monitoring occurs and more information about WSF status and distribution in the covered lands becomes available, CDPR may develop focused AMMs to address the impacts from heavy equipment activity in areas where WSF could be dispersing or aestivating. Special projects could remove up to 35 acres of dispersal habitat, but this habitat impact would be less than significant since suitable dispersal habitat would still be present throughout the HCP area. Overall, potential impacts on WSF from special projects are expected to be less than significant.

Increased WSF Take from HCP Potential Future Activities

Take numbers identified in the HCP include take from existing, proposed new, and future covered activities (Table 6-11). As stated in EIR section 6.3.2.5, the take numbers for WSF reflect worst-case conditions based on mortality or injury that can go undetected in the HCP area.

The HCP is not requesting authorization for additional take of WSF from future covered activities including SNPL adult banding (CA-12b), habitat manipulation in Southern Exclosure (CA-12b), listed plant management – propagation and outplanting (CA-15), CalVTP (CA-16), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Beach Estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center (CA-43), dust control activities (CA-44), – new dust control activities, Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49), beyond baseline conditions.

The HCP is requesting an additional 1.5 acres of WSF aquatic habitat loss from Oso Flaco Lake boardwalk replacement (CA-48), 3 acres of upland habitat for dust control monitoring devices (CA-44), and 35 acres of upland habitat for special projects (CA-49) (Table 6-16). The temporary habitat disruption listed in Table 6-16 is from existing ongoing activities. The loss of aquatic and upland habitat within the HCP area would be relatively small compared to the available habitat area and thus would be less than significant.

Table 6-16. Summary of Estimated Loss of Western Spadefoot Habitat

Habitat Type	Annual estimated *temporary* habitat disruption	Total estimated *permanent* loss of habitat
Spadefoot aquatic habitat	3.0 acres riparian, wetland, and open water	1.5 acres – Oso Flaco boardwalk replacement
Spadefoot upland habitat	0	3 acres[1] – dust control monitoring devices 35 acres – special projects

Table 6-16. Summary of Estimated Loss of Western Spadefoot Habitat

Habitat Type	Annual estimated *temporary* habitat disruption	Total estimated *permanent* loss of habitat

Notes:
[1]Although the location of some meteorological monitoring stations may not be permanent, the HCP assumes that up to 3 acres of dispersal habitat could be occupied by monitoring stations at any given time. Vegetation planting associated with dust control activities is not considered a permanent loss of habitat since WSF can use this habitat for cover and dispersal.

Other CDPR Projects

The Grand Avenue and Pier Avenue Entrance Station Upgrades and Lifeguard Towers would occur outside of WSF aquatic and upland habitat and would have ***no impact*** on WSF. The Park Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, New North Beach Entrance Station, and Le Sage Drive Bridge Replacement are located adjacent to Meadow Creek, Carpenter Creek, and Oceano Lagoon. WSF has not been observed in these waterbodies, but suitable aquatic and dispersal habitat are present near the project sites. The bridge replacement at Le Sage Drive could cause mortality, injury, or disturbance to WSF during project construction if it is present in the work area. There is low potential for WSF to occur in the work area and with implementation of AMMs, the potential impact would be less than significant. The Le Sage Drive Bridge Replacement would also comply with any agency permit requirements, if applicable. Improvements at the Park Corporation Yard, Oceano Campground, or North Beach Entrance could result in mortality or injury of dispersing adult and juvenile WSF. However, with implementation of WSF AMMs 1–67, as applicable, these impacts would be reduced to less than significant. CDPR would also seek an amendment to the HCP if WSF take coverage is needed for these projects.

Local Agencies

Dana Reserve Specific Plan. There is no suitable habitat or known occurrences of WSF in the Dana Reserve Specific Plan area or off-site improvement area. Therefore, no impacts on WSF would occur.

Phillips 66 Santa Maria Refinery Demolition and Remediation. There is no suitable aquatic habitat for or known occurrences of WSF in the Phillips 66 Santa Maria Refinery project area; marginally suitable upland habitat occurs in the project area, but no breeding ponds occur on the site or adjacent to the site. The closest CNDDB occurrence is 6 miles southeast in a farm pond adjacent to the Santa Maria River. Therefore, no impacts on WSF would occur.

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to Central Coastal Scrub, eucalyptus stands, monarch butterfly, silvery legless lizard, loggerhead shrike, American badgers, and nesting raptors (SWCA Environmental Consultants 2022). Impacts to WSF are not mentioned, therefore it is assumed that WSF would not be impacted by this project. Although there are existing golf course ponds in the Specific Plan area, the Monarch Dunes Specific Plan Land Use Concept Plan shows that the existing ponds would not be developed and would remain after the Specific Plan is fully implemented (San Luis Obispo County 2023). In addition, there are no CNDDB records of WSF in or adjacent to the Specific Plan area (CDFW 2025).

Interim Sandbar Management Plan. Arroyo Grande lagoon and Meadow Creek provide suitable aquatic habitat for WSF, although WSF has not been recorded there in the past. The Interim Sandbar Management Plan, which could result in breaching the lagoon, includes a pre-activity survey and worker environmental training to minimize impacts to special-status species. Although sandbar management activities would be infrequent and short in duration, the Plan could result in impacts on WSF eggs, tadpoles, and/or breeding adults from the rapid dewatering of Arroyo Grande lagoon and Meadow Creek if they are present.[39] However, proposed new covered activities would not impact Arroyo Grande Lagoon and lower Meadow Creek or contribute to this potentially significant impact on WSF.

Arroyo Grande Creek Channel Waterway Management Plan. WSF's potential to occur was evaluated as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). It was determined that suitable WSF habitat is not present within the project area. As a result, no impact from this activity would occur.

Conclusion

As described above, with the exception of the Interim Sandbar Management Plan, none of the future projects is expected to have a significant impact on WSF, although some potential future projects may be subject to additional environmental review. The Interim Sandbar Management Plan could adversely impact WSF due to rapid dewatering of Arroyo Grande Lagoon and Meadow Creek. However, proposed new covered activities would not impact Arroyo Grande Lagoon and lower Meadow Creek or contribute to this potentially significant impact on WSF. Given the implementation of AMMs, impacts on WSF from the proposed new activities do not contribute to cumulatively significant impacts on WSF, even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on WSF. Cumulative project impacts on WSF would be ***less than significant***.

6.4.1.6 Tidewater Goby

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding and Habitat Manipulation in Southern Exclosure. These activities would not occur within tidewater goby habitat. As a result, no impact would occur.

Listed Plant Management – Propagation and Outplanting (CA-15). Listed plant propagation and outplanting would not occur in occupied tidewater goby habitat, although propagation and outplanting of marsh sandwort and Gambel's watercress could occur in unoccupied tidewater goby critical habitat. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort and Gambel's watercress in the HCP area to date are not known to have impacted tidewater goby. Caution is taken to minimize disturbance to sediment in tidewater goby critical habitat and any sediment stirred up during listed plant management activities will be minimal, localized, and temporary. As a result, potential impacts to tidewater goby or their habitat would be less than significant.

[39] CDPR does not facilitate or propose mechanical or other artificial breaching of the sandbar, which can pose a risk to listed species. Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities would not occur in tidewater goby occupied or critical habitat and would have no impact on tidewater goby.

Cable Fence Maintenance (CA-28) – Replacement and Grover Beach Lodge and Conference Center (CA-38). These activities would not occur within tidewater goby habitat. As a result, no impact would occur.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The Pismo Creek Estuary seasonal floating bridge has not been installed at this time. The bridge is expected to reduce erosion and sedimentation into the Pismo Creek Estuary by reducing the number of pedestrians walking through the mouth of the creek. Therefore, the bridge is expected to benefit tidewater goby and its habitat by reducing the effects from turbidity and the potential for tidewater goby individuals to be injured or killed. Construction, installation, and maintenance of the bridge could temporarily increase turbidity, but these activities would be short-term, and the floating bridge would benefit tidewater goby overall.

To ensure the bridge does not block tidewater goby passage when it is installed, and to allow movement of all fish species as well as an exchange of fresh and saltwater, even during low flows, the interlocking pieces of the bridge would be constructed to create wide openings under the bridge. In addition, the bridge would be removed if water levels are so low that it is not allowing the free movement of fish in the estuary. The bridge could also result in shadow or other disturbances to the surface of the water when pedestrians cross the bridge, which could cause temporary disturbances to tidewater goby. However, the bridge would cover a very small area of the estuary, and such disturbances are expected to result in only minor effects on tidewater goby or its habitat. As a result, impacts would be less than significant, and the decreased turbidity and direct impacts to individual tidewater goby would provide an overall net benefit to tidewater goby.

Limited Trail Riding (CA-42); Replacement of the Safety and Education Center (CA-43); Dust Control Activities (CA-44) – New Dust Control Activities; Oso Flaco Lake Boardwalk Replacement (CA-48); and Special Projects (CA-49). These activities would not occur within tidewater goby habitat. As a result, no impact would occur.

Increased Tidwater Goby Take from HCP Potential Future Activities

Take numbers identified in the HCP include take from existing, proposed new, and future covered activities (Table 6-12). As stated in EIR section 6.3.2.6, the take numbers for tidewater goby reflect worst-case conditions based on mortality or injury that can go undetected in the HCP area.

The HCP is not requesting authorization for additional take of tidewater goby from future covered activities including SNPL adult banding (CA-12b), habitat manipulation in Southern Exclosure (CA-12b), listed plant management – propagation and outplanting (CA-15), CalVTP (CA-16), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Beach Estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center (CA-43), dust control activities – new dust control activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49), beyond baseline conditions. In addition, the future covered activities would not cause tidewater goby habitat loss.

Other CDPR Projects

The other CDPR Projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, Le Sage Drive Bridge Replacement, and New North Beach Entrance Station) are not in tidewater goby habitat and would have no impact on tidewater goby.

Local Agencies

Dana Reserve Specific Plan. There is no suitable habitat or known occurrences of tidewater goby in the Dana Reserve Specific Plan area or off-site improvement area. Therefore, no impact on tidewater goby would occur.

Phillips 66 Santa Maria Refinery Demolition and Remediation. There is no suitable aquatic habitat for or known occurrences of tidewater goby in the Phillips 66 Santa Maria Refinery project area. Therefore, no impact on tidewater goby would occur.

Monarch Dunes Specific Plan. There is no suitable habitat or known occurrences of tidewater goby in the Monarch Dunes Specific Plan area or off-site improvement area. Therefore, no impact on tidewater goby would occur.

Interim Sandbar Management Plan. Although the Arroyo Grande Lagoon breaches naturally 1–2 times per year, proposed sandbar management activities could potentially increase the frequency or likelihood of breach events in the lagoon, which could impact tidewater goby. The Interim Sandbar Management Plan states in section 5.2.3 that the County Public Works Department should consider actions that would minimize the impacts of breach events (whether "pre-breached" or not) on tidewater goby populations in Arroyo Grande Lagoon in coordination with resource agencies (ESA | PWA 2013). The Plan notes it is possible that to develop a more permanent (permitted) sandbar management plan, resource agencies will require a formal protection/enhancement plan for tidewater goby, steelhead, and other estuarine fish.[40] Nevertheless, the rapid dewatering of Arroyo Grande lagoon from a sandbar breach could have significant adverse impacts on tidewater goby. However, proposed new covered activities would not impact Arroyo Grande lagoon or contribute to this potentially significant impact on tidewater goby.

Arroyo Grande Creek Channel Waterway Management Plan. Impacts to tidewater goby were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). Tidewater goby is known to occur in the Arroyo Grande Creek Channel downstream of Plan activities, and project activities were determined to have the potential to directly or indirectly impact tidewater goby. Mitigation measures required by the EIR included obtaining necessary permits, an environmental education session, biological monitoring, and screening pump intakes to avoid or minimize potential impacts to tidewater goby.

Conclusion

As described above, with the exception of the Interim Sandbar Management Plan, none of the future projects is expected to have a significant impact on tidewater goby, although some potential future projects may be subject to additional environmental review. The Interim Sandbar

[40]CDPR does not facilitate or propose mechanical or other artificial breaching of the sandbar, which can pose a risk to listed species. Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

Management Plan could adversely impact tidewater goby due to rapid dewatering of Arroyo Grande Lagoon. However, the proposed new covered activities would not impact Arroyo Grande Lagoon or contribute to this potentially significant impact on tidewater goby. Given the implementation of AMMs, impacts on tidewater goby from the proposed new activities do not contribute to cumulatively significant impacts on tidewater goby even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on tidewater goby. Cumulative project impacts on tidewater goby would be ***less than significant***.

6.4.1.7 Coast (California) Horned Lizard and Northern California Legless Lizard

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding. Coast horned lizards and Northern California legless lizards are not expected to occur where SNPL adults, juveniles, chicks, and eggs are present. Therefore, SNPL adult banding would have no impact on coast horned lizard and Northern California legless lizard.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. Coast horned lizards and Northern California legless lizards are not expected to occur where SNPL adults, juveniles, chicks, and eggs are present. Though unlikely, it is possible that coast horned lizard and/or Northern California legless lizard may disperse through or utilize vegetated areas in the Southern Exclosure during the nonbreeding season when habitat manipulation would occur. If present, these species could be crushed by equipment used for habitat manipulation. However, this foredune habitat is thought to be infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover. As a result, the impact of this activity on coast horned lizard or Northern California legless lizard would be less than significant.

Listed Plant Management – Propagation and Outplanting (CA-15). Propagation and outplanting activities for surf thistle, beach spectaclepod, Nipomo lupine, and La Graciosa thistle could result in injury or mortality of coast horned lizard and Northern California legless lizard if they are present within the work area. The potential to encounter these species would be highest in already vegetated or moist areas (e.g., vegetation islands); however, these species can also be found in open sand areas as they travel and disperse between more suitable habitat areas. As part of SPRs, pre-construction surveys are required prior to conducting listed plant management activities in the vegetation islands or other suitable habitat for coast horned lizard and Northern California legless lizard to avoid harm and injury to individual lizards. If an individual were observed, activities would be postponed until appropriate measures are in place. Overall, these activities could create additional vegetated and/or cover habitats for both Northern California legless lizard and coast horned lizard, which would be beneficial to these species. As a result, impacts on coast horned lizard and Northern California legless lizard would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP could occur in suitable habitat for coast horned lizard and Northern California legless lizard. CalVTP activities would likely benefit these species overall by removing invasive species from some suitable habitat areas. Habitat restoration conducted in the HCP area to date is not known to have impacted these species. CalVTP restoration activities could result in injury or mortality if a coast horned lizard or Northern California legless lizard is present within the work disturbance area. Restoration could

directly affect all life stages (i.e., eggs, hatchlings, juveniles, and adults), including by grading, ground disturbance with hand tools, vegetation removal and installation, and maintenance activities. In addition, CalVTP activities could disturb coast horned lizards or Northern California legless lizards located near the work area and cause them to move from cover where they may be exposed to predation. As part of SPRs, surveys for these species would be conducted, as needed, to determine if horned lizard or Northern California legless lizard is present. If a coast horned lizard or Northern California legless lizard is observed, activities would be postponed until appropriate measures are in place. As a result, potential impacts to coast horned lizard and Northern California legless lizard from CalVTP activities would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). Cable fencing occurs outside of vegetated areas (i.e., typical coast horned lizard and Northern California legless lizard habitat). Although open sand areas are considered suitable upland habitat for coast horned lizard and Northern California legless lizard and these species could disperse through and be injured or killed by equipment associated with these activities, this habitat is thought to be infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover. This is especially true since the cable fence is located along the shoreline where these species are unlikely to occur. As a result, the impact of this activity on coast horned lizard or Northern California legless lizard would be less than significant.

Grover Beach Lodge and Conference Center (CA-38). Impacts to Northern California legless lizard and coast horned lizard were analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). Central dune scrub habitat in the Grover Beach Lodge project area was determined to have potential to support coast horned lizard and Northern California legless lizard and impacts to these species, including vehicle strike, entrapment in trenches or stockpiled materials, or trampling, could occur during construction. Pre-construction surveys were required to be conducted for Northern California legless lizard and coast horned lizard. If an individual is observed during the survey, the EIR requires removal of the individual to suitable habitat outside the construction area. As a result, impact on Northern California legless lizard and coast horned lizard from the Grover Beach Lodge would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). Pismo Creek Estuary seasonal floating bridge would not occur within coast horned lizard or Northern California legless lizard habitat. As a result, no impact would occur.

Limited Trail Riding (CA-42). The Limited Trail Riding area comprises vegetated dunes near the Oso Flaco Lake area. Coast horned lizard and Northern California legless lizard could be present in the trail riding area site during trail construction or visitor use. Construction of the trail could result in injury or mortality of these species if they are present within the work area. In addition, construction and use of the trail could result in temporary flushing of coast horned lizard or Northern California legless lizard, which could cause increased stress or cause them to move from cover where they are exposed to predation and other threats. As part of SPRs, the work area would be clearly defined using fencing or flagging, as appropriate, to ensure impacts do not occur outside the work area. In addition, pre-construction surveys would be conducted prior to trail construction, as determined necessary by a CDPR-approved biologist, to avoid harm and injury to individual lizards. If a coast horned lizard or Northern California legless lizard is found in the survey, work would be postponed until appropriate measures are in place. As a result, impacts on coast horned lizard and Northern California legless lizard would be less than significant.

Vegetation within the Limited Trail Riding area would be removed along up to 2 miles of trail alignment at a maximum width of 20 feet. This would result in a loss of up to 4.8 acres of suitable coastal dune habitat for coast horned lizard and Northern California legless lizard. The HCP area contains approximately 1,621 acres of suitable vegetated dune habitat (e.g., silver dune lupine - mock heather scrub, silver dune lupine scrub, and mock heather scrub) for coast horned lizard and Northern California legless lizard. The potential loss of 4.8 acres of this vegetation for trail construction in the southern riding area would not result in a substantial habitat loss for the California horned lizard and Northern California legless lizard. As a result, this impact would be less than significant.

Replacement of the Safety and Education Center (CA-43). The safety and education center is located between Post 4 and Post 5 in open beach habitat. Replacement of the safety and education center could kill or injure coast horned lizard and/or Northern California legless lizard if they dispersed through the area while construction was occurring. Although the safety and education center location is considered suitable upland habitat for coast horned lizard and Northern California legless lizard, and these species could disperse through and be injured or killed by beach construction equipment, this habitat is likely infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover. As a result, the risk of this activity injuring or killing a coast horned lizard or Northern California legless lizard is expected to be low. Therefore, the impact of this activity on coast horned lizard or Northern California legless lizard would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities include new backdune planting areas and installing new Pier Avenue track-out control. CDPR could also plant supplemental vegetation within the 48-acre foredune or preserving vegetation within the Southern Exclosure. New Pier Avenue track-out control would be in a developed area and not within suitable habitat for these species. New backdune planting and/or supplemental planting in the foredune could result in injury or mortality of coast horned lizard and Northern California legless lizard if they are present within the work area. The potential to encounter these species would be highest in already vegetated or moist areas, which would be unlikely to require new planting; however, these species can be found in open sand areas as they travel and disperse between more suitable habitat areas. However, as part of SPRs, CDPR would conduct pre-construction surveys, as determined to be necessary by a CDPR-approved biologist, prior to planting or converting areas to vegetation to avoid harm and injury to individual lizards. If an individual was observed during the pre-construction survey or during the dust control activities, activities would be delayed until appropriate measures are in place. As a result, impacts on California horned lizard and Northern California legless lizard would be less than significant. New, converted, or supplemental planting for dust control would ultimately create additional vegetated and/or cover habitats for both Northern California legless lizard and California horned lizard and would, therefore, be beneficial to this species.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk spans aquatic and beach habitat. Oso Flaco Lake boardwalk replacement in aquatic habitat would have no impact on coast horned lizard or Northern California legless lizard. Boardwalk maintenance in upland habitat is discussed under Boardwalk/Other Pedestrian Access (CA-31) in EIR Appendix D.

Special Projects (CA-49). Special projects covered by the HCP would not be located in vegetation islands or directly adjacent to aquatic habitat where coast horned lizard and Northern California legless lizard are most likely to occur. Special projects could be located in bare sand

areas where these species could disperse. Construction of a special project could result mortality or injury of a dispersing individual if they dispersed through the construction area and/or could disturb an individual causing them to move from cover where they are exposed to predation and inclement weather. As part of SPRs, the work area would be clearly defined using fencing or flagging, as appropriate, to ensure impacts do not occur outside the work area. In addition, pre-construction surveys would be conducted prior to construction, as determined to be necessary by a CDPR-approved biologist, to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction survey or during construction, activities would be delayed postponed until appropriate measures are in place. As a result, impacts on coast horned lizard and Northern California legless lizard would be less than significant.

Special projects could remove up to 35 acres of bare sand habitat that could be used for dispersal, but this impact would be less than significant since suitable dispersal habitat would still be present throughout the HCP area.

Other CDPR Projects

There is no suitable habitat for Northern California legless lizards or coast horned lizards in the Park Corporation Yard or Le Sage Drive Bridge, and therefore, the Park Corporation Yard Improvements and Le Sage Drive Bridge Replacement would have no impact on these species. Northern California legless lizards have been observed in the designated campgrounds, and Northern California legless lizard and coast horned lizard could occur in the dune scrub or other vegetated habitats throughout the HCP area. The sandy habitats adjacent to the Pier and Grand Avenue Entrances and Lifeguard Towers could also support Northern California legless lizards. As a result, Northern California legless lizard and/or coast horned lizard could be injured or killed during construction of the Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Station Upgrades and Lifeguard Towers, and New North Beach Entrance Station. However, with implementation of SPRs, impacts on coast horned lizard and Northern California legless lizard would be less than significant. These projects would also have project specific environmental review that may include additional measures to protect these species.

Local Agencies

Dana Reserve Specific Plan. There is suitable habitat for coast horned lizard and Northern California legless lizard in the Dana Reserve Specific Plan area, and coast horned lizard is known to be present in the Specific Plan area. Project activities such as grading and other excavation could result in direct impacts on these species, as well as loss of habitat. Indirect impacts related to development and resulting occupancy include pet depredation and introduction of invasive Argentine ants that outcompete native ants, the main food resource for coast horned lizard. According to the Specific Plan EIR, with implementation of EIR Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-6.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to northern California legless lizard and Coast horned lizard would be less than significant (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation. Northern California legless lizard and coast horned lizard likely occur in the Phillips 66 Santa Maria Refinery project area's sandy soils in areas of natural vegetation. Demolition and remediation activities that occur outside of current existing hardscape (with the exception of areas with asphalt emulsion coating) could result in direct impacts to these species. Demolition and remediation activities could result in individuals being crushed or entombed resulting in direct mortality. Indirect impacts could

include stress and loss of reproductive success among relocated individuals, excessive noise resulting in permanent deafening, increased human activity resulting in changes to wildlife movement and behaviors, increased dust potentially impacting prey activity and availability, increased vehicle use of the area exacerbating road kills, and the introduction of invasive plant species changing future habitat conditions. Mitigation measure BIO.7-1 was included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that Northern California legless lizard and coast horned lizard would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The *Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan* states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to silvery legless lizard, now called Northern California legless lizard (SWCA Environmental Consultants 2022). With mitigation measures, potential impacts to this species were determined to be less than significant. Impacts to coast horned lizard are not mentioned, therefore it is assumed that coast horned lizards would not be impacted by this project. In addition, there are no CNDDB records of coast horned in or adjacent to the Specific Plan area (CDFW 2025).

Interim Sandbar Management Plan. The Interim Sandbar Management Plan proposes to pre-breach the Arroyo Grande Lagoon prior to storm events to prevent flooding. The pre-breach would occur in an open sand or sparsely vegetated foredune area close to the ocean where Northern California legless lizard and coast horned lizard have not been observed in the past and are unlikely to occur.

Arroyo Grande Creek Channel Waterway Management Plan. Northern California legless lizard's potential to occur was evaluated as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). It was determined that suitable habitat for Northern California legless lizard is not present within the project area.

Impacts to coast horned lizard were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). The Arroyo Grande Creek Channel WMP project was determined to have limited suitable habitat for coast horned lizard, and project activities were determined to have the potential to directly or indirectly impact coast horned lizard within suitable habitat. Biological monitoring and relocation, if necessary, were required prior to construction activities.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on coast horned lizard and Northern California legless lizard. Given the implementation of applicable SPRs, impacts on coast horned lizard and Northern California legless lizard from the proposed new activities do not contribute to cumulatively significant impacts on coast horned lizard and Northern California legless lizard even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on coast horned lizard and Northern California legless lizard. Cumulative project impacts on coast horned lizard and Northern California legless lizard would be ***less than significant***.

6.4.1.8 Western Burrowing Owl

HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b). SNPL adult banding would occur during the avian breeding season; therefore, activities would have ***no impact*** on western burrowing owl, which only occur in the HCP area in the winter.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. Western burrowing owls have not been observed in the Southern Exclosure or in foredune areas. These areas are generally not suitable for this species due to a lack of cover and/or suitable burrows. Therefore, it is anticipated that habitat manipulation in the Southern Exclosure would have no impact on western burrowing owl.

Listed plant management – Propagation and Outplanting (CA-15). Listed plant propagation and outplanting activities within the vicinity of a burrowing or foraging burrowing owl could temporarily displace individuals from their winter habitat or from foraging, altering their normal behavior patterns. Activities could also flush individuals from optimal habitat to less suitable habitat where they could be exposed to inclement weather or predation. However, the risk of these impacts occurring is low since western burrowing owl is uncommon with the HCP area. In addition, any listed plant outplanting and propagation activities would be expected to be temporary and short in duration. Finally, as part of SPRs pre-construction surveys are conducted, as determined to be necessary by a CDPR-approved biologist prior to listed plant management activities. If a wintering burrowing owl is observed, activities would be delayed until appropriate measures are in place. As a result, impacts to western burrowing owl would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. Western burrowing owls prefer open or sparsely vegetated habitats and are unlikely to occur in heavily vegetated areas that would be targeted for CalVTP activities. Burrowing owls do not breed in the HCP area and only occur there in the winter. Although unlikely, if CalVTP activities occur in the winter in suitable burrowing owl habitat, activities could temporarily displace individuals from their winter habitat or from foraging, altering their normal behavior patterns. Activities could also flush individuals from optimal habitat to less suitable habitat where they could be exposed to inclement weather or predation. As part of SPRs pre-construction surveys for burrowing owl would be conducted, if determined to be necessary by CDPR Environmental Scientist staff, prior to CalVTP activities. If a wintering burrowing owl is observed, activities would be delayed until appropriate measures are in place. As a result, impacts to western burrowing owl from CalVTP activities would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). Cable fence replacement would not occur within areas where western burrowing owl individuals or sign (e.g., feathers, pellets, tracks) have been observed. As a result, no impact would occur.

Grover Beach Lodge and Conference Center (CA-38). The potential for western burrowing owl to occur in the project area was analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). Suitable habitat for western burrowing owl was determined to be absent from the project area. As a result, no impact on western burrowing owl from the Grover Beach Lodge would occur.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41); Oso Flaco Lake Boardwalk Replacement (CA-48). Pismo Creek Estuary floating bridge and Oso Flaco boardwalk replacement would not occur within western burrowing owl habitat or areas where western

burrowing owl individuals or sign (e.g., feathers, pellets, tracks) have been observed. As a result, no impact would occur. Impacts from maintenance of the portion of Oso Flaco boardwalk in upland habitat are described in Boardwalk/Other Pedestrian Maintenance (CA-31) in EIR Appendix D.

Limited Trail Riding (CA-42). If a burrowing owl is present within the vicinity of trail construction and riding, it could be temporarily displaced, and normal behavior patterns could be altered. However, the risk of these impacts occurring is low since western burrowing owl is uncommon with the HCP area. In addition, as part of SPRs, pre-construction surveys would be conducted prior to construction, as determined to be necessary by a CDPR-approved biologist, to avoid harm and injury to individual burrowing owls. If an individual is observed during the pre-construction survey, activities would be delayed until appropriate measures are in place. As a result, the impacts to western burrowing owl from trail riding in the proposed area would be less than significant.

Replacement of the Safety and Education Center (CA-43). If a burrowing owl is present within the vicinity of the safety and education center, it could be temporarily displaced, and normal behavior patterns could be altered. However, the risk of these impacts occurring is low since western burrowing owls are uncommon with the HCP area and have rarely been observed within the open riding area. As a result, the impacts to western burrowing owl from replacement of the safety and education center would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities could temporarily displace foraging individuals or individuals using woody debris or dune vegetation for cover, altering their normal behavior patterns. It is also possible for new dust control activities to displace birds from safe resting locations and move them into areas where they are vulnerable to predation and recreation disturbance. However, these activities would be temporary and short in duration, and foraging individuals would be expected to move from the area to forage elsewhere. In addition, as part of SPRs, pre-construction surveys would be conducted for burrowing owl, if determined to be necessary by a CDPR-approved biologist, to avoid disturbing wintering burrowing owl. If an individual is observed, activities would be delayed until appropriate measures are in place. As a result, impacts are expected to be minimized.

Little is known about the burrowing owl habitat in the HCP area during the winter. Planting vegetation associated with dust control activities within the HCP area could reduce available suitable wintering habitat for burrowing owl, including reducing areas with woody debris or reducing open areas with suitable small mammal burrows. However, burrowing owls may also use dune vegetation for cover during the winter, and dust control activities would increase the amount of vegetative cover. Overall, the habitat impacts are expected to be minimal.

Special Projects (CA-49). Special project activities could result in destruction of burrows or removal of other wintering habitat (e.g., woody debris or vegetation) if they occur within suitable burrowing owl habitat. In addition, if a burrowing owl is present within the vicinity of special project activities, it could be temporarily displaced, and normal behavior patterns could be altered. As part of SPRs, the work area would be clearly defined using fencing or flagging, as appropriate, to ensure impacts do not occur outside of the work area. In addition, pre-construction surveys would be conducted prior to construction, as determined to be necessary by a CDPR-approved biologist, to avoid harm and injury to individual burrowing owls. If an individual is observed during the pre-construction survey, activities would be delayed until

appropriate measures are in place. As a result, impacts on burrowing owls would be less than significant.

Special projects could alter suitable wintering habitat by changing the microtopography or removing organic material (e.g., woody debris); however, these activities would be implemented in areas of high visitation where burrowing owl are less likely to occur due to the ongoing level of disturbance. Therefore, the risk of this impact is low and any impacts from special projects to habitat would be less than significant.

Other CDPR Projects

The Park Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, New North Beach Entrance Station, and Le Sage Drive Bridge Replacement would occur outside of suitable burrowing owl wintering habitat and would have ***no impact*** on wintering burrowing owl. Burrowing owls have been found near the Grand Avenue ramp. As a result, construction of the lifeguard towers as part of the Grand Avenue and Pier Avenue Entrance Station Upgrades and Lifeguard Towers project could disturb wintering burrowing owl and ultimately cause them to move from wintering cover. However, construction activities would be temporary, and with implementation of SPRs, impacts to western burrowing owl would be less than significant. These projects would also have project specific environmental review that may include additional measures to protect this species.

Local Agencies

Dana Reserve Specific Plan. Although suitable burrowing owl habitat (grazed grassland and squirrel burrows) is available in the Dana Reserve Specific Plan area, they are unlikely to occur. None were observed on the Specific Plan area during any of the surveys for the project (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation. Burrowing owls are known to overwinter in the Phillips 66 Santa Maria Refinery project area. Demolition and remediation activities would remove infrastructure and contaminated soil within the existing Santa Maria Refinery areas. This could include up to 26.5 acres of vegetation clearing, evaluated as a "worst case scenario" in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR . Mitigation measure BIO.8-2 was included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that burrowing owls would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to Central Coastal Scrub, eucalyptus stands, monarch butterfly, silvery legless lizard, loggerhead shrike, American badgers, and nesting raptors (SWCA Environmental Consultants 2022). Impacts to burrowing owl are not mentioned; therefore, it is assumed that burrowing owls would not be impacted by this project. The Monarch Dunes Specific Plan Land Use Concept Plan shows that existing open (potential burrowing owl habitat) areas on the golf course would not be developed and would remain after the Specific Plan is fully implemented (San Luis Obispo County 2023). In addition, there are no CNDDB records of burrowing owls in or adjacent to the Specific Plan area (CDFW 2025).

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan would occur primarily in the winter when burrowing owls are sometimes present in the HCP area. However, Plan activities would occur in open sand or sparsely vegetated areas that generally lack small mammal burrows required for this species. This species has been observed

infrequently in the HCP area, and it is expected that any burrowing owls near Plan activities would be able to fly out of harm's way.

Arroyo Grande Creek Channel Waterway Management Plan. Burrowing owl's potential to occur was evaluated as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). It was determined that suitable burrowing owl habitat is not present within the project area.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on western burrowing owl. With implementation of applicable SPRs, impacts on western burrowing owl from the proposed new activities do not contribute to cumulatively significant impacts on burrowing owl even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on western burrowing owl. Cumulative project impacts on burrowing owl would be ***less than significant***.

6.4.1.9 Nesting Birds

HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b). SNPL adult banding would occur on the open sand beaches where SNPL nests occur. The only other birds known to nest on the open sand beaches are ground nesting birds, such as California horned lark and killdeer. If a nest was located within or near an adult being captured for banding, this activity could result in destruction of the nest or disturbance of the chicks/incubating adults. However, this activity would be conducted by a 10(a)(1)(A) permitting biologist (or a biologist approved by the USFWS) who would ensure any disturbance to other nesting birds was minimized, including by adjusting or delaying activities as determined appropriate by the biologist. As a result, this impact would be less than significant.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. Habitat manipulation in the Southern Exclosure would occur outside the nesting bird season and therefore would have no impact on nesting birds.

Listed Plant Management – Propagation and Outplanting (CA-15). Propagation and outplanting activities, if they occur in suitable habitat for nesting birds, could result in disturbance impacts to nesting birds. Specifically, activities during the breeding season could disturb nesting birds and deter them from incubating eggs or chicks during the period of disturbance. These activities could also disturb foraging birds by displacing them from foraging habitat during the period of disturbance and/or deterring them from foraging, which could ultimately result in starvation of the attending adult or chicks. Consistent with SPRs, CDPR would conduct a nesting bird survey prior to conducting the activity if any activities are determined by a CDPR-approved biologist to have potential to impact nesting birds. If a nest is observed, activities would be delayed until appropriate measures are in place. As a result, the impact from this activity on nesting birds would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities would involve removal of nonnative vegetation, such as acacia, iceplant, and European beachgrass, and fuels management in the Pismo Lake property. The restoration of foredune and dune scrub habitat could benefit nesting birds over the long term by providing additional native nesting habitat. If CalVTP activities take place during the nesting bird season, activities could result in destruction of a nest

if it is present within the work area and/or disturbance of nesting birds if they are present within or near the work area. As part of SPRs, activities would be scheduled outside of the nesting bird season if feasible. If activities occur during the breeding season, a nesting bird survey would be conducted prior to conducting CalVTP activities at the discretion of an experienced CDPR biologist. If a nest is observed, activities would be delayed until appropriate measures are in place. As a result, impacts on nesting birds would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). Cable fence replacement would not occur within nesting bird season. As a result, no impact from this activity would occur.

Grover Beach Lodge and Conference Center (CA-38). Impacts to nesting birds were analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). Suitable habitat for numerous nesting bird species was determined to be present in the Grover Beach Lodge project area, and nesting bird surveys were required to be conducted between March and September as part of the mitigation measures in the EIR. Buffers were required if an active nest was located. As a result, impacts to nesting birds from the Grover Beach Lodge would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). Birds would not nest in the footprint of the Pismo Creek Estuary floating bridge since it would be built within aquatic habitat. Some birds (e.g., shorebirds) could nest within the vicinity of the Pismo Creek Estuary floating bridge; however, very limited suitable nesting habitat is available within the vicinity of the bridge location, and installation and removal activities would be temporary and relatively short in duration. In addition, all pedestrian activities would be temporary and relatively short-term in nature. As a result, impacts from the Pismo Creek Estuary floating bridge on nesting birds would be less than significant (see section 6.4.1 regarding nesting SNPL impacts).

Limited Trail Riding (CA-42). The Limited Trail Riding area comprises vegetated dunes in the direction of the Oso Flaco Lake area. Nesting birds could be present in the trail riding site during trail construction. If construction occurs during the nesting bird season, construction of the trail could result in destruction of a nest if it is present within the work area and/or disturbance of nesting birds if they are present within or near the work area. As part of SPRs, activities would be scheduled outside of the nesting bird season if feasible. If activities occur during the breeding season, nesting bird surveys would be conducted prior to conducting trail construction activities at the discretion of a CDPR biologist. If a nest is observed, activities would be delayed until appropriate measures are in place. As a result, impacts on nesting birds would be less than significant.

Visitor use of the trail riding area would be expected to have similar impacts on nesting birds as other recreation activities, including motorized vehicle recreation and pedestrian recreation, as described in EIR Appendix D.

Vegetation within the designated trail site would be removed along up to 2 miles of trail alignment at a maximum width of 20 feet. This would result in a loss of up to 4.8 acres of coastal dune habitat suitable for some species of nesting birds. There are 1,621 acres of similar coastal dune habitat (e.g., silver dune lupine - mock heather scrub, silver dune lupine scrub, and mock heather scrub) in the HCP area, and more similar habitat in dunes nearby the HCP area. The potential loss of 4.8 acres of this vegetation for trail construction in the southern riding area would not result in a substantial habitat loss for nesting birds. As a result, this habitat impact would be less than significant.

Replacement of the Safety and Education Center (CA-43). The safety and education center is located between Post 4 and Post 5 in open beach habitat. Most nesting birds, including raptors, are not expected to nest in or near the safety and education center because suitable habitat is not present (e.g., trees, shrubs). Replacement of this structure would involve minimal ground disturbance. Suitable nesting habitat is present for ground-nesting birds (e.g., SNPL[41], California horned lark, shorebirds) near the safety and education center. However, the safety and education center is located near an area open to recreation that is subject to frequent disturbance; therefore, it is unlikely that birds would nest there. In addition, as part of SPRs, construction activities would be conducted outside the avian nesting season, if feasible. If activities occur during the nesting season and if determined to be necessary by a CDPR-approved biologists, nesting bird surveys would be conducted prior to replacing the safety and education center. If a nest is observed, activities would be delayed until appropriate measures are in place. Therefore, the impact of this activity on nesting birds would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities would not impact aquatic or riparian nesting birds, since these activities would not occur in aquatic or riparian habitat. Any supplemental planting in the 48-acre foredune or fencing installed to preserve Southern Exclosure vegetation would be outside of the nesting bird season and thus would not impact nesting birds. New dust control activities in the nesting season could result in destruction of a bird nest if it is present within the work area. New dust control activities could also disturb nearby nesting birds and drive adult birds from the nest and, ultimately, lead to neglect or abandonment of eggs or chicks. However, in accordance with the Dust Control EIR and SPRs, new dust control activities would be conducted outside the avian nesting season (September 16 to February 28/29) to the extent feasible. If new dust control activities occur in the avian nesting season (generally March 1 to September 15), pre-construction surveys for nesting birds would be conducted, as appropriate. If a nesting bird is found, a buffer zone would be established around the nest until the young have fledged or the nest is no longer active. With implementation of these measures, the impact on nesting birds is expected to be minimized.

Planting new vegetation associated with dust control activities within the HCP area can reduce available suitable nesting habitat for some ground nesting birds, including California horned lark, by decreasing the amount of bare ground. However, California horned lark is thought to be an uncommon nester in the HCP area. In addition, planting or preserving vegetation could provide nesting habitat for some species of birds. As a result, the habitat impacts are expected to be minimal.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk spans both aquatic, dune scrub, and beach habitat. Impacts from maintenance of the portion of Oso Flaco boardwalk in upland habitat are described in Boardwalk/Other Pedestrian Maintenance (CA-31) in EIR Appendix D. The Oso Flaco boardwalk in aquatic habitat would be replaced in the same location where possible but may need to be replaced adjacent to the current location. The boardwalk is located in and near areas that are known bird hotspots with many known nesting species in close proximity to boardwalk. If boardwalk replacement activities occurred during the breeding season, nesting birds could be present within or directly adjacent to the work area in aquatic habitat. If bird nests are present, replacement activities could result in destruction of a nest. In addition, nesting birds could be disturbed by boardwalk replacement construction activities adjacent to a nest, which could drive adult birds from the nest and, ultimately, lead to

[41] See section 6.4.1.1 for a discussion of potential impacts on nesting SNPL.

neglect or abandonment of eggs or chicks. However, as part of SPRs, construction activities would be conducted outside the avian nesting season, if feasible. If activities occur during the nesting season and if determined to be necessary by a CDPR-approved biologist, nesting bird surveys would be conducted prior to replacing the boardwalk. If a nest is observed, activities would be delayed until appropriate measures are in place. As a result, impacts on nesting birds would be less than significant.

Special Projects (CA-49). Special projects entail the construction of new facilities may occur in terrestrial habitats in Pismo State Beach or in Oceano Dunes SVRA. Special projects could result in destruction of a bird nest if they were constructed during the breeding season and a nest was located within the work area. Special projects in the breeding season could also result in disturbance of nesting birds adjacent to the work area. Specifically, adults could leave the nest exposing eggs or chicks to predation and/or inclement weather during the period of disturbance. Foraging adults could also be disturbed from foraging during the activities, which could lead to delays in the adults returning to the nest to provide food or incubate the eggs or chicks. As part of SPRs, construction activities would be conducted outside the avian nesting season, if feasible. If activities occur during the nesting season and if determined to be necessary by a CDPR-approved biologist, nesting bird surveys would be conducted prior to special project activities. If a nest is observed, activities would be delayed until appropriate measures are in place. As a result, the impact on nesting birds would be less than significant.

Special projects would reduce the amount of nesting habitat available to ground nesting birds by precluding them from the areas within the footprint of the structures. Special projects are small and only up to 35 acres of habitat would be lost during the permit term. As a result, habitat impacts would be less than significant.

Other CDPR Projects

Nesting birds could occur anywhere in the HCP area. As a result, other CDPR projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, Le Sage Drive Bridge Replacement, and New North Beach Entrance Station) could impact nesting birds if they are constructed during the nesting bird season (generally March 1 through September 15). Trees and shrubs on the project sites could provide nesting habitats for a variety of bird species, and buildings at the Corporation Yard could support nesting swallows. If trees, shrubs, or buildings are removed as part of the projects, the projects could result in destruction of a bird nest. In addition, any construction or pedestrian activity near a bird nest during the breeding season could result in disturbance of nesting birds. Ultimately, adults could leave the nest exposing eggs or chicks to predation and/or inclement weather during the period of disturbance. However, as part of SPRs, construction activities would be conducted outside the avian nesting season, if feasible. If activities occur during the nesting season and if determined to be necessary by a CDPR-approved biologist, nesting bird surveys would be conducted prior to constructing these projects. If a nest is observed, activities would be delayed until appropriate SPRs are in place, such as a no-disturbance buffer, and/or biological monitoring. With implementation of SPRs, impact on nesting birds would be less than significant. These projects would also have project-specific environmental review that may include additional measures to protect nesting birds.

Local Agencies

Dana Reserve Specific Plan. The Dana Reserve Specific Plan would affect common and special-status nesting birds by removing coast live oak woodland, perennial grassland, and Burton Mesa chaparral. Loss of coast live oak woodland particularly affects cavity nesting species, such as woodpeckers, wrens, northern flicker (*Colaptes auratus*), and oak titmouse, as well as canopy nesting species, such as raptors, Hutton's vireo (*Vireo huttoni*), California scrub-jay (*Aphelocoma californica*), chestnut-backed chickadee (*Poecile rufescens*), western bluebird (*Sialia mexicana*), and tree swallow (*Tachycineta bicolor*). Two USFWS BCC identified in the project area could be adversely affected from oak woodland removal: Nuttall's woodpecker and oak titmouse. According to the Specific Plan EIR (SWCA Environmental Consultants 2022), with implementation of EIR Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-7.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts from the Specific Plan on nesting birds would be less than significant.

Phillips 66 Santa Maria Refinery Demolition and Remediation. The Phillips 66 Santa Maria Refinery project area contains nesting habitat for a variety of special-status and common nesting birds. Demolition and remediation activities would remove infrastructure and contaminated soil within the existing Santa Maria Refinery areas. This could include up to 26.5 acres of vegetation clearing (San Luis Obispo County 2024). Mitigation Measure BIO.8-1 was included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that nesting birds would not be impacted during demolition and remediation activities.

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to loggerhead shrikes, and nesting raptors (SWCA Environmental Consultants 2022) With mitigation measures, potential impacts to these species were determined to be less than significant.

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan would occur primarily in the winter outside of the nesting bird season. The Plan also includes a pre-activity survey for nesting birds and avoidance measures in coordination with CDPR if any nests are found.

Arroyo Grande Creek Channel Waterway Management Plan. Impacts to nesting birds were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). Nesting birds were determined to have potential to occur throughout the project area and project activities were determined to have the potential to directly or indirectly impact nesting birds. Pre-construction surveys were required prior to construction activities in the nesting bird season (March 1 to September 15). If an active nest is found, a no-disturbance buffer is required to be implemented. In addition, biological monitoring of vegetation removal was required year-round. With these measures in place, impacts to nesting birds were determined to less than significant.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on nesting birds. With implementation of applicable AMMs and SPRs, impacts on nesting birds from the proposed new activities do not contribute to cumulatively significant impacts on nesting birds even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not

have a significant cumulative impact on nesting birds. Cumulative project impacts on nesting birds would be ***less than significant***.

6.4.1.10 Wintering/Migratory Birds

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding. SNPL adult banding would occur during the avian breeding season; therefore, activities would have no impact on wintering/migratory birds.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure; Listed Plant Management – Propagation and Outplanting (CA-15); Habitat Restoration Program (CA-16) – CalVTP; Cable Fence Maintenance – Replacement (CA-28); Grover Beach Lodge and Conference Center (CA-38); Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41); Limited Trail Riding (CA-42); Replacement of the Safety and Education Center (CA-43); Activities could temporarily displace foraging or wintering birds, altering their normal behavior patterns. It is also possible for activities to flush wintering or foraging birds from optimal habitat to less suitable habitat. However, any disturbances would be temporary and additional foraging and roosting habitat would be present away from activities. As a result, impacts would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities could temporarily displace foraging wintering or migratory birds, altering their normal behavior patterns. New dust control activities could also temporarily displace birds from safe roosting locations and move them into areas where they are vulnerable to vehicle strike. Most birds fly out of harm's way to another safe location; therefore, this vehicle strike impact would not occur frequently. In addition, new dust control activities would be localized and short in duration. In addition, new vegetation planting or preservation could provide roosting and foraging habitat for some species of wintering/migratory birds. As a result, impacts are expected to be minimal.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk spans both aquatic, dune scrub, and beach habitat. Impacts from maintenance of the portion of Oso Flaco boardwalk in upland habitat are described in Boardwalk/Other Pedestrian Maintenance (CA-31) in EIR Appendix D. The Oso Flaco boardwalk in aquatic habitat would be replaced in the same location where possible but may need to be replaced adjacent to the current location. The boardwalk is located in and near areas that are known bird hotspots with many known migratory species in close proximity to boardwalk. Boardwalk replacement could temporarily displace foraging wintering or migratory birds, altering their normal behavior patterns. However, construction activities would be temporary and additional foraging and roosting habitat would be present away from activities. As a result, impacts would be less than significant.

Special Projects (CA-49). Special projects entail the construction of new facilities that may occur in Pismo State Beach or in Oceano Dunes SVRA. Special projects are not anticipated to result in injury or harm to wintering/migratory birds since individuals and/or flocks would be expected to move from the construction area to another location and/or special projects would not be constructed in a manner that would injure or kill a foraging or roosting individual or flock. Special project activities could result in disturbance of foraging or roosting wintering/migratory birds. Specifically, individuals or flocks could be displaced from foraging or roosting habitat during the period of disturbance and/or could be deterred from foraging or roosting during the period of disturbance. However, most activities would be temporary and short in duration and

suitable foraging and roosting habitat would be present away from the activities. As a result, impacts would be less than significant.

Special projects would reduce the amount of foraging/roosting habitat available to wintering/migratory birds by precluding them from the areas within the footprint of the structures. Most special projects are expected to be placed in open sand habitat where shorebirds and/or some waterbirds are expected to forage and/or roost and are not expected to impact every type of wintering/migratory bird, such as songbirds. However, special projects are small and wintering/migratory birds would only lose up to 35 acres of foraging or roosting habitat during the permit term. As a result, habitat impacts would be less than significant.

Other CDPR Projects

The other CDPR projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, Le Sage Drive Bridge Replacement, and New North Beach Entrance Station) would not result in injury or mortality of foraging/migratory birds. Other CDPR projects could result in disturbance of foraging or roosting wintering/migratory birds. Specifically, individuals or flocks could be displaced from foraging or roosting habitat during the period of disturbance and/or could be deterred from foraging or roosting during the period of disturbance. However, most activities would be temporary and short in duration, and suitable foraging and roosting habitat would be present away from the activities. As a result, impacts to foraging/migratory birds would be less than significant.

Local Agencies

Dana Reserve Specific Plan. The Dana Reserve Specific Plan could have short-term, less than significant impacts on wintering/migratory birds during construction, similar to the proposed project during implementation of new covered activities. The Specific Plan would also result in loss of habitat for wintering/migratory birds, although this impact would be offset by the preservation of similar habitat at a 2:1 ratio as required by the Specific Plan EIR (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation

The Phillips 66 Santa Maria Refinery Demolition and Remediation Project could have short-term, less than significant impacts on wintering/migratory birds during demolition and remediation activities, similar to the proposed project during implementation of new covered activities.

Monarch Dunes Specific Plan. The Monarch Dunes Specific Plan could have short-term, less than significant impacts on wintering/migratory birds during construction activities, similar to the proposed project during implementation of new covered activities.

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan would occur primarily in the winter when wintering birds and sometimes migratory birds are present in the HCP area. However, Plan activities would occur in open sand or sparsely vegetated foredunes that provide limited foraging and roosting habitat for wintering/migratory birds. Plan activities would also be localized, infrequent, and short in duration and it is expected that any wintering/migratory birds near Plan activities would be able to fly out of harm's way.

Arroyo Grande Creek Channel Waterway Management Plan. The Arroyo Grande Creek Channel WMP could result in disturbance of foraging or roosting wintering/migratory birds. However,

most activities would be temporary and short in duration, and suitable foraging and roosting habitat would be present away from the activities.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on wintering/migratory birds (see also sections 6.4.1.1 regarding wintering SNPL and 6.4.1.8 regarding wintering burrowing owls). Impacts on wintering/migratory birds from the proposed new activities are less than significant and do not contribute cumulatively significant impacts on wintering/migratory birds even when combined with related impacts from potential future HCP covered activities, CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on wintering/migratory birds. Cumulative project impacts on wintering/migratory birds would be ***less than significant***.

6.4.1.11 Roosting Bats

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding and SNPL Habitat Manipulation in Southern Exclosure; Cable Fence Maintenance – Replacement (CA-28); Grover Beach Lodge and Conference Center (CA-38); Replacement of the Safety and Education Center (CA-43). These activities are not within or near suitable bat roosting or foraging habitat and would have no impact on roosting bats.

Listed Plant Management – Propagation and Outplanting (CA-15). Listed plant propagation and outplanting may occur near suitable bat roosting or foraging habitat but occurs on foot with the use of hand tools and is not expected to impact roosting bats. Similar listed plant management activities have not impacted roosting bats in the past. Therefore, listed plant propagation and outplanting would have no impact on roosting bats.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP would include the removal of nonnative trees that could provide habitat for roosting bats. If roosting bats are present in trees removed as part of CalVTP activities, activities could result in bat injury or mortality or abandonment of roost sites. However, as part of SPRs, construction would occur outside of the bat maternity season if feasible, and a CDPR-approved biologist would survey trees to be removed for suitable bat roosting habitat. If roosting bat habitat or signs of bats are present, activities would be postponed until appropriate measures are in place. As a result, potential impacts to roosting bats from Cal VTP activities would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). Bats could forage over the Pismo Creek Estuary; however, installation and removal of the floating bridge would occur during the daytime and be short in duration. No suitable bat roosting habitat occurs in or adjacent to the Pismo Creek Estuary. Therefore, this activity would have no impact on roosting bats.

Limited Trail Riding (CA-42). The limited trail riding area consists of scrub habitat and is unlikely to support roosting bats, although they may forage nearby at Oso Flaco Lake. Therefore, limited trail riding is expected to have no impact on roosting bats.

Dust Control Activities (CA-44) – New Dust Control Activities. New dust control activities include new backdune planting areas, installing new Pier Avenue track-out control, potentially planting supplemental vegetation within the 48-acre foredune and preserving vegetation within the Southern Exclosure. New Pier Avenue track-out control would be in a developed area and

not within suitable bat roosting habitat. New backdune planting would likely occur in open sand areas and not near trees or structures that could provide roosting habitat for bats. The existing 48-acre foredune and Southern Exclosure where supplemental planting or preservation could occur do not include roosting bat habitat. Therefore, new dust control activities would have no impact on roosting bats.

Oso Flaco Lake Boardwalk Replacement (CA-48). Oso Flaco Lake boardwalk replacement would occur in foraging habitat for bats (Oso Flaco Lake) and near potential bat roosting habitat (arroyo willow thickets). Construction would occur in the daytime when bats are not active and would be short-term. However, construction activities could include loud noises and/or disturbance to vegetation that could disturb roosting bats, resulting in altered behavior patterns or abandonment of roosts. In addition, if construction requires tree removal, bats could be inadvertently injured or killed. However, as part of SPRs, construction would occur outside of the bat maternity season if feasible, and a CDPR-approved biologist would survey trees to be removed for suitable bat roosting habitat. If roosting bat habitat or signs of bats is present, activities would be postponed until appropriate measures are in place. As a result, potential impacts to roosting bats from Oso Flaco boardwalk replacement would be less than significant.

Special Projects (CA-49). Special projects entail the construction of new facilities that may occur in Pismo State Beach or in Oceano Dunes SVRA. Special projects are not expected to result in injury or harm to roosting bats because they are not expected to occur in areas where roosting bats have been observed and are expected to occur within areas subject to a high level of recreation and limited vegetation where roosting bats would not occur. As a result, potential impacts to roosting bats from special projects would be less than significant.

Other CDPR Projects

The trees at the Park Corporation Yard, Oceano Campground, Grand Avenue and Pier Avenue Entrance Stations, North Beach Entrance Station, and Le Sage Bridge Replacement project sites could support roosting bats. In addition, buildings at the Corporation Yard and Oceano Campgrounds may have roofing that could be used by roosting bats. Any removal of trees or buildings associated with these projects could result in injury, mortality, or displacement of roosting bats, and construction near roosting bats could temporarily disturb them or cause roost abandonment. However, construction activities would be temporary and with implementation of SPRs, this impact would be less than significant. These projects may also have project specific environmental review that may include additional measures to protect roosting bats.

Local Agencies

Dana Reserve Specific Plan. The Dana Reserve Specific Plan area contains suitable habitat and known occurrences of special-status and common species of bats. Roosting bats and/or maternal bat colonies may be present in the Specific Plan area in trees and snags with appropriate cavities or loose bark. Specific Plan activities, including building/structure demolition, tree removal, grading, and other excavation work, could result in take of bat species or disturbance of bat roosts. The Specific Plan would also result in loss of habitat for roosting bats, although this impact would be offset by the preservation of similar habitat at a 2:1 ratio as required by the Specific Plan EIR (SWCA Environmental Consultants 2022). According to the Specific Plan EIR, with implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-8.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to bats would be less than significant.

Phillips 66 Santa Maria Refinery Demolition and Remediation. Several special-status bat species including pallid bat, Townsend's big-eared bat, western red bat, hoary bat (*Lasiurus cinereus*), and Yuma myotis could potentially roost in the trees and infrastructure in the Phillips 66 Santa Maria Refinery project area. Additionally, as facility operations stop and staff levels decrease, the infrastructure may become more attractive as potential roosting habitat. If bats are roosting in structures during demolition activities, they could be killed, resulting in direct impacts. Demolition or remediation work adjacent to bat roost sites may cause roost abandonment which could lead to indirect impacts to bats. Therefore, project activities, including demolition, tree removal, and remediation work, could result in take of bat species or disturbance of bat roosts. Mitigation Measure BIO.9-1 was included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that roosting bats would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to Central Coastal Scrub, eucalyptus stands, monarch butterfly, silvery legless lizard, loggerhead shrike, American badgers, and nesting raptors (SWCA Environmental Consultants 2022). Impacts to roosting bats are not mentioned; therefore, it is assumed that roosting bats would not be impacted by this project. Most of the trees that could provide bat roosting habitat in the Specific Plan area are in areas would not be developed, such as the monarch grove and the golf course (San Luis Obispo County 2023). In addition, there are no CNDDB records of roosting bats in or adjacent to the Specific Plan area (CDFW 2025).

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan would occur primarily in the winter outside of the bat maternity roosting season. In addition, Plan activities would occur in open sand or sparsely vegetated foredunes that do not provide roosting habitat for bats.

Arroyo Grande Creek Channel Waterway Management Plan. This project is intended to improve habitat in Arroyo Grande Creek and could benefit roosting bats in the long-term. The project could disturb roosting bats in the short-term, but this impact would be less than significant with mitigation incorporated in the project.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on roosting bats. With implementation of applicable AMMs and SPRs, impacts on roosting bats from the proposed new activities do not contribute to cumulatively significant impacts on roosting bats even when combined with related impacts from potential future HCP covered activities, CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on roosting bats. Cumulative project impacts on roosting bats would be ***less than significant***.

6.4.1.12 American Badger

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding and SNPL Habitat Manipulation in Southern Exclosure; Replacement of the Safety and Education Center (CA-43). American badgers and/or badger dens have never been observed within the areas open to motorized

recreation. American badger tracks were observed in April 2019 in the open riding area within and near BBQ flats and adjacent vegetation islands. This is the first time badger tracks or any other sign have been observed in this area, and the tracks indicate the badger was using the vegetation islands, which are closed to motorized recreation. Overall, American badgers are unlikely to occur in areas open to motorized recreation. As a result, these activities would have no impact on American badger.

Listed Plant Management – Propagation and Outplanting (CA-15). Propagation and outplanting activities in the Phillips 66 Leasehold or vegetation islands could result in disturbance to American badger and ultimately result in burrow abandonment and relocation if badgers are present within or near the work area. As part of SPRs, pre-construction surveys would be conducted, as determined to be necessary by CDPR-approved biologist, prior to conducting listed plant management activities in suitable habitat (e.g., areas where American badger or badger dens have been observed previously) to avoid disturbance to American badger. If an individual is observed during the pre-construction survey, activities would be delayed until the individual has moved from the area or until appropriate avoidance measures are in place (e.g., a no-disturbance buffer). With implementation of SPRs, impacts on American badger would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities would likely benefit American badgers overall by restoring native dune scrub habitat suitable for this species. CalVTP activities would mostly occur in areas with non-native acacia, iceplant, and European beachgrass where American badgers and badger dens are less likely to occur, although badger dens could occur in the Pismo Lake area where fuel reduction is planned. Although unlikely, if an American badger is present in the work area it could be injured or killed or its den crushed by mechanical removal of invasive plants and/or prescribed fire. Activities could also result in den abandonment if occupied dens are present in or near the work area. As part of SPRs, pre-construction surveys would be conducted, as determined to be necessary by CDPR-approved biologist, prior to conducting CalVTP activities in suitable habitat. If an individual or occupied den is observed during the pre-construction survey, activities would be delayed until appropriate measures are in place. As a result, impacts on American badger would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). Suitable American badger habitat is not present within the cable fence area. As a result, no impact from cable fence replacement would occur.

Grover Beach Lodge and Conference Center (CA-38). The potential for American badger to occur in the project area was analyzed as part of the Grover Beach Lodge EIR (SWCA Environmental Consultants 2012). Suitable habitat for American badger was determined to be absent from the project area. As a result, no impact on American badger from the Grover Beach Lodge would occur.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41) and Oso Flaco Lake Boardwalk Replacement (CA-48). Pismo Creek Estuary (floating) bridge and Oso Flaco boardwalk replacement would not occur within American badger habitat or areas where American badger or badger sign (e.g., dens) have been observed. As a result, no impact would occur.

Limited Trail Riding (CA-42). The Limited Trail Riding area would not occur within an area where American badger or badger sign (e.g., dens) have been observed. As a result, no impact would occur.

Dust Control Activities (CA-44) – New Dust Control Activities. Although unlikely because American badgers are uncommon in the HCP area, new dust control activities could crush an American badger den or result in disturbance to American badger if they are present within or near the work area and could ultimately result in burrow abandonment and relocation. However, as part of SPRs, CDPR would conduct pre-construction surveys for special-status species (e.g., American badger), as determined to be necessary by a CDPR-approved biologist, to reduce impacts to American badgers. As a result, impacts are expected to be minimized.

Planting backdune vegetation for dust control most likely has a beneficial impact on American badger by increasing the amount of suitable vegetated dune habitat in the HCP area.

Special Projects (CA-49). Special projects entail the construction of new facilities that may occur in Pismo State Beach or in Oceano Dunes SVRA. Special projects are not expected to result in injury or harm to American badger or badger dens because they are not expected to occur in areas where American badger have been observed and are expected to occur within areas subject to a high level of recreation and with limited vegetation. Therefore, impacts on American badger would be less than significant.

Othe CDPR Projects

Other CDPR projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, New North Beach Entrance Station, and LeSage Bridge Replacement) would have no impact on American badger since no suitable habitat exists within these locations.

Local Agencies

Dana Reserve Specific Plan. American badger occurs in the Dana Reserve Specific Plan area. Specific Plan activities, including grading and other excavation work, could result in impacts to American badger adults or young or disturbance of natal dens and abandonment by adult badgers. The Specific Plan would also result in loss of habitat for American badger, although this impact would be offset by the preservation of similar habitat at a 2:1 ratio as required by the Specific Plan EIR. According to the Specific Plan EIR, with implementation of Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-9.1, BIO/mm-14.1, BIO/mm-15.1, and BIO/mm-18.4, impacts to American badger would be less than significant (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation. American badgers occur in the Phillips 66 Santa Maria Refinery project area. Project activities, demolition, and remediation work that requires excavation and ground disturbance, particularly in natural habitat areas, could result in impacts to American badger adults or young or disturbance of natal dens and abandonment by adult badgers. During the winter, badgers do not truly hibernate but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Mitigation Measure BIO.10-1 was included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that American badgers would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to American badgers (SWCA Environmental Consultants 2022). With mitigation measures, potential impacts to this species were determined to be less than significant.

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan activities would occur in open sand or sparsely vegetated foredunes that do not provide suitable habitat for American badgers.

Arroyo Grande Creek Channel Waterway Management Plan. American badger's potential to occur was evaluated as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). It was determined that suitable American badger habitat is not present within the project area. As a result, no impact from this activity would occur.

Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on American badger. With implementation of applicable AMMs and SPRs, impacts on American badger from the proposed new activities do not contribute to cumulatively significant impacts on American badger even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on American badger. Cumulative project impacts on American badger would be ***less than significant***.

6.4.1.13 Plants

HCP Potential Future Covered Activities

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding. SNPL adult banding would occur on foot in open sand areas and would not impact special-status plant species.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. In general, areas within the Southern Exclosure consist of bare sand and do not contain suitable habitat or known occurrences of special-status plant species. Although unlikely, special-status plant species known to occur in foredune areas and/or that are locally common and widespread in the HCP area could occur within the Southern Exclosure in sparse vegetation, including red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, surf thistle, beach spectaclepod, Blochman's leaf daisy, suffrutescent wallflower, dunedelion, crisp monardella, California spineflower, South Coast branching phacelia, and Blochman's ragwort. Equipment use and worker foot traffic during habitat manipulation could result in the injury or mortality of individual special-status plants if they are present in the work area. Habitat manipulation activities could also result in mechanical or physical removal of vegetation and modification of the seed bank due to grading and/or excavation. Any state or federally listed plants found in the work area would be avoided with an appropriate buffer. Consistent with SPRs, CRPR listed plants would be avoided if feasible, although a small number of these plants could be permanently or temporarily impacted. However, habitat manipulation would not impact the overall population of these species in the HCP area. Habitat for these species is marginal in the Southern Exclosure, and there are large areas of more suitable habitat elsewhere in the HCP area where these species occur. Therefore, impacts on special-status plants would be less than significant.

Listed Plant Monitoring – Propagation and Outplanting (CA-15). Propagating listed species, including marsh sandwort, La Graciosa thistle, surf thistle, beach spectaclepod, Nipomo Mesa lupine, and Gambel's watercress, requires collecting seed or plant materials and cultivating the species in the greenhouse to ultimately transplant individuals into suitable habitat. These activities provide a net benefit for the listed plant species; however, some listed plant individuals

growing within the same habitat could be affected during these activities. Specifically, a listed plant could be inadvertently missed during monitoring and pre-restoration surveys and could be stepped on by field survey crews or work crew. Gathering materials for propagation also poses a similar risk of damaging specimens during field collection since propagated individuals could be damaged or destroyed in the greenhouse or during transplanting. To minimize any impacts that could occur during experimental propagation and outplanting, CDPR would coordinate with the Wildlife Agencies, and all work would be conducted in accordance with federal and state regulations protecting listed plant species. Other special-status plant species are not expected to be impacted by this activity. As a result, effects from propagation and outplanting of listed plants would be less than significant and also would be beneficial to listed plant populations.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities would likely benefit special-status plants overall by restoring native foredune and dune scrub habitat that could support special-status plants. The CalVTP area is not within habitat for any of the HCP covered plant species (Figure 3-1 and Figure 6-7), and CalVTP activities are not expected to occur in wetlands to impact wetland obligate plants (like Hickman's popcornflower). CalVTP activities would occur in areas with non-native acacia, iceplant, and European beachgrass where special-status plants are less likely to occur. Although unlikely, CalVTP activities could result in injury or mortality of special-status plants if they are present in the work area. Consistent with SPRs, CRPR listed plants would be avoided if feasible, although a small number of these plants could be permanently or temporarily impacted. CalVTP activities could result in the removal of a small number of locally common and widespread special-status plants including red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, Blochman's leaf daisy, suffrutescent wallflower, dunedelion, crisp monardella, California spineflower, South Coast branching phacelia, and Blochman's ragwort, but would not impact the overall population of these species in the HCP area. These activities would occur mostly in marginal habitat for special-status plants, and there are large areas of more suitable habitat elsewhere in the HCP area where these species occur. Therefore, impacts on special-status plants would be less than significant.

Cable Fence Maintenance – Replacement (CA-28). The cable fence would be replaced in the same area where it is currently located. No special-status plant species are known to occur at this location. As a result, no impact on special-status plants would occur.

Grover Beach Lodge and Conference Center (CA-38). An EIR has been prepared for the Grover Beach Lodge and Conference Center (SWCA Environmental Consultants 2012) project area. Of the species considered in this EIR, Blochman's leafy daisy is known to occur in the project area and surf thistle, dune larkspur, beach spectaclepod, and Nipomo Mesa lupine have potential to occur within the project area. The Grover Beach Lodge and Conference Center EIR includes measures to protect special-status plants, including avoiding areas with potential to support special-status plants (as feasible), conducting rare plant surveys in suitable habitat within the appropriate blooming period prior to construction, and propagating and/or mitigating for rare plants as necessary. As a result, impacts to special-status plants from the construction of the Grover Beach Lodge and Conference Center would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The Pismo Creek bridge would be a seasonal, floating pedestrian bridge across Pismo Creek estuary. Installing the bridge should reduce the pedestrian impact on Pismo Creek by reducing erosion and providing an alternative to walking through the mouth of the creek for pedestrians wishing to walk up the coast. As a result, overall impacts to special-status plants in the area and their habitat would be beneficial since the bridge would prevent existing trampling of bank vegetation by pedestrians.

Although unlikely, species found in foredune and/or wetland habitats and some locally common and widespread species have the potential to occur along Pismo Creek estuary, including red sand verbena, Blochman's leafy daisy, suffrutescent wallflower, southwestern spiny rush, dunedelion, crisp monardella, South Coast branching phacelia, Hickman's popcornflower, and Blochman's ragwort. Equipment use and worker foot traffic during construction of the bridge could result in the injury or mortality of individual special-status plants if they are present in the work area. Construction activities could also result in mechanical or physical removal of vegetation and modification of the seed bank due to grading and/or excavation. Construction activities and/or pedestrian traffic across the bridge—once it is operational—could introduce invasive weeds to the area, which could outcompete special-status plant species. Consistent with SPRs, CRPR listed plants would be avoided if feasible. Installation and removal of the bridge could result in the removal of a small number of locally common and widespread special-status plants but would not impact the overall population of these species in the HCP area. This activity would impact a very small amount of habitat for special-status plants, and there are large areas of more suitable habitat elsewhere in the HCP area where these species occur. Therefore, impacts on special-status plants would be less than significant.

Limited Trail Riding area (CA-42). The limited trail riding area was previously planted and includes the silver dune lupine – mock heather scrub, silver dune lupine scrub, and mock heather scrub. It is a low-lying area and is near Oso Flaco Lake; an area that provides potentially suitable habitat for locally common and widespread special-status plant species and special-status plant species with a more limited distribution found in low lying scrub habitats. Special-status plants that may occur in the limited trail riding area include but are not limited to red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, coastal goosefoot, Blochman's leafy daisy, suffrutescent wallflower, southwestern spiny rush, dunedelion, crisp monardella, California spineflower, coastal woolly-heads, South Coast branching phacelia, Hickman's popcornflower, and Blochman's ragwort. There are no known listed plant occurrences and no suitable habitat for the covered plant species in the area, although it is within La Graciosa thistle critical habitat. Equipment use and worker foot traffic during construction of the trail could result in the injury or mortality of individual special-status plants. Construction activities could also result in mechanical or physical removal of vegetation and modification of the seed bank due to grading and/or excavation. Finally, construction activities and/or motorized vehicle traffic on the trail once it is operational could introduce invasive weeds to the area, which could outcompete special-status plant species. Consistent with SPRs, CRPR listed plants would be avoided if feasible. Small numbers of locally common and widespread special-status plants and their habitat could be removed or disturbed during construction and use of the trail, but the overall populations of these species in the HCP area would not be significantly impacted. The amount of special-status plant habitat that would be removed is very small relative to the overall size of similar suitable habitat areas throughout the HCP area. In addition, CDPR has an ongoing restoration program that increases and enhances similar habitat elsewhere in the HCP area, which would offset any habitat loss from this covered activity. CDPR also manages invasive species, which would minimize invasive plant impacts caused by the new trail. Therefore, impacts on special-status plants would be less than significant.

An increase in use of the Limited Trail Riding site could increase wind-blown sand that eventually covers special-status plant populations adjacent to the trail. The amount of wind-blown sand that would result from opening the trail riding site is unknown at this point and would depend on how much scrub is removed. The trail riding project would also be subject to additional environmental review, which may include measures to further reduce and/or mitigate

impacts to special-status plant species. Therefore, impacts on special-status plants would be less than significant.

Replacement of the Safety and Education Center (CA-43). The safety and education center would be constructed in the same area where it is currently located. No special-status plant species are known to occur at this location. As a result, no impact on special-status plants would occur.

Dust Control Activities – New Dust Control Activities (CA-44). New dust control activities may include installing track-out control at Pier Avenue, new backdune planting areas, and potentially planting supplemental vegetation within the 48-acre foredune and preserving vegetation within the Southern Exclosure. The new track-out control would be in a developed area (Figure 3-1 and Figure 6-1) and not within suitable habitat for special-status plants; no impact would occur. The location of new backdune planting areas is not determined but could overlap with suitable habitat for special-status plant species including Nuttall's milkvetch, Monterey Coast paintbrush, coastal goosefoot, Douglas' spineflower, La Graciosa thistle, dune larkspur, Blochman's leafy daisy, suffrutescent wallflower, southwestern spiny rush, Kellog's horkelia, fuzzy prickly phlox, dunedelion, crisp monardella, San Luis Obispo monardella, California spineflower, coastal woolly-heads, South Coast branching phacelia, Hickman's popcornflower, and Blochman's ragwort. Direct effects on special-status plant species could include trampling or removal during work activities. Indirect effects could include habitat alteration (i.e., changing species composition as a result of altered wind, sand transport, moisture content, etc.). In general, dust control activities occur in open sand between vegetation patches and, the potential magnitude of impacts on special-status plants is lowest when dust control activities take place in open sand habitat because these areas support little to no dune vegetation or habitat for special-status plant species. As program activities approach the edge of vegetation islands and other vegetated areas, the potential to impact special-status plants increases. New dust control activities would avoid known occurrences of covered plants. Consistent with SPRs, CRPR listed plants would be avoided if feasible. Small numbers of locally common and widespread special-status plants and their habitat could be removed or disturbed during dust control activities, but the overall impacts on populations of these species in the HCP area are expected to be minimized. Overall, planting or preserving native dune vegetation for dust control activities may benefit special-status plants by providing additional native vegetation areas, which are suitable habitat for many special-status plant species. Therefore, effects on special-status plants are expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). Deconstruction and installation of a replacement boardwalk have the potential to directly and indirectly affect special-status plant species that occur in low-lying lake and wetland areas. Project activities such as dredging, pile driving, dewatering, site access, and staging could have both direct and indirect impacts on special-status plants that might occur within the impacted project area, including but not limited to marsh sandwort[42], La Graciosa thistle, Gamble's watercress, southwestern spiny rush, and South Coast branching phacelia. Project activities may affect these plants through direct disturbance of vegetation, modification or destruction of habitat, or through damage to underground root structures. Equipment use and worker foot traffic may result in the injury or mortality of individual listed plants. Excavation activities may result in the mechanical or physical removal of vegetation and modification of the seed bank due to grading or disturbance.

[42] Note that there would be no cumulative impacts to marsh sandwort or Gambel's watercress because the proposed project would not impact them.

To minimize these impacts, prior to any replacement activities, botanical surveys would be conducted in the area, and any state or federally listed plants would be flagged and protected from disturbance; consistent with SPRs, other special-status plants would also be avoided if feasible. Boardwalk replacement would also be subject to additional environmental review, which may include measures to further reduce or mitigate impacts to special-status plant species. Therefore, potential impacts on special-status plant species from boardwalk replacement would be less than significant.

Project activities in water may also affect aquatic special-status plants indirectly through temporary increases in turbidity and decreases in water quality from dredging, pile driving, as well as from temporary fills such as cofferdams or access ramps. Project activities could also cause an increase in invasive plant cover. Invasive plants degrade habitat quality for native plants and animals by altering vegetative structure and/or outcompeting native plants. However, CDPR actively removes invasive plants from the HCP area as part of the invasive plant and animal control activity (CA-17). In addition, any increases in turbidity or decreases in water quality would be temporary and relatively short in duration, lasting only during any work within open water. As a result, indirect impacts to special-status plants from boardwalk replacement would be less than significant.

Special Projects (CA-49). Installation, operation, and maintenance of new facilities have potential to directly or indirectly affect special-status plant species. Facilities could be installed on open sand, adjacent to vegetation islands, and/or in backdunes; therefore, special-status plants throughout the HCP area could be impacted, including, but not limited to red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, coastal goosefoot, Douglas' spineflower, surf thistle, La Graciosa thistle, dune larkspur, beach spectaclepod, Blochman's leaf daisy, suffrutescent wallflower, Kellog's horkelia, southwestern spiny rush, fuzzy prickly phlox, dunedelion, crisp monardella, San Luis Obispo monardella, California spineflower, coastal woolly-heads, South Coast branching phacelia, Hickman's popcornflower, and Blochman's ragwort. Equipment use and worker foot traffic during construction of a special project could result in the injury or mortality of individual special-status plants. Construction activities could also result in mechanical or physical removal of vegetation and modification of the seed bank due to grading and/or excavation. Finally, construction activities could introduce invasive weeds to the area, which could outcompete special-status plant species. CDPR, however, has the flexibility to install special project facilities in locations and in a manner that avoids negatively impacting native vegetation communities and/or special-status plant habitat. In addition, as part of SPRs, prior to the start of any special project installation in suitable habitat for special-status plant species as determined by a CDPR-approved biologist, surveys for special-status plant species would be conducted throughout the proposed special project area. Any state or federally listed plants encountered would be marked on a map, flagged, or fenced, and avoided; other special-status plants would also be avoided if feasible. Special projects could result in the removal of a small number of locally common and widespread special-status plants but would not impact the overall population of these species in the HCP area. Special projects would occur mostly in marginal habitat for special-status plants, and there are large areas of more suitable habitat elsewhere in the HCP area where these species occur. Therefore, effects on special-status plant species would be less than significant.

Special projects may also result in the permanent loss of up to 35 acres of potential surf thistle habitat, La Graciosa thistle habitat, beach spectaclepod habitat and/or other special-status plant species habitat. CDPR, however, has the flexibility to install special project facilities in locations and in a manner that avoids negatively impacting native vegetation communities and/or special-

status plant habitat. Therefore, effects on special-status plant species habitat would be less than significant. Specific impacts to La Graciosa thistle critical habitat are discussed below in section 6.4.2.

Other CDPR Projects

The Park Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, New North Beach Entrance Station, and Le Sage Drive Bridge Replacement would not occur within suitable special-status plant habitat. Habitats adjacent to the Grand Avenue and Pier Avenue Entrance Stations and Lifeguard Towers could support locally common and widespread special-status plants, although no plant habitat or known occurrences are present in the project areas. This includes red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, suffrutescent wallflower, southwestern spiny rush, dunedelion, California spineflower, Hickman's popcornflower, and Blochman's ragwort. Construction activities could cause damage or cause mortality and degrade and/or remove suitable adjacent habitat. However, with implementation of SPRs, this impact would be less than significant. These projects may also have project specific environmental review that may include additional measures to protect special-status plants.

Local Agencies

Dana Reserve Specific Plan. The Dana Reserve Specific Plan area has no suitable habitat for or known occurrences of red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, coastal goosefoot, Douglas' spineflower, surf thistle, La Graciosa thistle, duke larkspur, paniculate tarplant, beach spectaclepod, Blochman's leafy daisy, suffrutescent wallflower, Southwestern spiny rush, Kellog's horkelia, blushing layia, fuzzy prickly phlox, dunedelion, crisp monardella, San Luis Obispo monardella, coastal woolly-threads, South Coast branching phacelia, Hickman's popcornflower, and Blochman's ragwort. California spineflower and sand almond are known to occur in the Specific Plan area, and the Specific Plan EIR found that there would be significant and unavoidable impacts on these species from implementation of the Specific Plan (SWCA Environmental Consultants 2022). However, the proposed new HCP covered activities are unlikely to impact California spineflower or sand almond and any potential impacts on these species from the proposed HCP activities would be less than significant. Therefore, the project would not substantially contribute to this significant and unavoidable impact of the Specific Plan.

Phillips 66 Santa Maria Refinery Demolition and Remediation. Nipomo Mesa lupine, Blochman's leafy daisy, dune larkspur, Blochman's ragwort, California spineflower, sand almond, and Nuttall's (ocean bluff) milk-vetch, all species that occur within the HCP area, were found during botanical surveys in several locations within the Phillips 66 Santa Maria Refinery project area. In general, most of the vegetated areas within the project site would not require ground disturbance. However, approximately 26.5 acres of vegetated areas within the project site were identified as potentially containing historical debris or materials that may require remediation. Under a worst-case scenario, where all areas identified require remediation, project activities could potentially impact up to 26.5 acres of suitable habitat for Nipomo Mesa lupine and CRPR 1-4 species. In total, remediation activities overlap with 0.72 acres of occupied Nipomo Mesa lupine habitat, one occurrence of Blochman's leafy daisy, eight occurrences of Blochman's ragwort, one occurrence of California spineflower, and 14 occurrences of sand almond. An unknown amount of direct take of Nipomo Mesa lupine could also occur if dormant seeds are located in areas where core sampling is occurring, and core sampling occurs relatively close to existing or historical plant areas. Direct impacts could also occur to Nipomo Mesa lupine and CRPR 1-4 plant species if the asphalt emulsion coating is proposed for removal. Blochman's

leafy daisy, Blochman's ragwort, and sand almond were observed growing in areas with asphalt emulsion coating, suggesting that a seed bank still persists within the more disturbed areas of the refinery. Depending on how the asphalt emulsion coating is removed, direct impacts to the seed bank and to individual plants could occur. In addition to direct ground disturbance, demolition and remediation activities could have indirect disturbance to plant populations through the interruption of pollinators via dust and noise disturbance or the introduction of non-native species. If the ability for the Nipomo Mesa lupine plants to successfully outcross is diminished from demolition and remediation activities interrupting pollinator behavior, this could either reduce successful reproduction or further reduce genetic diversity by promoting selfing. Indirect impacts on Nipomo Mesa lupine could also occur from demolition and remediation activities through the alteration of microhabitat conditions for adjacent populations. Some existing roadways are adjacent to mapped occurrences of other special-status plant species, including Blochman's ragwort, sand almond, and Nuttall's milk-vetch. These occurrences could also be indirectly impacted by remediation activities. Mitigation Measures BIO 2-1 – 2-3 (Nipomo Mesa lupine) and BIO.3-1 – .3-4 (CRPR 1-4 plants) were included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that special-status plants would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. Two varietals of wedgeleaf horkelia [mesa horkelia (*Horkelia cuneata var. puberula*) and Kellogg's horkelia] were identified as potentially occurring within the sites affected by the proposed Specific Plan Amendment. Of these, only Kellog's horkelia could be impacted by the proposed project. Mitigation Measure 4.4-1a of the Specific Plan was amended to reduce potential impacts on wedgeleaf horkelia to less than significant levels (SWCA Environmental Consultants 2022).

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan activities would occur in open sand or sparsely vegetated foredunes where special-status plants are less likely to occur. However, some locally common special-status plants that occur in foredune or aquatic areas may occur in areas within or near Plan activities. These include red sand verbena, Blochman's leafy daisy, suffrutescent wallflower, southwestern spiny rush, dunedelion, crisp monardella, and Blochman's ragwort. Plan activities are also near La Graciosa thistle critical habitat and adjacent to areas mapped as habitat for surf thistle and beach spectaclepod, although known occurrences of these species are at least 2 miles south of this area. The Plan also includes a pre-activity survey for special-status plants and avoidance and minimization measures preparation in coordination with resources agencies if any special-status plants are found (ESA | PWA 2013).[43]

Arroyo Grande Creek Channel Waterway Management Plan. Impacts to special-status plants were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). Special-status plants were not observed during floristic survey and were not expected to occur within the project area; however, some suitable habitat for marsh sandwort, Gambel's watercress, and three CRPR listed plant species is present in the project area. The proposed project would not impact these special-status plant species.

[43] CDPR does not facilitate or propose mechanical or other artificial breaching of the sandbar, which can pose a risk to special-status species. Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

Conclusion

As described above, with the exception of the Dana Reserve Specific Plan, none of the future projects is expected to have a significant impact on special-status plants, although some potential future projects may be subject to additional environmental review. The Dana Reserve Specific Plan could adversely impact California spineflower and sand almond. However, the proposed new covered activities are unlikely to impact these plant species. Any potential impact on these species from new proposed activities would be less than significant and would not substantially contribute to this significant impact. With implementation of applicable AMMs and SPRs, impacts on special-status plants from the proposed new activities do not contribute to cumulatively significant impacts on special-status plant species even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on special-status plants. Cumulative project impacts on special-status plants would be ***less than significant***.

6.4.2 Sensitive Habitats

6.4.2.1 HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b). SNPL adult banding would occur on foot in open sand areas and would not impact sensitive habitats.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. The Southern Exclosure includes a CDFW sensitive natural community (dune mat), SNPL critical habitat, and ESHA (intertidal zone, sand dunes, and habitat that supports threatened and endangered species). Habitat manipulation in the Southern Exclosure is intended to benefit SNPL and improve the quality of SNPL critical habitat by removing topographical features and vegetation that have established since the Southern Exclosure was closed year-round starting in 2020. Observations in the HCP area indicate that once a foredune system creates significant topographic relief and dense vegetation, it is less productive for nesting SNPL and CLTE (CDPR 2023). Habitat manipulation in the Southern Exclosure would restore the more open habitat favored by nesting SNPL, benefiting SNPL critical habitat. However, habitat manipulation in the Southern Exclosure could result in the removal of some areas of dune mat. This sensitive natural community is locally common and would likely re-establish in suitable foredune habitats after habitat manipulation is completed. Habitat manipulation would have mixed effects on ESHA: the intertidal zone is not expected to impacted, the habitat manipulation could prevent or halt the formation of sand dunes in the Southern Exclosure, and this activity would benefit habitat that supports threatened and endangered species, particularly nesting habitat for SNPL and CLTE. Habitat manipulation would occur in a relatively small area (portions of the 300-acre southern exclosure), compared to much larger areas of high quality foredune habitat within the HCP area and neighboring properties. Overall, potential impacts from habitat manipulation in the Southern Exclosure are expected to be less than significant and provide a net benefit to SNPL critical habitat and ESHA.

Listed Plant Management – Propagation and Outplanting (CA-15). Collecting listed plants for propagation and outplanting could result in short-term disturbance such as trampling to nearby sensitive habitats. However, this activity would benefit certain sensitive habitats including La Graciosa thistle critical habitat (by increasing occupied habitat areas) and ESHA (increasing habitat that supports threatened and endangered species). Overall, potential impacts from listed

plant propagation and outplanting on sensitive habitats would be less than significant and beneficial.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities would occur in non-native acacia, iceplant, and European beachgrass areas and are not expected to impact sensitive natural communities. The CalVTP area is not within SNPL or La Graciosa thistle critical habitat, although it may include ESHA (sand dunes). The general CalVTP area includes a portion of Pismo Creek that is designated as tidewater goby critical habitat, but CalVTP activities would occur within upland habitat and would not adversely affect tidewater goby habitat. CalVTP activities would benefit sensitive natural communities and ESHA by restoring native foredune and dune scrub habitat. Therefore, potential impacts would be less than significant and beneficial.

Cable Fence Maintenance – Replacement (CA-28). Replacement of the cable fence would occur within open sand areas within SNPL critical habitat and ESHA (intertidal zone, sand dunes, and habitat that supports threatened and endangered species). Replacement of the cable fence would occur in approximately the same location; therefore, there would be no new permanent impacts from this activity, and impacts to sensitive habitats would be less than significant.

Grover Beach Lodge and Conference Center (CA-38). The Grover Beach Lodge and Conference Center EIR identifies sensitive natural communities/ESHAs, including central coast willow riparian scrub, central dune scrub, northern coastal salt marsh, and wetlands, within the project area. Construction and use of the lodge and conference center could directly and indirectly affect sensitive natural communities/ESHAs in the project area by removing vegetation within these communities, creating erosion, and/or introducing non-native, invasive species. The Grover Beach Lodge and Conference Center EIR includes numerous measures and/or mitigation to reduce the impacts to sensitive natural communities/ESHAs. As a result, impacts to sensitive natural communities/ESHAs from the construction of the Grover Beach Lodge and Conference Center would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). Pismo Creek Estuary includes occupied tidewater goby critical habitat and ESHA (coastal streams and habitat that supports threatened and endangered species). The Pismo Creek Estuary seasonal floating bridge is expected to benefit tidewater goby critical habitat and ESHA by reducing effects from turbidity and the potential for tidewater goby individuals to be injured or killed by pedestrians crossing Pismo Creek Estuary. The seasonal bridge would be removed when the water level is low so that it would not impact the movement of tidewater goby or other aquatic wildlife. Therefore, the Pismo Creek Estuary seasonal floating bridge would have a less than significant and beneficial impact on sensitive habitat.

Limited Trail Riding (CA-42). The Limited Trail Riding site is an area that was planted with native vegetation for dune stabilization and is currently closed to motorized recreation. The trail system is still in the concept stage, and no specific design has been selected for implementation. For analysis purposes, the HCP and this EIR assume the design may include up to 2 miles of trail with basic amenities installed along the trail such as a picnic table or interpretive features. This trail development could remove or otherwise impact up to 5 acres of vegetation in the silver bush lupine – mock heather dune scrub, silver dune lupine scrub, and mock heather scrub, all of which are CDFW listed sensitive natural communities. It is also La Graciosa thistle critical habitat and may be considered ESHA due to sand dunes and the potential presence of special-status plants.

Use of equipment, vehicle traffic, and worker foot traffic during construction of the trail may directly or indirectly affect vegetation outside of the trail footprint, including activities that could result in altered growth or reduced seed set of vegetation, damage to underground root structures, or direct disturbance or modification of vegetation. Disturbance by project activities may cause an increase in invasive weed cover. Invasive plants degrade habitat quality for native plants by altering vegetative structure and often outcompeting native plants. CDPR would implement AMMs and SPRs during construction activities, as necessary, to reduce impacts. These measures could include fencing or flagging sensitive habitat areas for avoidance, pre-activity surveys, and avoidance for listed plants, fencing off adjacent areas, erosion control, and/or biological monitoring. Although the project could impact up to 5 acres of dune scrub, including some individual locally common and widespread special-status plants as well as designated La Graciosa thistle critical habitat, it would not impact the overall health of the habitat in the HCP area, which is protected and managed. Establishing a trail in the limited trail riding area could increase wind-blown sand that eventually covers native vegetation adjacent to the trail. The amount of wind-blown sand that would result from opening the site is unknown at this point and would depend on how much scrub is removed. The trail riding project would be subject to additional environmental review, which may include measures to further reduce or mitigate impacts to sensitive habitats. As a result, potential impacts from limited trail riding on sensitive habitats would be less than significant.

Replacement of the Safety and Education Center (CA-43). Replacement of the safety and education center would occur within open sand areas within SNPL critical habitat and directly adjacent to Pavilion Hill which is critical habitat for La Graciosa thistle. This covered activity area may also be considered an ESHA Coastal Commission (sand dunes, and habitat that supports threatened and endangered species). Replacement of the safety and education center would occur in the same location; therefore, new permanent impacts from this activity would not occur.. As a result, permanent impacts on sensitive habitats would be less than significant.

Construction vehicles and workers associated with the replacement of the Safety and Education Center may inadvertently spread invasive plants (e.g., on tires or equipment) by moving seeds or plant segments if they move from one place with invasive species to a less impacted area. To reduce these impacts, CDPR would implement SPRs to avoid introducing invasive species during construction activities if activities could impact vegetation. CDPR would also implement any applicable SNPL and Covered Plant AMMs to avoid any construction-related impacts to SNPL, La Graciosa thistle, and their critical habitat. As a result, impacts to sensitive habitats would be less than significant.

Dust Control Activities – New Dust Control Activities (CA-44). New dust control activities may include installing track-out control at Pier Avenue, new backdune planting areas, and potentially planting supplemental vegetation within the 48-acre foredune and preserving vegetation within the Southern Exclosure. The new track-out control would be in a developed area that does not contain sensitive habitat and therefore no impacts to sensitive habitat would occur. Vegetation plantings could have a beneficial impact on ESHA by providing habitat for common and special-status plants and animals. The specific location of new backdune planting areas is not known at this time, but it is generally expected to occur primarily in unvegetated open sand areas and not within sensitive natural communities or aquatic habitats. It could occur in or near La Graciosa thistle critical habitat and/or ESHA. Any supplemental planting in the foredunes would occur in SNPL critical habitat (potential impacts are discussed in section 6.4.1.1 above) and ESHA. In general, the potential magnitude of impacts on sensitive vegetation communities is lowest when dust control activities take place in open sand habitat because these areas support little to no dune

vegetation, and any impacts on this habitat are likely minimal. As program activities approach the edge of vegetation islands and other vegetated areas, the potential to impact sensitive plant communities increases. Preserving vegetation in the foredune would be beneficial for sensitive dune mat habitat but could adversely impact SNPL critical habitat (discussed in more detail in section 6.4.1.1 above). However, CDPR would implement applicable AMMs and SPRs to avoid and minimize impacts to sensitive habitats. These measures could include fencing or flagging sensitive habitat areas for avoidance, pre-activity surveys and buffers for listed species in suitable habitat areas, fencing off adjacent areas, erosion control, and/or biological monitoring. As a result, impacts to sensitive habitats are expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). Oso Flaco Lake is in critical habitat for tidewater goby (unoccupied) and La Graciosa thistle (extirpated), and is also ESHA (freshwater lakes, wetlands, and habitat that supports threatened and endangered species). Arroyo willow thickets, a CDFW sensitive natural community, is present along the border of the lake. Project activities such as dredging, pile driving, and dewatering activities could have both direct and indirect impacts on sensitive habitats. Project activities may affect these habitats through direct disturbance of vegetation, modification or destruction of habitat, or through damage to underground root structures. Project activities in water may also affect aquatic special-status plants indirectly through temporary increases in turbidity and decreases in water quality from dredging, pile driving, as well as from temporary fills such as cofferdams or access ramps. Project activities could also cause an increase in invasive plant cover. Invasive plants degrade habitat quality for native plants and animals by altering vegetative structure and/or outcompeting native plants. However, potential impacts to sensitive habitats would be localized and temporary, and no permanent impacts to sensitive habitats are expected. CDPR actively removes invasive plants from the HCP area as part of the invasive plant and animal control activity (CA-17). In addition, CDPR would implement applicable AMMs and SPRs to avoid and minimize impacts to La Graciosa thistle and tidewater goby critical habitat and other sensitive habitats. As a result, indirect impacts to sensitive habitats from boardwalk replacement would be less than significant**.**

Impacts from maintenance of the portion of Oso Flaco boardwalk in upland habitat are described in Boardwalk/Other Pedestrian Maintenance (CA-31) in EIR Appendix D.

Special Projects (CA-49). Given that there is no defined project considered by CA-49, potential impacts cannot be specifically described or classified. Special projects are most likely to be required in areas where recreation use is high and, therefore, sensitive habitats are absent or are already degraded. Any special projects proposed would be evaluated during the project design phase by a qualified biologist to ensure that impacts to sensitive habitats are minimized. In addition, no more than 35 acres of habitat within the HCP area would be impacted during the permit term. As a result, direct impacts to sensitive habitats are expected to be minor.

Use of equipment, vehicle traffic, and worker foot traffic during construction of a special project may directly or indirectly affect vegetation outside of project footprint, including activities that could result in altered growth or reduced seed set of vegetation, damage to underground root structures, or direct disturbance or modification of vegetation. Disturbance by project activities may cause an increase in invasive weed cover. Invasive plants degrade habitat quality for native plants by altering vegetative structure and often outcompeting native plants. Construction of special projects could also alter critical habitat and/or ESHA, if either is present within or near the project footprint. As part of AMMs and SPRs, CDPR would implement avoidance and minimization measures during construction activities, as necessary, to reduce impacts. These measures could include fencing or flagging sensitive habitat areas for avoidance, pre-activity

surveys and avoidance measures for listed or other special-status species, worker training, fencing off adjacent areas, erosion control, and/or biological monitoring. As a result, effects on sensitive natural communities would be less than significant.

6.4.2.2 Other CDPR Projects

The Park Corporation Yard Improvements do not occur within a sensitive habitat, although the Corporation Yard is adjacent to Meadow Creek, Oceano Lagoon, and riparian habitat. The New North Beach Entrance Station does not contain sensitive habitat but is near coastal wetlands. These projects would not directly impact sensitive habitats but could result in indirect impacts from construction dust or hazardous materials releases. The Oceano Campground Water and Electrical Service Improvements could impact a small amount of riparian habitat if avoidance is not feasible. The Grand Avenue and Pier Avenue Entrance Upgrades and Lifeguard Towers could impact central coast dune scrub if construction activities were to exceed the project boundaries. The Le Sage Drive Bridge Replacement could impact sensitive riparian habitat along Meadow Creek, although the project would comply with resource protection measures in any agency permits required for the project. With implementation of AMMs and SPRs, potential impacts to sensitive habitats would be less than significant. These projects may also have project specific environmental review that may include additional measures to protect sensitive habitats.

6.4.2.3 Local Agencies

Dana Reserve Specific Plan. The Dana Reserve Specific Plan would have significant and unavoidable impacts on two sensitive natural communities, Burton Mesa chaparral (*Arctostaphylos [purissima*, *rudis]* Special Stands) and the *Quercus agrifolia* / *Adenostoma fasciculatum* – (*Salvia mellifera*) association of the coast live oak woodland and forest alliance. Neither of these sensitive natural communities is present in the HCP area r. Likewise, sensitive natural communities, critical habitats, and ESHA present in the HCP area are not present in the Specific Plan area. However, off-site improvements that are part of the Specific Plan project could impact sensitive riparian and other aquatic habitat, and similar riparian and aquatic habitats are present in the HCP area. The Specific Plan EIR states that with implementation of EIR Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6, BIO/mm-11.1, and BIO/mm-16.1, impacts to riparian and other aquatic habitat areas would be less than significant (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation. Approximately 33.4 acres of silver dune lupine - mock heather scrub was mapped within the Phillips 66 Santa Maria Refinery project area and 33.67 acres within the 100-foot buffer area. This has been given a state rarity ranking of S3 and is considered a sensitive natural community by CDFW. In addition, there is the broader Central Dune Scrub sensitive natural community classification which includes the silver dune lupine - mock heather scrub described above and extends to the black sage scrub and California buckwheat scrub (which occurs in an existing restoration area). It was also determined that all the vegetation alliances mapped in the project area, except for the developed areas, meet the definition of ESHA and were thus classified as unmapped ESHA. Under a "worst-case" scenario, where all identified areas require remediation, project activities could potentially impact up to 14.4 acres of Coastal Dune Scrub, of which 7.3 acres of that consists of silver dune lupine - mock heather scrub, and 26.5 acres of unmapped ESHA. In addition to direct ground disturbance, demolition and remediation activities could have indirect disturbance to Coastal Dune Scrub, silver dune lupine - mock heather scrub, and ESHA through the interruption of pollinators via dust and noise disturbance or the introduction of non-native species. Mitigation

Measures BIO 11-1 and 12-1 were included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that sensitive habitats would not be significantly impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Addendum to the 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts on Central Coastal Scrub, a sensitive natural community (SWCA Environmental Consultants 2022). With mitigation measures, impacts to sensitive habitats were determined to be less than significant.

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan activities would occur in open sand or sparsely vegetated foredunes; however, some areas of dune mat (*Abronia latifolia – Ambrosia chamissonis*), a sensitive natural community, occur in the Plan area. Plan activities would also occur within SNPL critical habitat and within or near La Graciosa thistle critical habitat. The Plan area also includes ESHA (coastal streams, wetlands, sand dunes, and habitat that supports threatened and endangered species). However, Plan activities would be temporary, localized, and short in duration and would not include any permanent impacts to sensitive habitats. The Plan also includes a pre-activity survey for special-status plants and nesting birds and avoidance measures in coordination with resources agencies if any special-status plants or nesting birds are found.[44]

Arroyo Grande Creek Channel Waterway Management Plan. Sensitive natural communities/ESHAs in the Arroyo Grande Creek Channel WMP project area consist of jurisdictional waters. Therefore, impacts on sensitive natural communities and ESHAs in the project area are discussed below in EIR section 6.4.3.

6.4.2.4 Conclusion

As described above, with the exception of the Dana Reserve Specific Plan, none of the future projects is expected to have a significant impact on sensitive habitats, although some potential future projects may be subject to additional environmental review. The Dana Reserve Specific Plan could adversely impact the Burton Mesa chaparral and the *Quercus agrifolia* / *Adenostoma fasciculatum* – (*Salvia mellifera*) association of the coast live oak woodland and forest alliance. However, neither of these sensitive natural communities is present in the HCP area and thus proposed activities would not contribute to this significant impact. With implementation of applicable AMMs and SPRs, impacts on sensitive habitats from the proposed new activities do not contribute to cumulatively significant impacts on sensitive habitats even when combined with related impacts from future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on sensitive habitats. Cumulative project impacts on sensitive habitats would be ***less than significant***.

[44] Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

6.4.3 Jurisdictional Waters

6.4.3.1 HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b). SNPL adult banding would occur on foot in open sand areas and would have no impact on state or federal jurisdictional waters.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. Habitat manipulation in the Southern Exclosure would occur in upland habitat and would have no impact on state or federal jurisdictional waters.

Listed Plant Management – Propagation and Outplanting (CA-15). Propagation and outplanting of listed plants could occur in state or federal jurisdictional waters or habitats for aquatic or wetland listed plant species, including marsh sandwort, La Graciosa thistle, and Gambel's water cress. The potential impacts to jurisdictional waters/habitats would be short-term and minor and could include a temporary increase in turbidity or trampling aquatic or wetland vegetation. These activities would be undertaken by qualified biologists familiar with the listed plant species, and CDPR would implement applicable AMMs to avoid and minimize impacts on jurisdictional waters and habitats. All potential impacts to state or federal jurisdictional waters from listed plant propagation and outplanting would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities would occur in upland areas with non-native vegetation and would have no impact on state or federal jurisdictional waters.

Cable Fence Maintenance – Replacement (CA-28). Most of the cable fence occurs in an upland area, but a portion of the fence extends below the ordinary high water mark (mean high tide) and thus into state tidal lands and federal jurisdictional waters. The cable fence would be replaced in kind and in the same location as the existing fence and therefore would not increase permanent impacts to jurisdictional waters. Temporary construction related impacts would be avoided or minimized by applicable AMMs and SPRs. CDPR would also obtain any permits needed for the fence replacement and would follow permit conditions. Therefore, potential impacts to state and federal jurisdictional waters from cable fence replacement would be less than significant.

Grover Beach Lodge and Conference Center (CA-38). The impact on jurisdictional waters from the Grover Beach Lodge and Conference Center were evaluated as part of the Grover Beach Lodge and Conference Center EIR (SWCA Environmental Consultants 2012). The project includes construction of bioswales just outside the edge of riparian vegetation. The EIR includes measures to reduce impacts to Meadow Creek from the bioswales. In addition, the bioswales would ultimately improve water quality on the project site. As a result, impacts to state and federal jurisdictional waters would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The Pismo Creek Estuary is under the jurisdiction of the USACE, RWQCB, and CDFW, and the seasonal bridge may require permits from these agencies to install. The Pismo Creek Estuary seasonal bridge is expected to benefit jurisdictional waters overall by reducing erosion and providing an alternative to walking through the mouth of the creek for pedestrians wishing to walk up the coast. CDPR would implement applicable AMMs and SPRs when installing and removing the seasonal bridge to avoid and minimize impacts to jurisdictional waters. CDPR would also obtain any required permits and comply with permit conditions to protect water quality and sensitive biological resources. Therefore, potential impacts to state and federal jurisdictional waters from the seasonal floating bridge would be less than significant and beneficial overall.

Limited Trail Riding (CA-42); Replacement of the Safety and Education Center (CA-43); Dust Control Activities (CA-44) – New Dust Control Activities. These activities would occur in upland areas and would have no impact on state or federal jurisdictional waters or habitats.

Oso Flaco Lake Boardwalk Replacement (CA-48). Oso Flaco Lake is under the jurisdiction of the USACE, RWQCB, and CDFW, and the boardwalk replacement would likely require permits from these agencies. It is assumed the boardwalk would be designed to avoid the loss of aquatic habitat, as feasible, and any change in the boardwalk layout would affect no more than 1.5 acres of aquatic habitat. Short-term impacts to jurisdictional waters could include temporary increases in turbidity and decreases in water quality from dredging, pile driving, as well as from temporary fills such as cofferdams or access ramps. Project activities could also cause an increase in invasive plant cover. Invasive plants degrade habitat quality for native plants and animals by altering vegetative structure and/or outcompeting native plants. CDPR actively removes invasive plants from the HCP area as part of the invasive plant and animal control activity (CA-17). CDPR would implement applicable AMMs and SPRs address possible impacts on jurisdictional waters. CDPR would also obtain any required permits and comply with permit conditions to protect water quality and sensitive biological resources. Therefore, potential impacts to state and federal jurisdictional waters from the Oso Flaco Lake boardwalk replacement would be less than significant.

Special Projects (CA-49). Although it is unknown where in the HCP area the special projects would take place, it is assumed that they would be in upland areas, and there would be no impact on state or federal jurisdictional waters or habitats.

6.4.3.2 Other CDPR Projects

The Park Corporation Yard Improvements do not occur within jurisdictional waters, although the Corporation Yard is adjacent to Meadow Creek, Oceano Lagoon, and riparian habitat. The New North Beach Entrance Station does not contain jurisdictional waters but is near coastal wetlands. These projects would not directly impact state or federal jurisdictional waters but could result in indirect impacts from construction dust or hazardous materials releases. The Oceano Campground Water and Electrical Service Improvements project area contains state jurisdictional riparian vegetation that could be impacted if avoidance is not feasible. The New North Beach Entrance Station project area is within disturbed/developed land; however, adjacent state and/or federal wetland vegetation could be impacted if encroached upon by construction activities. The Le Sage Drive Bridge Replacement would replace a bridge over Meadow Creek, which is a state and federal jurisdictional water. However, as part of SPRs, CDPR would avoid impacts to wetlands and/or wetland vegetation alliances, waters of the U.S., and wetlands as defined by the Coastal Commission and USFWS to the extent feasible and exclude these areas from all development and construction activities with a minimum of 25-foot buffers (or less depending on site constraints), which may include flagging and/or fencing. SPRs include implementing buffers around wetlands for all construction activities. Buffers vary from 25 feet for small wetlands, to over 100 feet from major areas. Additional SPRs to protect jurisdictional waters could include preventing spread of invasive species, worker environmental training, and/or biological monitoring. Where wetlands or other jurisdictional waters cannot be avoided, CDPR would conduct a jurisdictional delineation to determine the exact acreage that would be impacted by project activities. CDPR would obtain any necessary permits, including a CWA Section 404 permit from the USACE, CWA Section 401 Water Quality Certification from the RWQCB, and a Lake and Streambed Alteration Agreement from CDFW for any project that would require such permits, and would comply with all permit conditions during project

implementation, including any specification related to wetland/water of the U.S. replacement, as applicable. As a result, effects on wetlands/wetland alliances and other jurisdictional waters would be less than significant.

6.4.3.3 Local Agencies

Dana Reserve Specific Plan. Although there are no jurisdictional waters in the Dana Reserve Specific Plan area, off-site improvements that are part of the Specific Plan project could impact Nipomo Creek and its tributaries. Improvements to the water supply system would require work either over or under Nipomo Creek and at three additional creek crossings on tributaries to Nipomo Creek. The updated pipeline would be installed underneath the creeks using the method of horizontal directional drilling. Even though work directly in the channels would be avoided using this method, temporary or indirect impacts to aquatic resources may result from horizontal directional drilling operations without proper mitigation measures. These could include impacts from heavy equipment operation, temporary materials staging, and, in the worst-case scenario, contamination of the streambed in the event of a "frac-out." Therefore, the construction of the proposed improvements to the water pipeline could result in direct adverse impacts to areas under jurisdiction of regulatory agencies, such as the USACE, CDFW, and RWQCB. The Specific Plan EIR states that with implementation of EIR Mitigation Measures BIO/mm-17.1 through BIO/mm-17.3, impacts to aquatic habitats would be less than significant (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation. No state or federally protected wetlands were identified within the Phillips 66 Santa Maria Refinery project area (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Addendum to 1998 Final EIR and 2001 Final Supplemental EIR for Monarch Dunes Specific Plan states that the 1998 FEIR determined that buildout of Monarch Dunes Village would result in impacts to Central Coastal Scrub, eucalyptus stands, monarch butterfly, silvery legless lizard, loggerhead shrike, American badgers, and nesting raptors (SWCA Environmental Consultants 2022). Impacts to jurisdictional waters are not mentioned, therefore it is assumed that jurisdictional waters would not be impacted by this project. The existing golf course ponds and the wastewater treatment pond in the Specific Plan area are mapped by the NWI as freshwater ponds (USFWS 2025b); however, the Monarch Dunes Specific Plan Land Use Concept Plan shows that existing golf course ponds and wastewater treatment plant would remain after the Specific Plan is fully implemented (San Luis Obispo County 2023).

Interim Sandbar Management Plan. The Arroyo Grande lagoon and Meadow Creek lagoon are waters of the U.S./State under the jurisdiction of the USACE, RWQCB, and CDFW. The Interim Sandbar Management Plan states in section 5.2 that if conditions requiring sandbar management occur, then the relevant regulatory agencies will be notified prior to initiation of sandbar management activities. In addition, the proposed sandbar management activities would be localized, infrequent, and short in duration and would not permanently impact jurisdictional waters.

Arroyo Grande Creek Channel Waterway Management Plan. The Arroyo Grande Creek Channel is under the jurisdiction of USACE, RWQCB, and CDFW and requires permits from these agencies. Project activities could result in temporary impacts to jurisdictional waters and habitats, including an increase in turbidity, removal or disturbance of vegetation, or spread of invasive species. However, the WMP would be implemented to improve habitat in Arroyo

Grande Creek and would have no permanent impact on jurisdictional waters or habitats. In addition, the project would comply with permit conditions to protect water quality and sensitive biological resources.

6.4.3.4 Conclusion

Although some potential future projects may be subject to additional environmental review, as described above, none of the future projects is expected to have a significant impact on jurisdictional waters and habitats. Given the implementation of AMMs and SPRs, impacts on jurisdictional waters and habitats from the proposed new activities do not contribute to cumulatively significant impacts on jurisdictional waters and habitats even when combined with related impacts from potential future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on jurisdictional waters and habitats. Cumulative project impacts on jurisdictional waters and habitats would be ***less than significant***.

6.4.4 Wildlife Movement and Nursery Sites

6.4.4.1 HCP Potential Future Covered Activities

SNPL Adult Banding (CA-12b). SNPL adult banding would occur on foot in open sand areas. This activity could deter wildlife from moving through the area during the period of disturbance; however, it would not create an impediment to wildlife movement or affect wildlife nursery sites. As a result, the impact is less than significant.

SNPL/CLTE Management (CA-12b) – SNPL Habitat Manipulation in Southern Exclosure. Habitat manipulation in the Southern Exclosure would likely use heavy equipment and could temporarily deter wildlife from moving through the work area. However, it would occur outside the nesting bird season and therefore would not impact nursery sites or impede the movement of nesting birds. Parts of the Southern Exclosure are near the open riding area, which likely presents an existing barrier to wildlife movement through the surrounding area. All impacts would be temporary, and no physical barriers to wildlife movement would be installed. Habitat manipulation in the Southern Exclosure would likely benefit SNPL and CLTE nursery sites by improving nesting habitat. Therefore, habitat manipulation in the Southern Exclosure would have a less than significant impact on wildlife movement or nursery sites.

Listed Plant Management – Propagation and Outplanting (CA-15). Propagation and outplanting activities would not have the potential to substantially interfere with the movement of native fish or wildlife species or established wildlife corridors or impede the use of native wildlife nursery sites. As a result, impacts would be less than significant.

Habitat Restoration Program (CA-16) – CalVTP. CalVTP activities could temporarily deter wildlife from moving through the work area during vegetation removal and/or prescribed fire but would not create any permanent barriers to wildlife movement. CalVTP activities would occur in upland areas of non-native vegetation that are less likely to support wildlife nursery sites. CalVTP would likely benefit wildlife movement and nursery sites in the long term by restoring native foredune and dune scrub habitat. All potential impacts to wildlife movement and nursery sites from CalVTP activities would be less than significant and beneficial overall.

Cable Fence Maintenance – Replacement (CA-28). The cable fence does not block wildlife movement and is not located in a nursery site. Replacement of the cable fence would have a temporary impact on wildlife since they may be deterred from moving through the area during

construction and maintenance activities. However, no barriers or impediments to wildlife movement would occur. As a result, the impact on wildlife movement or nursery sites would be less than significant.

Grover Beach Lodge and Conference Center (CA-38). The Grover Beach Lodge and Conference Center is not located in a nursery site. Construction of the Grover Beach Lodge would have a temporary impact on wildlife since they may be deterred from moving through the area during activities. In addition, the Grover Beach Lodge itself could block some common wildlife species from crossing through the area. However, the project area is already in an urban area and surrounded by other development. As a result, the impact on wildlife movement or nursery sites would be less than significant.

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The bridge could inhibit fish movement, especially during low flows when water levels in the estuary are low. However, the bridge would be designed to allow movement of all fish species, as well as an exchange of fresh and saltwater, by construction the interlocking pieces of the bridge with wide openings. In addition, if water levels are so low that the bridge is not allowing the free movement of fish, the bridge would be removed until there is sufficient water to allow the bridge to float. The bridge could benefit nursery sites for tidewater goby and other aquatic species by reducing turbidity and disturbance from park visitors crossing the estuary. As a result, impacts on wildlife movement or nursery sites associated with the floating bridge would be less than significant.

Limited Trail Riding area (CA-42). Trail development would enable riding in this area of the HCP that is presently closed to motorized recreation. Recreational use of the trail would create temporary human presence. As a result, wildlife could be deterred from moving through the area at times when recreation is high or during trail development. However, no barriers or impediments to wildlife movement would occur. This area is outside of SNPL and CLTE nursery sites and aquatic habitat that could be used as nursery sites for aquatic species. As a result, the impacts would be less than significant.

Replacement of the Safety and Education Center (CA-43). Although the replacement of the Safety and Education Center would occur within SNPL and/or CLTE nesting habitat, it would not occur in areas where SNPL and/or CLTE have been known to typically nest or raise chicks. As a result, this activity would not impede SNPL and CLTE nesting or chick rearing. The kiosk structure is open frame and does not block wildlife movement. It is not located in a nursery site. Maintenance, repairs, and replacement would have a temporary impact on wildlife since they may be deterred from moving through the area during activities. However, no barriers or impediments to wildlife movement would occur. As a result, the impact on wildlife movement or nursery sites would be less than significant.

Dust Control Activities (CA-44) – New Dust Control Activities. See the discussion in sections 6.4.1.1, 6.4.1.2, and 6.4.1.9 regarding the potential for adverse effects of new dust control activities on breeding SNPL, CLTE, and other migratory birds, respectively. As discussed, impacts on those species are expected to be minimized. In addition, dust control activities would not have the potential to substantially interfere with the movement of native fish or wildlife species or established wildlife corridors because activities such as installing vegetation, protective fencing, and temporary monitoring equipment would not represent a substantial barrier to wildlife migration or movement. Vegetation planting for dust control activities may benefit wildlife movement and some nursery sites by providing additional cover for movement and habitat for breeding for species of wildlife that prefer more cover. As a result, impacts are expected to be minimized.

Oso Flaco Lake Boardwalk Replacement (CA-48). Wildlife could be deterred from moving through the area during boardwalk replacement, and aquatic nursery sites in Oso Flaco Lake could be temporarily disturbed. Boardwalk replacement would be an in-kind replacement of the current structure. Although it is anticipated the replacement boardwalk would be located in roughly the same location, the layout and/or location of the new boardwalk might need to shift slightly to accommodate conditions at the time of replacement, such as changes in codes or other operational or design considerations. Replacing the entire boardwalk would cause temporary disturbance of aquatic habitat including substantial, but temporary, turbidity and could include pile driving and a boat or floating platform to ferry supplies. However, no new wildlife barriers would be constructed, and no permanent impacts would occur. CDPR would implement AMMs and SPRs such as pre-activity surveys and avoidance measures to minimize impacts on nursery sites during construction. As a result, the impact would be less than significant.

Special Projects (CA-49). Special projects could result in temporary disruption of wildlife movement or nursery sites during project construction by deterring them from migrating through or breeding in the area. Special projects are anticipated to be small and would not create a permanent barrier to migration. Pre-activity for nesting birds or other wildlife nursery sites is part of CDPR AMMs and SPRs. As a result, impacts would be less than significant.

6.4.4.2 Other CDPR Projects

The other CDPR projects (Corporation Yard Improvements, Oceano Campground Water and Electrical Service Improvements, Grand Avenue and Pier Avenue Entrance Stations Upgrades and Lifeguard Towers, New North Beach Entrance Station, and Le Sage Bridge Replacement) are located in developed or open sand areas where no known nursery sites are present and wildlife movement opportunities are limited. In addition, these projects would not result in a new permanent wildlife barrier or impacts on nursery sites. As a result, effects on wildlife movement and nursery sites would be less than significant.

6.4.4.3 Local Agencies

Dana Reserve Specific Plan. The Dana Reserve Specific Plan area is surrounded by urban development, and the Specific Plan EIR found that the project would have no impact on wildlife movement with implementation of the best management practices outlined in EIR Mitigation Measures BIO/mm-1.1 through BIO/mm-1.6 (SWCA Environmental Consultants 2022).

Phillips 66 Santa Maria Refinery Demolition and Remediation. Demolition and remediation activities would occur on developed or previously disturbed lands. No known native wildlife nursery sites or wildlife corridors occur within these areas. Demolition and remediation activities would not interfere with established native resident or migratory wildlife corridors or nursery sites. However, suitable habitat for 16 special-status animal taxa (plus nesting birds and roosting bats) was observed in the Phillips 66 Santa Maria Refinery project area. Vegetation clearance and other Project activities would occur in portions of observed suitable habitats, and noise from activities may temporarily deter wildlife from the project area, resulting in temporary impacts on the movement of wildlife species. Mitigation Measures BIO 4-1, BIO.5-1, BIO.6-1, BIO.7-1, BIO.8-1, BIO.8-2, BIO.9-1, and BIO.10-1 were included in the Phillips 66 Santa Maria Refinery Demolition and Remediation Project EIR to ensure that wildlife movement and nursery sites would not be impacted during demolition and remediation activities (San Luis Obispo County 2024).

Monarch Dunes Specific Plan. The Monarch Dunes Specific Plan could have short-term, less-than-significant impacts on wildlife movement and nursery sites during construction activities.

Interim Sandbar Management Plan. The activities proposed in the Interim Sandbar Management Plan would occur in and near Arroyo Grande Lagoon, which is a nursery site and movement corridor for tidewater goby and other aquatic species. The open sand habitat where sandbar management would occur could also provide nesting habitat to SNPL and CLTE, although these species have rarely nested in this area in the past. The Plan area is surrounded by open space that provides movement opportunities for terrestrial wildlife. Plan activities would be localized, infrequent, and short in duration. In addition, the Plan also includes a pre-activity survey for nesting birds and avoidance measures in coordination with CDPR if any nests are found. The Plan notes it is possible that to develop a more permanent (permitted) sandbar management plan, resource agencies will require a formal protection/enhancement plan for tidewater goby, steelhead, and other estuarine fish.[45] Nevertheless, the rapid dewatering of Arroyo Grande Lagoon from a sandbar breach could have significant adverse impacts on a nursery site for tidewater goby and other aquatic species. However, proposed new covered activities would not impact Arroyo Grande Lagoon or contribute to this potentially significant impact on nursery sites.

Arroyo Grande Creek Channel Waterway Management Plan. Arroyo Grande Creek Channel WMP actions could result in temporary disruption of wildlife movement or nursery sites by deterring them from migrating through or breeding in the area. However, the WMP would be implemented to improve habitat in Arroyo Grande Creek and would not create a permanent barrier to migration or impact on nursery sites.

6.4.4.4 Conclusion

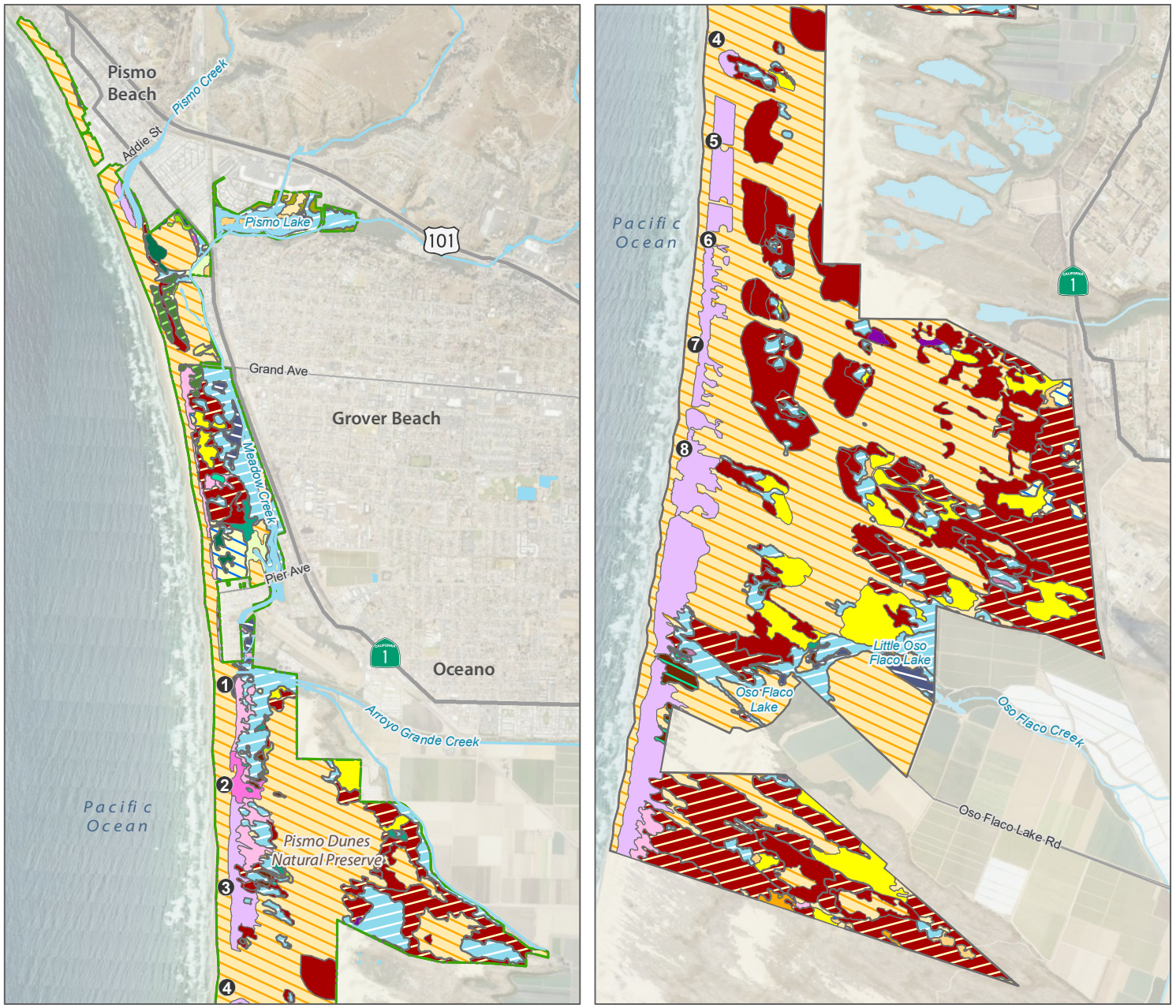
As described above, with the exception of the Interim Sandbar Management Plan, none of the future projects, is expected to have a significant impact on wildlife movement or nursery sites, although some potential future projects may be subject to additional environmental review. The Interim Sandbar Management Plan could adversely impact nursery sites of tidewater goby or other aquatic species due to rapid dewatering of Arroyo Grande Lagoon. However, the proposed new covered activities would not impact Arroyo Grande Lagoon or contribute to this potentially significant impact on nursery sites. Given the implementation of AMMs included in the HCP and CDPR's SPRs, impacts on wildlife movement and nursery sites from the proposed new activities do not contribute to cumulatively significant impacts on wildlife movement and nursery sites even when combined with related impacts from future HCP covered activities, other CDPR projects, and local agency projects. As a result, the new proposed activities would not have a significant cumulative impact on wildlife movement. Cumulative project impacts on wildlife movement and nursery sites would be ***less than significant***.

6.5 MITIGATION MEASURES

No significant impacts have been identified for the project based on the analysis contained in EIR sections 6.3 and 6.4 above, which includes the OHMVR Division's implementation of the

[45]CDPR does not facilitate or propose mechanical or other artificial breaching of the sandbar, which can pose a risk to listed species. Any agency proposing to breach the sandbar for flood abatement or other purposes would be responsible for obtaining necessary permits.

AMMs described in EIR section 6.3.2 and incorporated offsets. Overall, the AMMs and offsets have been successful at offsetting the impacts on all covered species from existing covered activities and allowing CDPR to contribute to covered species recoveries locally and range-wide. For example, the seasonal exclosure that is erected each breeding season to protect SNPL and CLTE has been successful at protecting breeding habitat for SNPL and CLTE and increasing reproductive success for these species. The ongoing predator management program is expected to be successful at offsetting impacts associated with a potential increase in predators in the HCP area. In addition, the habitat restoration efforts and fencing of the vegetation islands appears to be successful at offsetting impacts to listed plant species. The effectiveness of these existing AMMs in reducing impacts on special-status species has been demonstrated. The existing AMMs along with new proposed AMMs and SPRs implemented for non-HCP covered special-status species would mitigate the effects of new proposed covered activities. As a result, additional mitigation measures are not necessary, and no mitigation is required.



Vegetation and Landcover Types

Herblands and Grasslands

- *Abronia latifolia – Ambrosia chamissonis* Alliance
- *Ammophila arenaria* Semi-Natural Alliance
- *Cakile (edentula, maritima)* Provisional Semi-Natural Alliance
- Californian Annual Grassland and Forb Meadow
- Californian Ruderal Grassland, Meadow, and Scrub
- *Corethrogyne filaginifolia – Eriogonum (elongatum, nudum)* Alliance
- *Juncus lescurii* Association
- *Mesembryanthemum* spp. – *Carpobrotus* spp. Semi-Natural Alliance
- *Sarcocornia pacifica (Salicornia depressa)* Alliance
- *Schoenoplectus (acutus, californicus)* Alliance
- *Typha (angustifolia, domingensis, latifolia)* Alliance

Shrublands

- *Acacia (cyclops, dealbata)* Association
- *Baccharis pilularis* Alliance
- *Coreopsis gigantea* Alliance
- *Ericameria ericoides* Association
- *Frangula californica* ssp. *californica* Provisional Association
- *Lupinus chamissonis* Association
- *Lupinus chamissonis – Ericameria ericoides* Alliance
- *Rubus spectabilis – Morella californica* Alliance
- *Rubus ursinus* Association
- *Salix lasiolepis* Alliance
- *Toxicodendron diversilobum* Alliance

Forest and Woodlands

- *Eucalyptus (globulus, camaldulensis)* Semi-Natural Association
- *Hesperocyparis (pigmaea, abramsiana, macrocarpa, goveniana)* Alliance
- *Hesperocyparis macrocarpa – Pinus radiata* Semi-Natural Alliance
- *Pinus muricata – Pinus radiata* Alliance
- *Populus trichocarpa* Alliance
- *Quercus agrifolia* Alliance

Other Landcover

- Sand
- Agriculture
- Urban

Base Map Features

- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR 2024; MIG 2024

Figure 6-1 Vegetation Types in the HCP Area

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

Tidewater Goby Habitat

- Tidewater goby critical habitat
- Tidewater goby occupied habitat

Base Map Features

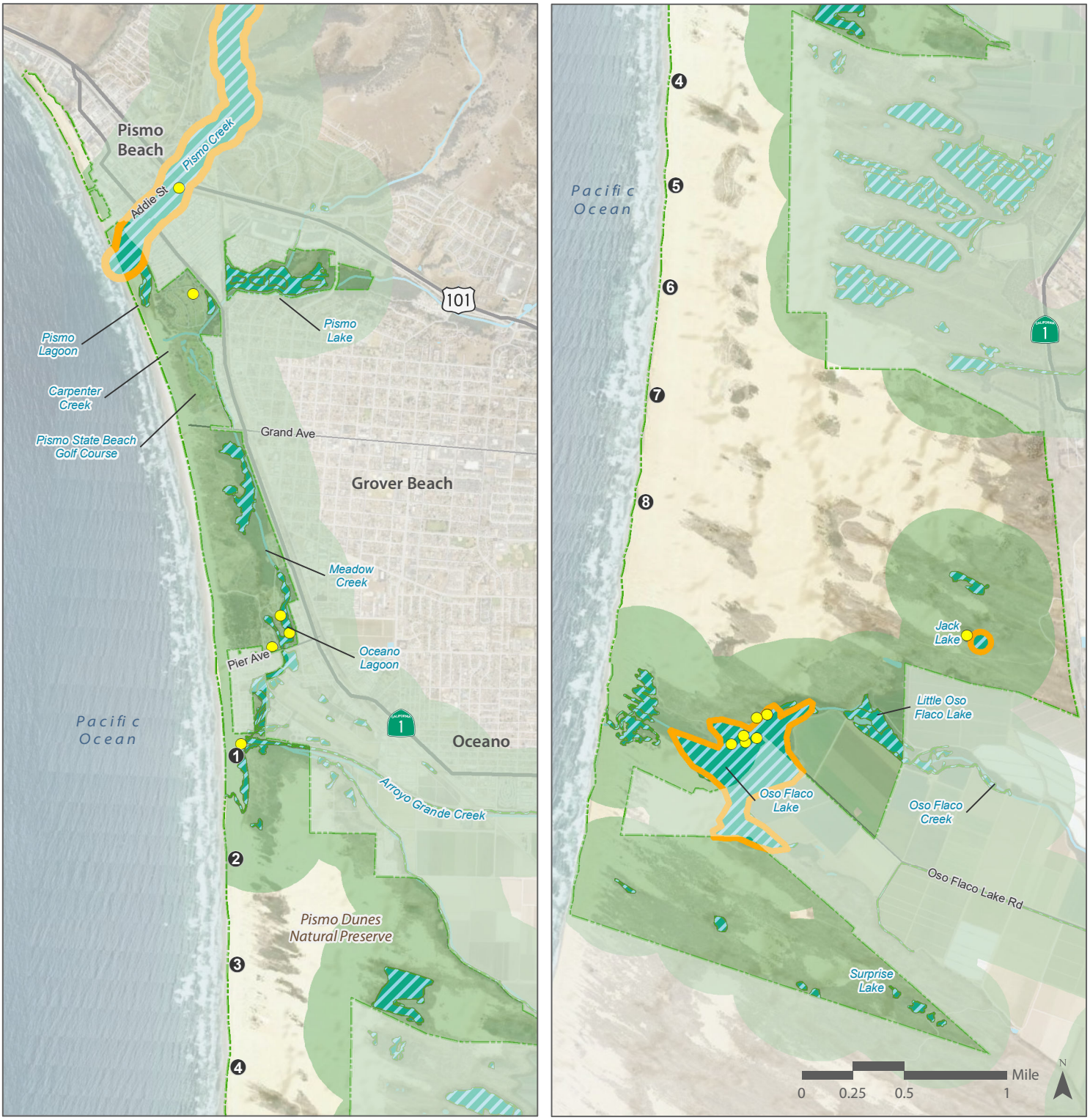
- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

MIG

May 2026
Source: USFWS 2024; CDPR 2024; MIG 2024

Figure 6-2 Tidewater Goby Habitat and Critical Habitat

CDPR, Oceano Dunes District Habitat Conservation Plan EIR



Southwestern Pond Turtle Habitat

- SWPT occurrences - iNaturalist (Research Grade and Verified) and CDPR incidental reports
- SWPT occurrences - CNDDB
- Potential SWPT aquatic habitat - USFWS National Wetland Inventory
- Potential SWPT breeding habitat - 500m distance from aquatic habitat

Base Map Features

- HCP covered lands
- Marker post
- Stream
- Highway
- Access road

Note: SWPT upland habitat is located throughout the HCP area wherever not mapped as potential aquatic or breeding habitat.

MIG

May 2026
Source: USFWS 2024; CDPR 2024; MIG 2024

Figure 6-3 Southwestern Pond Turtle Occurrences and Potential Habitat

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

California Red-legged Frog Habitat

- CRLF occurrence - survey data
- Potential CRLF breeding habitat - USFWS National Wetland Inventory
- CRLF recovery plan unit - core area 23

Base Map Features

- Marker post
- HCP covered lands
- Stream
- Highway
- Access road

Note: CRLF upland habitat is located throughout the HCP area wherever not mapped as potential aquatic or breeding habitat.

May 2026
Source: USFWS 2024; CDPR 2024; MIG 2024

Figurue 6-4 California Red-legged Frog Occurrences, Potential Habitat, and Recovery Plan Unit

Western Spadefoot Habitat

- WSF occurrence - CDPR
- Potential WSF breeding habitat - USFWS National Wetland Inventory

Base Map Features

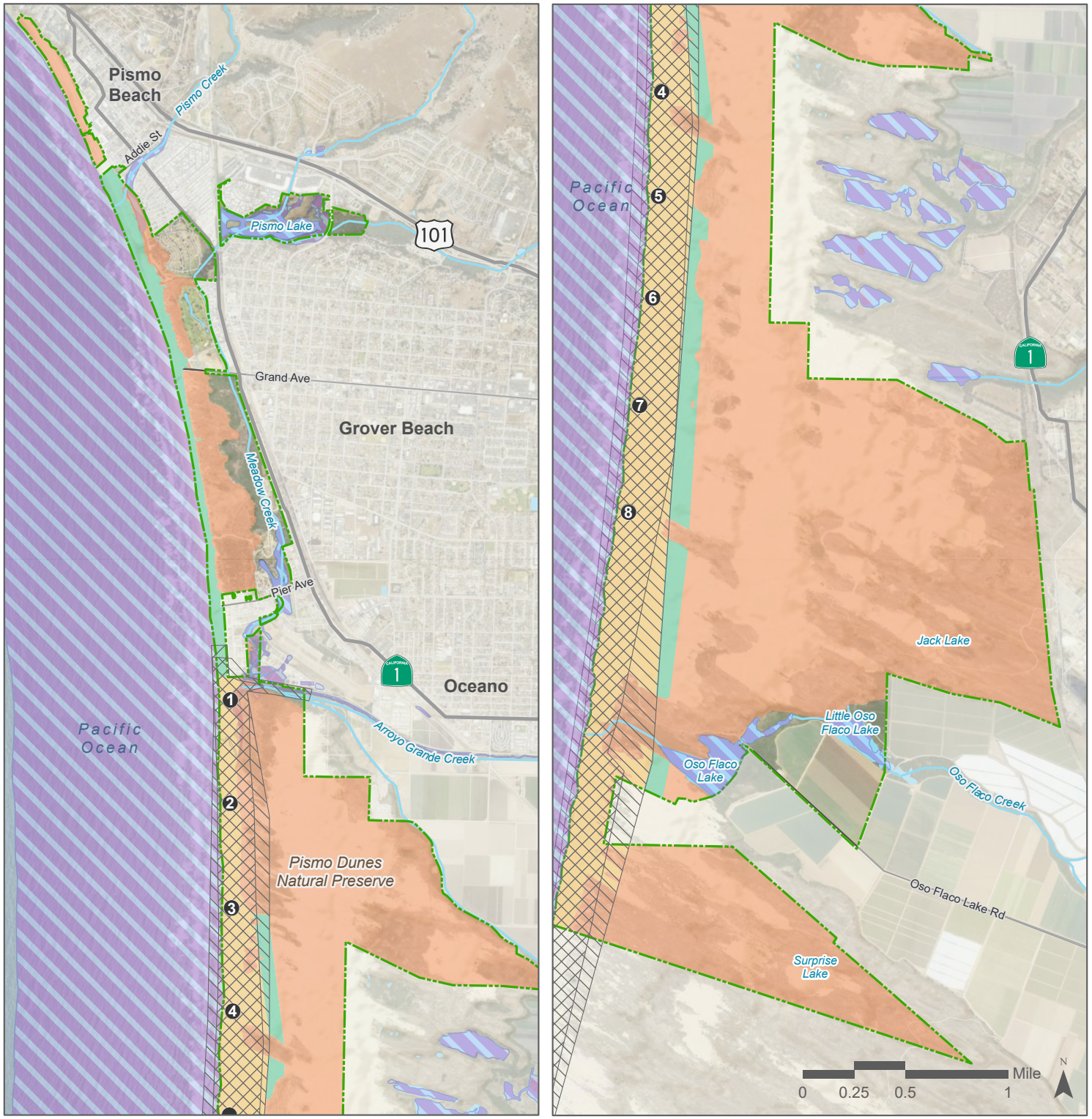
- HCP covered lands
- Marker post
- Stream
- Highway
- Access road

Note: WSF upland habitat is located throughout the HCP area wherever not mapped as potential aquatic or breeding habitat.

May 2026
Source: USFWS 2024; CDPR 2024; MIG 2024

Figure 6-5 Western Spadefoot Occurrences and Potential Habitat

CDPR, Oceano Dunes District Habitat Conservation Plan EIR



Western Snowy Plover and California Least Tern Habitat

- Primary habitat
- Secondary habitat
- Tertiary habitat
- CLTE Foraging habitat
- SNPL critical habitat - CA 31
- SNPL recovery plan unit - CA 83

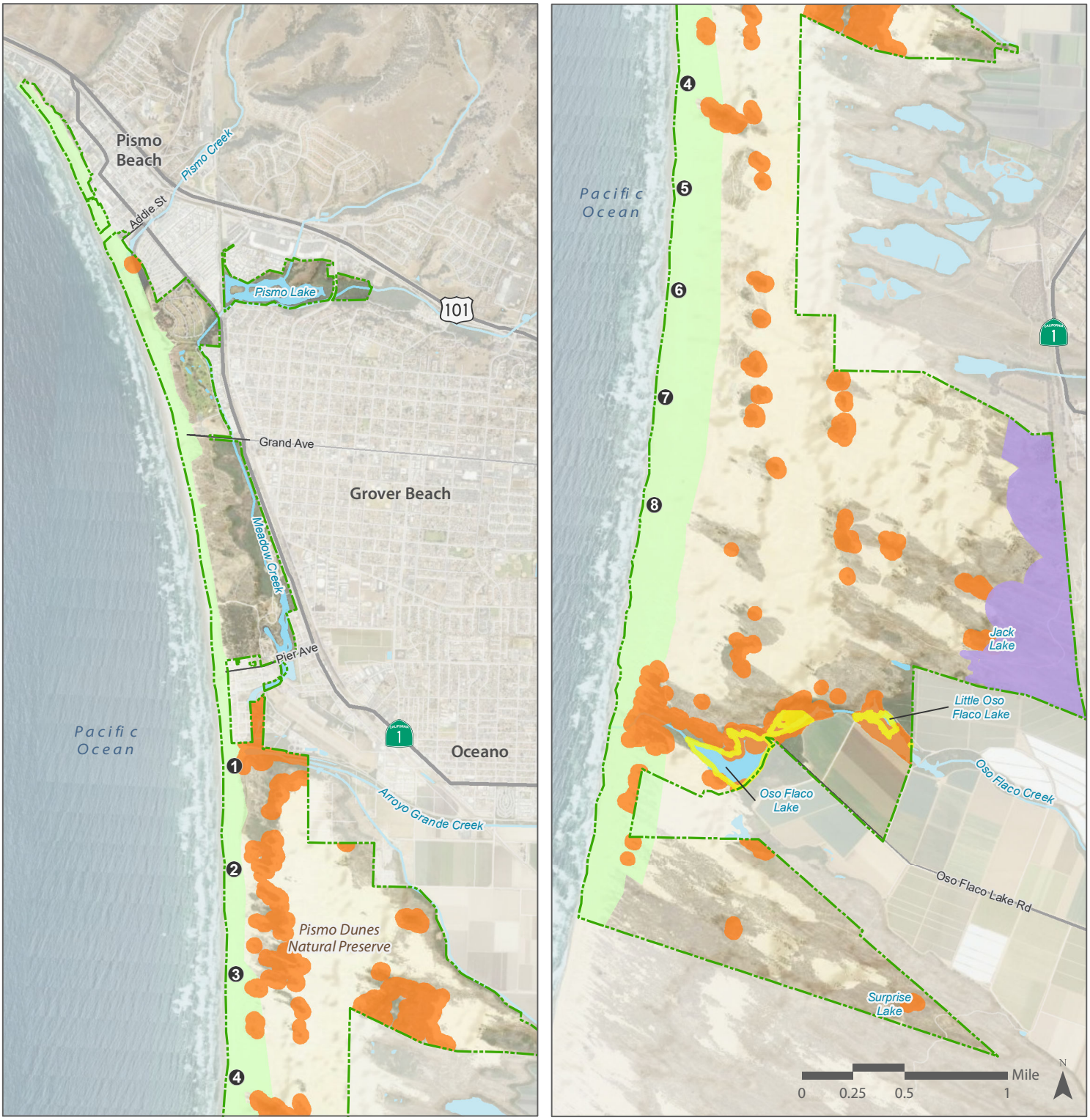
Base Map Features

- HCP covered lands
- Marker post
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR 2024; MIG 2024

Figure 6-6 Western Snowy Plover and California Least Tern Breeding and Foraging Habitat

CDPR, Oceano Dunes District Habitat Conservation Plan EIR



Sensitive Plant Habitat

- Marsh sandwort / Gambel's watercress: 16 acres
- La Graciosa thistle: 559 acres
- Surf thistle / Beach spectaclepod: 896 acres
- Nipomo Mesa lupine: 267 acres

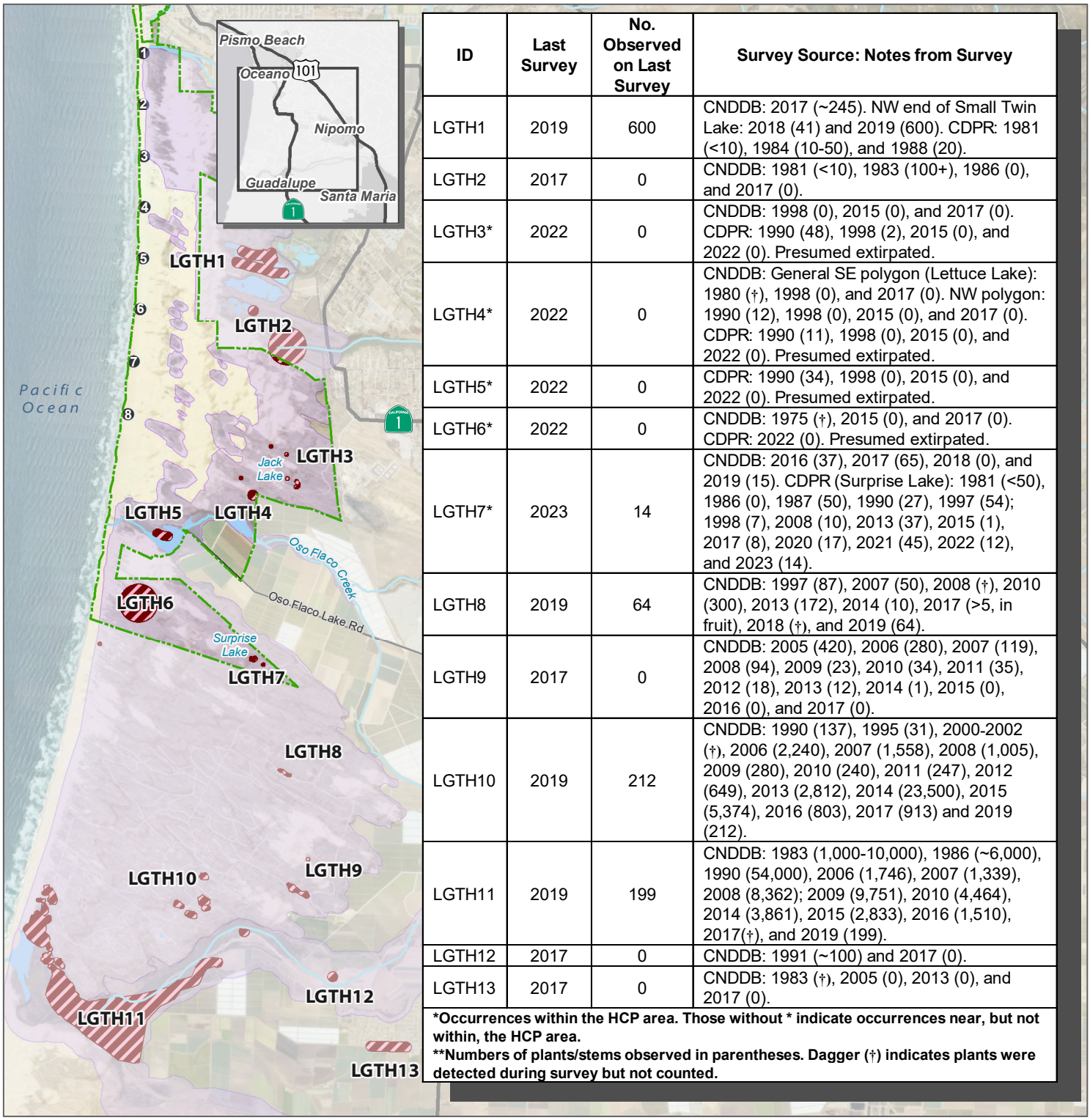
Base Map Features

- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR 2024; MIG 2024

Figure 6-7 Modeled Plant Habitat in the HCP Area

CDPR, Oceano Dunes District Habitat Conservation Plan EIR



ID	Last Survey	No. Observed on Last Survey	Survey Source: Notes from Survey
LGTH1	2019	600	CNDDB: 2017 (~245). NW end of Small Twin Lake: 2018 (41) and 2019 (600). CDPR: 1981 (<10), 1984 (10-50), and 1988 (20).
LGTH2	2017	0	CNDDB: 1981 (<10), 1983 (100+), 1986 (0), and 2017 (0).
LGTH3*	2022	0	CNDDB: 1998 (0), 2015 (0), and 2017 (0). CDPR: 1990 (48), 1998 (2), 2015 (0), and 2022 (0). Presumed extirpated.
LGTH4*	2022	0	CNDDB: General SE polygon (Lettuce Lake): 1980 (†), 1998 (0), and 2017 (0). NW polygon: 1990 (12), 1998 (0), 2015 (0), and 2017 (0). CDPR: 1990 (11), 1998 (0), 2015 (0), and 2022 (0). Presumed extirpated.
LGTH5*	2022	0	CDPR: 1990 (34), 1998 (0), 2015 (0), and 2022 (0). Presumed extirpated.
LGTH6*	2022	0	CNDDB: 1975 (†), 2015 (0), and 2017 (0). CDPR: 2022 (0). Presumed extirpated.
LGTH7*	2023	14	CNDDB: 2016 (37), 2017 (65), 2018 (0), and 2019 (15). CDPR (Surprise Lake): 1981 (<50), 1986 (0), 1987 (50), 1990 (27), 1997 (54); 1998 (7), 2008 (10), 2013 (37), 2015 (1), 2017 (8), 2020 (17), 2021 (45), 2022 (12), and 2023 (14).
LGTH8	2019	64	CNDDB: 1997 (87), 2007 (50), 2008 (†), 2010 (300), 2013 (172), 2014 (10), 2017 (>5, in fruit), 2018 (†), and 2019 (64).
LGTH9	2017	0	CNDDB: 2005 (420), 2006 (280), 2007 (119), 2008 (94), 2009 (23), 2010 (34), 2011 (35), 2012 (18), 2013 (12), 2014 (1), 2015 (0), 2016 (0), and 2017 (0).
LGTH10	2019	212	CNDDB: 1990 (137), 1995 (31), 2000-2002 (†), 2006 (2,240), 2007 (1,558), 2008 (1,005), 2009 (280), 2010 (240), 2011 (247), 2012 (649), 2013 (2,812), 2014 (23,500), 2015 (5,374), 2016 (803), 2017 (913) and 2019 (212).
LGTH11	2019	199	CNDDB: 1983 (1,000-10,000), 1986 (~6,000), 1990 (54,000), 2006 (1,746), 2007 (1,339), 2008 (8,362); 2009 (9,751), 2010 (4,464), 2014 (3,861), 2015 (2,833), 2016 (1,510), 2017(†), and 2019 (199).
LGTH12	2017	0	CNDDB: 1991 (~100) and 2017 (0).
LGTH13	2017	0	CNDDB: 1983 (†), 2005 (0), 2013 (0), and 2017 (0).

***Occurrences within the HCP area. Those without * indicate occurrences near, but not within, the HCP area.**
****Numbers of plants/stems observed in parentheses. Dagger (†) indicates plants were detected during survey but not counted.**

La Graciosa Thistle
- La Graciosa thistle critical habitat
- La Graciosa thistle occurrence

Base Map Features
- Marker post
- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

0 0.5 1 2 Mile

N

MIG

May 2026
Source: USFWS 2009; CDPR 2024; CNDDB 2024; MIG 2024

Figure 6-8 La Graciosa Thistle Occurrences and Critical Habitat in and near the HCP Area

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CHAPTER 7. CULTURAL AND TRIBAL CULTURAL RESOURCES

7.1 REGULATORY SETTING

Federal, state, and local laws and regulations governing cultural resources exist to protect cultural, historic, and paleontological resources from damage and destruction. Violation of these laws and regulations would constitute a significant impact to cultural and tribal cultural resources. The laws and policies that pertain to the cultural resources potentially present on the project site or affected by the project are discussed below.

7.1.1 National Historic Preservation Act

The National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects on significant cultural resources (i.e., historic properties) prior to undertakings.

California implements the NHPA through its statewide comprehensive cultural resource preservation programs. The California Office of Historic Preservation, an office of the CDPR, implements the policies of the NHPA on a statewide level. The State Office of Historic Preservation (SHPO) also maintains the California Historical Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the state's jurisdiction.

7.1.1.1 National Register of Historic Places

The NRHP was established by the NHPA as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

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

Criterion B: It is associated with the lives of persons who are significant in our past.

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

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

7.1.2 Archaeological Resources Protection Act

The ARPA (16 USC §470aa-mm) prohibits the unauthorized excavation, removal, or damage of archaeological resources on federal and Indian lands and provides penalties for violations.

7.1.3 Native American Graves Protection and Repatriation Act

The NAGPRA (25 USC §§3001-3013) conveys to American Indians, of demonstrated lineal descendance, human remains and funerary or religious items that are held by federal agencies and federally-supported museums, or that have been recovered from federal lands. It also makes the sale of purchase of American Indian remains, "whether or not they derive from federal or Indian lands, illegal."

7.1.4 California Environmental Quality Act

CEQA provides criteria to evaluate whether a building, structure, object, or site is significant and therefore qualifies for listing in the California Register of Historical Resources (CRHR). CEQA also establishes statutory requirements for the formal review and analysis of the impacts of proposed projects upon cultural resources.

7.1.4.1 Historical Resources

CEQA provides criteria to evaluate whether a building, structure, object, or site is significant. Under CEQA Guideline §15064.5(a), historic resources include the those meeting the criteria listed below.

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR; Pub. Res. Code §5024.1, 14 CCR § 4850 *et seq.*)
- A resource included in a local register of historical resources, as defined PRC Section 5020.1(K) or identified as significant in an historical resource survey meeting the requirements of PRC section 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering,

> scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historic Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) (Criteria listed below under *California Register of Historical Resources*).

The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC § 5020.1(k)), or identified in a historical resources survey (meeting the criteria in PRC § 5024.1(g)) does not preclude a Lead Agency from determining that the resource may be a historical resource as defined by PRC section 5020.1(j) or 5024.1.

7.1.4.2 California Register of Historical Resources (CRHR)

The CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change" (Pub. Res. Code §5024.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (Pub. Res. Code §5024.1):

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.
>
> Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
>
> Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

7.1.4.3 Historical Resources Impact Thresholds

The process for analyzing project impacts on historical resources, as defined by CEQA Guidelines section 15064.5, includes the identification of resources, as defined by CEQA, and a determination of whether the effects of the project would result in a substantial adverse change in the resources. According to CEQA Guidelines section 15064.5(b), a project is considered to have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource.

PRC section 21084.1 further states "A project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment." PRC section 20184.2 states "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."

CEQA Guidelines (§ 15064.5(b)(2)) state that the significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR.

7.1.4.4 Unique Archaeological Resources

Pursuant to CEQA (PRC § 21083.2(g)), a unique archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

To the extent that unique archaeological resources are not preserved in place or not left in an undisturbed state, mitigation measures shall be required (PRC § 21083.2(c)). If an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment, and it shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR (14 CCR § 15064.5(c)(4)).

7.1.5 Assembly Bill 52 / Tribal Cultural Resources

AB52 creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    a. Included or determined to be eligible for inclusion in the CRHR

   b. Included in a local register of historical resources as defined in PRC section 5020.1(k)
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC section 5024.1 (c). In applying the criteria set forth in PRC section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above may also be a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

In addition, a historical resource described in PRC section 21084.1, a unique archaeological resource as defined in PRC section 21083.2(g), or a "non-unique archaeological resource" as defined in PRC section 21083.2(h) may also be a tribal cultural resource if it conforms to the above criteria.

AB52 requires a Lead Agency, prior to the release of a negative declaration, mitigated negative declaration, or EIR for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the Lead Agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation. AB52 states: "To expedite the requirements of this section, the [Native American Heritage Commission (NAHC)] shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area."

7.1.6 California Public Resources Code

7.1.6.1 Public Resources Code Sections 5024 and 5024.5

PRC section 5024 requires each state agency to make a good faith effort to formulate policies to preserve and maintain all state-owned historical resources under its jurisdiction and to submit to the SHPO an inventory of all state-owned structures over 50 years of age under its jurisdiction. Additionally, section 5024 permits the SHPO to determine which historical resources identified in inventories meet NRHP and state historical landmark criteria for inclusion on the master list of historical resources. The SHPO will maintain this master list comprised of all inventoried structures submitted and determined significant pursuant to PRC section 5024 (d), along with all state-owned historical resources currently listed in the NRHP or registered as a state historical landmark under state agency jurisdiction. PRC section 5024.5 sets limits on and establishes a protocol for any state agency action that may adversely affect historical resources identified pursuant to section 5024.

CDPR has had an active and ongoing historic preservation program with the SHPO since 1982 and is required to submit annual inventory updates as well as preservation and protection measures of historical resources to SHPO. To comply with PRC section 5024, state agencies can establish a Cultural Resource Management Program. CDPR's program includes Cultural Resource Management Guidelines that ensure that all cultural resources under CDPR jurisdiction are inventoried, evaluated, monitored, and protected.

7.1.6.2 Public Resources Code Section 5090

PRC section 5090.35(f) requires the OHMVR Division to protect cultural and archaeological resources within SVRAs.

7.1.6.3 Public Resources Code Section 5097.5

PRC section 5097.5 states, "It is illegal for any person to knowingly and willfully excavate or remove, destroy, injure, or deface cultural resources." Furthermore, the crime is a misdemeanor punishable by a fine not to exceed $10,000 and/or county jail time for up to 1 year. In addition to a fine and/or jail time, the court can order restitution, and restitution will be granted of the commercial and archaeological value of the property. The OHMVR Division's law enforcement officers are the primary personnel responsible for the protection of OHMVR Division cultural resources on a daily basis.

7.1.7 California Health and Safety Code

Health and Safety Code section 7050.5 regulates procedures in the event of human remains discovery. Pursuant to PRC section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the County Coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are determined to be Native American, the County Coroner is required to contact the NAHC. The NAHC is responsible for contacting the most likely Native American descendent, who would consult with the local agency regarding how to proceed with the remains.

7.1.8 Executive Order B-10-11

California State Transportation Agency Executive Order B-10-11 acknowledges the important relationship that many Native American California Tribes have with their native home of California. As described in the Executive Order, the term "Tribes" includes all Federally Recognized Tribes and additional California Native Americans. The Executive Order affirms that the State of California recognizes and reaffirms the inherent right of these Tribes to exercise sovereign authority over their members and territory. Most importantly, it is ordered that it is the policy of this Administration that every state agency and department subject to the Governor's control shall encourage communication and consultation with California Indian Tribes.

7.1.9 California Coastal Act

As described in greater detail in Chapter 7, Land Use and Planning, the California Coastal Act (PRC § 30000 *et seq.*) governs development within the Coastal Zone.

Chapter 2, section 30116 of the California Coastal Act defines "sensitive coastal resource areas" to mean those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, including archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the SHPO.

Chapter 3 of the Act, Coastal Resources Planning and Management Policies, sets forth the policies that constitute the standards for development subject to the Coastal Act. The applicable standards (or parts of standards) of this chapter related to cultural resources include:

- Reasonable mitigations are required where development would adversely impact archaeological or paleontological resources as identified by the SHPO (PRC § 30244).

7.1.9.1 Coastal Development Permit (CDP) 4-82-300

Oceano Dunes SVRA operates subject to CDP 4-82-300, issued in 1982 by the CCC, and last amended in 2001. Since CDP 4-82-300 predates the County LCP, the CCC retains permit jurisdiction for activities governed by the permit. CDP 4-82-300, as amended, requires the OHMVR Division to protect archaeological resources located within Oceano Dunes SVRA with fencing.

7.1.10 CDPR Native American Consultation Policy and Implementation

It is CDPR policy to involve California Native American groups in all plans and practices that have impacts on the cultural resources under CDPR's stewardship (CDPR 2007). Prior to implementing projects or policies that may have impacts to Native American sites within the State Park System, CDPR will actively consult with local California Native American groups regarding the protection, preservation, and/or mitigation of cultural sites and sacred places in the State Park System. Departmental Notice 2007-05, *Native American Consultation Policy and Implementation Procedures* (CDPR 2007) identifies the following nine areas of activity where consultation between local California Native American groups and CDPR is required:

- Acquisition of properties where cultural sites are present
- During the General Plan process and/or development of Management Plans
- Planning, design, and implementation of capital outlay projects
- Issues of concern identified by the tribes
- Plant and mineral gathering by Native people
- Access to California Native American ceremonial sites
- Archaeological permitting
- Mitigation of vandalism and development of protective measures at California Native American sites
- When using the Native voice in presenting the story of California Native American people in park units

7.1.11 Oceano Dunes District Tribal Cultural Resources Standard Practices

The Oceano Dunes District has an ongoing program of regular consultation with interested parties, including Native American Tribes, that has informed their awareness of cultural resource sensitivity in the park. It is the District's standard practice that during the project pre-planning process, the District identifies culturally sensitive areas. If a proposed project is located within a culturally sensitive area, projects are designed to avoid known resources. In addition, the District consults with Native American Tribes to determine if there are concerns about the potential for the proposed project to impact tribal cultural resources. If a Native American Tribe indicates that it would like to continue consultation, then the District will work with the group to resolve concerns through a variety of measures that may include minor redesigns to the proposed project and monitoring during ground disturbing activities. If requested, a Native American monitor will be on site during ground disturbing activities to potentially identify undiscovered resources and to ensure that known resources are protected. If there is an unanticipated discovery during project activities, the procedures outlined in the SPRs are followed and the District further consults with the Native American Tribe to avoid, preserve, and design an appropriate treatment strategy to protect the resource if needed.

7.2 ENVIRONMENTAL SETTING

7.2.1 Ethnographic and Pre-Contact

The HCP area is located within the Northern Chumash or Obispeño and Purisimeño language territory. The Obispeño practiced a regular seasonal round of population dispersal and aggregation in response to the location and seasonal availability of different food resources (Hoover 1990, Greenwood 1972, Greenwood 1978). They exploited a variety of fish, and shellfish (Pismo clam, mussel, and abalone, etc.) and hunted small and big game (Fitzgerald, Farquhar and Farrell 2003, Greenwood 1978). Their diet also included gathered acorns, seeds (acorn, chia), and plants (roots, tubers, greens) (Hoover 1990, Moratto 1984).

In 1770, the Chumash population totaled between 15,000 and 20,000. A Chumash village could include up to 1,000 residents, representative of the most populous settlement in the aboriginal Far West (Moratto 1984). Villages were not occupied year-round and likely disbanded into smaller social groups and dispersed to other areas for seasonal hunting or gathering (Fitzgerald, Farquhar and Farrell 2003).

There were six major Chumash villages adjacent to the project area. Starting in the north and working southward, these villages include: *Pismu', Chiliquini, Lachito, Stemectatimi* (or *Nipomo*), *Ajuaps* (or *Tmaps*), and *Atajes*. Chumash villages were headed by a chief (*wot* or *wocha*) who embodied an inherited authority over the entire village (Kroeber 1925).

The first of several Spanish encounters with the Obispeño near the HCP area occurred between 1769 and 1770 during Don Gaspar de Portolá's sojourn in the area (Gibson 2002). By the early 1800s, the entire Chumash population, with the exception of those who had fled into the mountains and the inland valleys, were incorporated into the mission system (Grant 1978). The mission period ended in 1834 with the passage of the Secularization Act. During this period, disease was wide-spread, killing many Chumash; alcoholism also contributed to Indian fatality (Wallace (1971) as cited in Grant (1978)).

With the arrival of Anglo-Americans to California in 1847, the Chumash population continued to decline through their exploitation as cheap laborers, by alcohol abuse, and through disease-related deaths. In 1855, land near the Santa Ynez Mission became the permanent settlement for 109 Chumash. This reserve, known as Zanja de Cota, was at one point 75 acres in size and was the smallest official Indian reserve in the state (Grant 1978). The reserve has since grown to over 1,000 acres with a large land purchase in 2010 (Khan 2018)).

In general, there are three major prehistoric cultural divisions that are marked by highly distinctive tool assemblages: the Millingstone Culture, the Hunting Culture, and the Late Period (Jones, et al. 2007). The earliest documented survey and excavation conducted in areas within and adjacent to the project area were completed by William J. Wallace and Edith S. Taylor in 1958 (Wallace and Taylor 1958). Based on several temporally diagnostic projectile points, these sites are associated with the Hunting Culture (3000 cal B.C. to cal A.D. 1250). A number of additional excavations were conducted on sites following Wallace and Taylor's 1958 study within and adjacent to the HCP area. Together, these excavation studies conclude the archaeology located within and adjacent to the HCP area dates between the Early/Middle Hunting Culture, cal. 3000 B.P. and the Late Period, cal A.D. 1250 to 1769.

7.2.1 European Colonization and Settlement

A large portion of the Portolá exploration occurred in present-day San Luis Obispo County and represents the earliest recorded Spanish expedition for the County. Many of San Luis Obispo County's place names as well as those in the HCP area were given by Portolá and his crew. The group named present-day Oso Flaco (Spanish for "skinny bear") and Dune lakes after a lean bear they killed in the area (Dart 1978).

The first Mission to be established near the HCP area was Mission San Luis Obispo de Tolosa on September 1, 1772 (Robinson 1957). California Indians remained property of California's missions until 1834, when the Mexican Congress decreed secularization to be the new law for land in California (Robinson 1957). The establishment of San Luis Obispo and Santa Barbara Counties shortly followed the 1848 Treaty of Guadalupe Hidalgo, at which point California became a territory of the United States. The Treaty put an end to a 3-year-long war between the United States and Mexico (Hoover 1990, Robinson 1957).

Between 1886 and 1894 the Southern Pacific Railroad was extended southward, starting at San Miguel and ending in San Luis Obispo. The coming of the Southern Pacific Railroad to San Luis Obispo County in 1895 led to the founding of the town of Oceano (Hammond 1992). Establishment of the railroad triggered construction of a railroad depot and shortly thereafter a hotel, a store, and a saloon. Following these developments, speculators purchased land around the railroad right-of-way and formed a collective group in charge of surveying the area and mapping the new townsite known today as Oceano (Hammond 1992).

In the early 20th century notable Hollywood films, including Cecil B. DeMille's *The Ten Commandments* (1923), were filmed near Guadalupe outside of the HCP area. In some cases, the film sets were intentionally buried beneath the dunes (Linn 2013).

The expansive and isolated landscape of the dunes in present-day Oceano Dunes SVRA at one time made for an attractive place to live for a group of wayward individuals known as Dunites. The Dunites included an assortment of people who occupied areas throughout the dunes beginning in the early 20th century to the mid-1970s. The Dunites sought isolation, solitude, and solace amongst the dunes, either living alone or in small communities in make-shift homes erected from driftwood and additional locally found resources.

The events of World War II greatly impacted the Dunites. Following the attack on Pearl Harbor, the government determined California's Central Coast was vulnerable to attack and fortification was necessary. During this time the dunes were closed to visitors, and many Dunites left (Hammond 1992, as cited in Gruver et al. 2005). Following the war, life in the dunes began to change dramatically. The number of visitors to the dunes increased as people from the San Joaquin Valley came to escape the summer heat (Hammond 1992, as cited in Gruver et al. 2005) . The last Dunite, Bert Schievink, left the dunes in 1974. The Dunite cabins have long since vanished under sand, and those that did not disappear below the surface were burned for fun by the public (Hammond 1992).

7.2.2 Cultural and Tribal Cultural Resources

There are no known historic-age buildings or structures within the HCP area. There are at least 48 existing cultural and tribal cultural resources within the HCP area. Documentation for 45 of the resources is provided by a Cultural Resource Inventory (CRI) prepared in 2011 for the OHMVR Division (Perez 2011). The CRI covered both Oceano Dunes SVRA and Pismo State Beach. The other three resources have since been discovered within the HCP area due to natural

erosion. Details regarding the three resources have been provided by CDPR (Baker 2018). Additional cultural resources and tribal cultural resources may exist below the surface within the HCP area.

Of the known resources, 43 are precontact, 4 are historic, and 1 is multi-component (i.e., contains elements of both precontact and historic periods). Twenty-five of the precontact sites are considered eligible for inclusion on either the CRHR or NRHP or both. One precontact site is considered ineligible for any register. The remaining precontact sites require further investigation before a determination of eligibility can be made. Precontact sites may also be considered tribal cultural resources.

Additionally, there were 29 cultural or tribal cultural resources previously discovered prior to the 2011 CRI, which were not included in the CRI as they were unable to be relocated due to the highly mobile dune environment. Because of the shifting sands, there is potential for some or all of the sites to still be present beneath the surface. Although there have been a number of cultural surveys in the HCP area, the shifting environment may mean that cultural resources in the area are present that have not yet been discovered. The HCP area, therefore, has a high degree of sensitivity in terms of cultural and tribal cultural resources.

7.2.2.1 Research and Study

Previous research and study have been carried out in the HCP area for prior CDPR projects. This EIR uses research that was gathered for the 2011 CRI of Oceano Dunes SVRA, Pismo State Beach, Dunes Preserve, and Pismo Lake (Perez 2011). Findings and background information was also utilized from the 2016 Oceano Dunes SVRA Dust Control Program EIR (MIG|TRA 2017).

No additional research was carried out for the Oceano Dunes HCP EIR, which relied on the results of the CRI. As new resources are identified or discovered, the standard practices described in section 7.1.11 and procedures outlined in the SPRs for cultural and tribal cultural resources are followed to ensure sensitive treatment of those resources.

7.2.2.2 Fieldwork

Fieldwork was not conducted specifically for this EIR; however, the OHMVR Division has performed two surveys within the HCP area. The first survey is the 2011 Oceano Dunes District CRI. The areas that were archaeologically surveyed during the 2011 Oceano Dunes District CRI were chosen based on a predictive model adapted from previous archaeological surveys of areas within the project boundary.

The second survey occurred in April 2013, when archaeological and Native American monitoring was conducted during installation of dust control equipment. The survey was conducted by Elise Wheeler and Matthew Goldman on May 2, 8, and 16, 2013. As a result of the archaeological monitoring program, all culturally sensitive areas were avoided during this 2013 monitoring. The results of the project monitoring were recorded in an archaeological monitor report (Perez 2013). CDPR provided copies of the archaeological survey and archaeological monitor reports to representatives of the Northern Chumash Tribal Council, Santa Ynez Tribal Elders Council, yak tityu tityu – Northern Chumash Tribe, and the Odom family. The project concluded in October 2013.

Prior research and field studies show areas of archaeological sensitivity, where there is a higher chance of discovery of archaeological finds. GIS data has been created by CDPR using

information from previous studies to show areas of archaeological sensitivity. Figure 7-1 Sensitive Cultural Resource Areas shows areas that have been mapped for archaeological sensitivity within the HCP boundary. To ensure protection of sensitive cultural resources, the specific resource locations are not shown.

7.2.2.3 Archaeological Discoveries

Due to the nature of the sand dunes within the HCP area, archaeological discovery often happens by accident, when sands shift and reveal archaeological resources that were previously subsurface. When these are discovered, State Parks archaeologists record and catalog the discoveries and provide the Central Coast Information Center with their findings for recordation within the California Historical Resources Information System (CHRIS) database. Consistent with PRC section 5090.35(f), CDPR resource staff ensure any newly discovered cultural resources are protected, including by erecting fencing or other barriers if needed. Since the last archaeological field survey in 2013, some new archaeological sites have been discovered within the HCP area, all of which CDPR archeologists have cataloged and recorded and forwarded to the Central Coast Information Center. These new resources are included in the cultural resources summary above.

7.2.2.4 Assembly Bill 52 (AB52) Consultation

A record search of the NAHC Sacred Lands File indicated the presence of Native American cultural sites within portions of the HCP area. The NAHC provided a contact list of Native American tribes traditionally and culturally affiliated with the geographic region of the Oceano Dunes HCP area who may have additional knowledge of the area (EIR Appendix E). Pursuant to PRC 21080.3.1, CDPR sent letters on July 15, 2025, to the following tribes notifying them of the project and inviting them to consult on the project's potential impacts to tribal cultural resources.

- Chumash Council of Bakersfield
- Coastal Band of the Chumash Nation (3 representatives)
- Northern Chumash Tribal Council
- Salinan Tribe of Monterey (2 representatives)
- Santa Ynez Band of Chumash Indians (4 representatives)
- Tule River Indian Tribe
- yak tityu tityu yak tiłhini Northern Chumash Tribe

The Northern Chumash Tribal Council formally requested consultation. CDPR is informally consulting with the yak tityu tityu yak tiłhini Northern Chumash Tribe. No response to the invitation to consult with CDPR was received from the other tribes. CDPR met with the Northern Chumash Tribal Council in September 2025 to provide information on proposed project activities and to receive tribal information. No further ~~The~~consultation ~~process is ongoing~~was requested.

7.2.3 Reviews of Site Conditions

Sand dune systems are mobile and susceptible to movement. Thus, the process of relocating previously recorded sites and locating new cultural resources within the HCP area is difficult. Given the mobile dune environment, it is common for a resource to be identified in an area where no resources were previously noted. Additionally, the sand dune terrain has made it difficult for previous archaeological studies to adequately walk in methodically measured

transects as is the standard for an archaeological pedestrian field survey of an entire HCP boundary.

7.3 PROJECT IMPACTS

7.3.1 Thresholds of Significance

Consistent with CEQA Guidelines Appendix G, the project would have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - 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
    - 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.

SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13); SWPT and WSF monitoring (CA-14); invasive aquatic predator control (CA-17); and CDPR UAS use for park activities (CA-52) are activities that involve monitoring, data collection, and species handling. The activities do not involve ground disturbance in culturally sensitive areas. As a result, these activities would have no impact on cultural resources, human remains, or tribal cultural resources and are not further discussed in the EIR.

7.3.2 Cultural Resources Impacts

The section below collectively refers to historical and archaeological resources as cultural resources. Tribal cultural resources are analyzed separately in section 7.3.4 below.

Pursuant to CEQA Guidelines section 5064.5(b), a substantial adverse change in the significance of a historical resource is defined as "the demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that its significance is materially impaired." In general, a historical resource's significance is materially impaired when it can no longer convey its historical significance and therefore can no longer justify its inclusion in, or eligibility for inclusion in, the CRHR, the local register of historical resources pursuant to PRC section 5020.1(k), or its identification in a historical resources survey meeting the requirements of PRC section 5024.1(g).

As described in section 7.2.2, there are no known historic-age buildings or structures within the HCP area. Within the HCP area there are 48 known cultural resources: 43 are precontact sites, 4 are historic sites, and 1 is a multi-component site. Forty-four sites contain precontact elements, which could be considered tribal cultural resources. It is considered likely that there are additional cultural and tribal cultural resources as yet undiscovered within the HCP area, existing below the surface.

In general terms, implementation of the HCP would not impact known cultural resources. The new covered activities proposed by CDPR are discussed below.

Habitat Restoration Activities – Dune Slack Restoration (CA-16). CDPR would restore at least 0.75 acres of dune slack wetland associated with Surprise Lake and/or Jack Lake, in the southeastern part of the SVRA. These sites are located in areas of medium cultural sensitivity and at least one known resource, CA-SLO-859 (prehistoric lithic scatter and shell midden), has been identified in proximity to Jack Lake. No recorded sites occupy the potential restoration work areas or buffer. Restoration activities, including access, excavation, and/or grading, vegetation removal, and habitat restoration would involve ground disturbance of surface soils and could uncover cultural resources if present. Up to 4 acres of scrub habitat including the currently wetted swale habitat could be disturbed by grading activity. The work would be conducted with excavators and small tractors. Due to the use of heavy equipment, there is potential to disturb cultural resources.

CDPR uses the standard practices described in section 7.1.11 and procedures outlined in the SPRs to minimize and avoid impacts to unrecorded cultural resources inadvertently discovered during restoration activities. A CDPR-qualified Cultural Resource Specialist would map and document the work site access areas prior to the start of on-site construction work to determine the potential presence of cultural resources. Prior to the start of ground-disturbing activities, a CDPR-approved archaeologist would complete pre-construction testing to determine specific avoidance areas. A cultural resources specialist familiar with the project site's cultural/historical resources would monitor all construction activities located within mapped sensitivity areas and record any cultural resources uncovered during the project.

As described in EIR section 7.2.2.3, should an unknown cultural resource site be discovered, it would be recorded, assessed, and protected from further disturbance. Should any unexpected cultural resources be encountered by the monitors during any project-related work, avoidance and preservation in place would be implemented as the preferred treatment methods.

With these measures in place to ensure further protection of cultural resources, the restoration activity would have a ***less-than-significant impact*** on cultural resources.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would only occur in areas that are already disturbed by recreation outside of culturally sensitive areas with known, covered or uncovered, cultural sites (Figure 7-1). A cultural resources monitor would review all proposed trash removal areas to confirm that all known cultural sites, including sites currently buried, are avoided. The raking action of mechanical trash removal would actively disturb the top 2 to 6 inches of the sand surface. This depth of sand disturbance by mechanical trash removal is consistent with disturbance from ongoing recreation activity and would thus not significantly increase the potential for disturbance of cultural resources. CDPR implements the standard practices described in section 7.1.11 and procedures outlined in the SPRs to ensure protection of cultural resources. As described in EIR section 7.2.2.3, should an unknown cultural resource site be discovered, it would be recorded, assessed,

and protected from further disturbance. As a result, the proposed mechanical trash removal would have a ***less-than-significant impact*** on cultural resources.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). 6 Exclosure is not within an area of medium or high cultural sensitivity (Figure 7-1). The edges of the East Boneyard area overlap areas of medium and high cultural sensitivity (Figure 7-1). There are two sites partially within the East Boneyard boundary, CA-SLO-864 (lithic scatter) and CA-SLO-2851 (habitation debris). Both sites are covered by the mobile dune environment and were not relocated during the 2011 CRI and are not fenced off. Recreational access already occurs in the East Boneyard Exclosure and 6 Exclosure areas 5 months out of the year during the non-breeding season for CLTE and SNPL. Allowing year-round access to the East Boneyard Exclosure and 6 Exclosure areas would not introduce new impacts to cultural resources in these areas. CDPR implements the standard practices described in section 7.1.11 and procedures outlined in the SPRs to ensure protection of cultural resources. As described in EIR section 7.2.2.3, should an unknown cultural resource site be discovered, it would be recorded, assessed, and protected from further disturbance. As a result, the proposed change in exclosure fencing would have a ***less-than-significant impact*** on cultural resources.

7.3.3 Human Remains

One burial site is known within the HCP area containing at least one human burial. There is potential for undiscovered human remains to exist within the HCP area. However, as discussed in EIR sections 7.3.2 and 7.3.4, new activities involving ground disturbance (CA-16, CA-21, CA-50) proposed by CDPR would not significantly impact subsurface or surface archaeological resources or tribal cultural resources. Should human remains be discovered, CDPR would follow the procedure as outlined in California Health and Safety Code section 7050.5 to determine the appropriate course of action for dealing with the find. In addition, CDPR would follow the SPRs, which stipulate that in the event that human remains are discovered on the project site, work would immediately cease in the area, the appropriate authorities would be notified, and consultation with tribal representatives would occur as required. The proposed new project activities would not significantly increase the potential of discovery of human remains within the HCP area. Implementation of the HCP would therefore have a ***less-than-significant impact*** on human remains.

7.3.4 Tribal Cultural Resources

Within the HCP area there are 43 known precontact sites, which could be considered tribal cultural resources. Additional tribal cultural resources may exist below the surface within the HCP area.

No Tribal Cultural Resources were identified within the specific project activity areas or buffer, but the responses to outreach combined with the environmental setting and the results of the CHRIS records search described under Cultural Resources discussion in Section 7.2.4 indicate a level of sensitivity at the site for associated Tribes. In general terms, implementation of the proposed new project activities is not expected to impact known tribal cultural resources, but there is potential to disturb unknown tribal cultural resources. The new covered activities proposed by CDPR are discussed below.

Habitat Restoration Activities – Dune Slack Restoration (CA-16). CDPR would restore at least 0.75 acres of dune slack wetland associated with Surprise Lake and/or Jack Lake, in the southeastern part of the SVRA. These sites are located in areas of medium cultural sensitivity

and at least one known prehistoric site lithic scatter and shell midden (CA-SLO-859) has been identified in proximity to Jack Lake and could be considered a tribal cultural resource. No known tribal cultural resources occupy the potential restoration work areas or buffer. Restoration activities, including access, excavation, and/or grading, vegetation removal and habitat restoration would involve ground disturbance of surface soils and could uncover tribal cultural resources if present. Up to 4 acres of scrub habitat including the wetted swale habitat could be disturbed by grading activity. The work would be conducted with excavators and small tractors. Due to the use of heavy equipment, there is potential to disturb tribal cultural resources.

As specified in CDPR's SPRs (Appendix B) and standard practices outlined in section 7.1.11, cultural resource specialists would monitor all ground-disturbing activities occurring within the sensitive tribal cultural resource areas. Additionally, Native American monitors would be on site for ground disturbing activities as needed and/or when specifically requested through tribal consultation. Should any unexpected cultural resources be encountered by the monitors during any project-related work, they will be assessed and protected from further disturbance until appropriate treatment is determined As a result, the restoration activity would have a ***less-than-significant impact*** on tribal cultural resources.

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would only occur in areas that are already disturbed by recreation outside of culturally sensitive with known, covered or uncovered, cultural sites (Figure 7-1. A CDPR-qualified Cultural Resources Monitor would review all proposed trash removal areas to confirm that all known cultural sites, including sites currently buried, are avoided. The raking action of mechanical trash removal would actively disturb the top 2 to 6 inches of the sand surface. This depth of sand disturbance by mechanical trash removal is consistent with disturbance from ongoing recreation activity and would thus not significantly increase the potential for disturbance of tribal cultural resources. CDPR implements the standard practices outlined in section 7.1.11 and SPRs to ensure protection of cultural resources. As described in EIR section 7.2.2.3, should an unknown tribal cultural resource site be discovered, it would be assessed and protected from further disturbance. As a result, the proposed mechanical trash removal would have a less-than-significant impact on cultural resources.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). 6 Exclosure is not within an area of medium or high cultural sensitivity (Figure 7-1). The edges of the East Boneyard area overlap areas of medium and high cultural sensitivity (Figure 7-1) There are two sites partially within the East Boneyard boundary, CA-SLO-864 (lithic scatter) and CA-SLO-2851 (habitation debris). Both sites are covered by the mobile dune environment and were not relocated during the 2011 CRI and are not fenced off. Recreational access already occurs in the East Boneyard Exclosure and 6 Exclosure areas 5 months out of the year during the non-breeding season for CLTE and SNPL. Allowing year-round access to the East Boneyard Exclosure and 6 Exclosure areas would not introduce new impacts to tribal cultural resources in these areas. CDPR implements the standard practices described in section 7.1.11 and procedures outlined in the SPRs to ensure protection of cultural resources. As described in EIR section 7.2.2.37.2.4.3, should an unknown tribal cultural resource site be discovered, it would be assessed and protected from further disturbance. As a result, the proposed change in exclosure fencing would have a ***less-than-significant impact*** on tribal cultural resources.

7.4 CUMULATIVE IMPACTS

HCP Future Projects

Future potential activities covered by the HCP (EIR section 2.4.2.3) have the potential to impact cultural resources and tribal cultural resources as discussed below. These future activities are subject to further environmental review, and potential impacts to cultural resources and tribal cultural resources would be considered under separate CEQA documents (see EIR section 2.5). Future potential activities covered by the HCP not resulting in ground disturbance or occurring outside of known areas with cultural sensitivity are not expected to contribute toward cumulative cultural resource and tribal cultural resource impacts and therefore are not discussed below.

The following activities are dismissed from further consideration: SNPL adult banding (CA-12b); listed plant propagation and outplanting (CA-15); cable fence replacement (CA-28); Grover Beach Lodge (CA-38); Pismo Creek Estuary seasonal floating bridge (CA-41); replacement of the safety and education center (CA-43); and dust control activities (CA-44).

Potential future activities covered by the HCP in areas with cultural sensitivity where ground disturbance would occur have the potential to disturb cultural resources and tribal cultural resources or unearth human remains and are described in further detail below. Future activities covered by the HCP identified in EIR section 2.4.2.3 are subject to further environmental review, and potential impacts to cultural resources, tribal resources, and human remains would be considered under separate CEQA documents (see EIR section 2.5).

Habitat Manipulation in Southern Exclosure (CA-12b). The Southern Exclosure area contains archaeological cultural sites and areas with moderate to high cultural sensitivity (Figure 7-1). Habitat manipulation would disturb surface sands by removing vegetation and larger dune hummocks. These activities would be subject to archaeological review to ensure known resources are avoided. Under CDPR's cultural resource program, an archaeological monitor must be present for all projects located near cultural resources and tribal cultural resources to ensure resources are protected and avoided. CDPR implements the standard practices outlined in section 7.1.11 and SPRs to ensure protection of cultural resources. As described in EIR section 7.2.2.3, should an unknown tribal cultural resource site be discovered, it would be assessed and protected from further disturbance. As a result, the potential impact of habitat manipulation activities in the Southern Exclosure on cultural resources, tribal cultural resources, and human remains would be less than significant.

Habitat Restoration Program (CA-16) – Cal VTP. Specific habitat restoration activities may occur on approximately 300 acres of Pismo State Beach (including at Pismo Lake) under the California Vegetation Treatment Program (CalVTP). This CalVTP area (Figure 3-1) is targeted to reduce fuels in the wildland urban interface and to promote ecological restoration of this area. The work involves removal of fuels and non-native vegetation, mechanical removal of non-native vegetation, prescribed fire, and herbicide application to restore these areas to more naturally functioning native habitats. The work would primarily be conducted with hand tools; however, activities could require the use of heavy equipment if work cannot be performed with hand tools. No grading is required for treatments. The CalVTP project areas may include previously undocumented cultural and tribal cultural resources.

The CALVTP project sites would occur outside of the areas known to contain sensitive cultural resources as mapped in Figure 7-1. Ground-disturbing activities would be subject to archaeological review to ensure known resources are avoided. Under CDPR's cultural resource program, an archaeological monitor must be present for all projects located near cultural resources and tribal cultural resources to ensure resources are protected and avoided. As a result, the potential impact of the CalVTP activities on tribal cultural resources, and human remains would be less than significant.

Limited Trail Riding (CA-42). The limited trail riding area contains archaeological cultural sites and areas with moderate to high cultural sensitivity (Figure 7-1). Trail alignment through this area would be subject to archaeological review to ensure known resources are avoided. Due to the nature of the environment, specifically the shifting sands, trails within areas of higher cultural sensitivity have the potential to reveal previously unknown sites. Under CDPR's cultural resource program, an archaeological monitor must be present for all projects involving ground disturbing activities located near cultural resources and tribal cultural resources to ensure resources are protected and avoided. As a result, the potential impact of limited trail riding on tribal cultural resources, and human remains would be less than significant**.**

Oso Flaco Boardwalk Replacement (CA-48). The Oso Flaco Lake area is predominately surrounded by riparian areas with moderate cultural sensitivity (Figure 7-1). Several smaller areas of high sensitivity are adjacent to the lakes. Boardwalk replacement would involve removing existing pilings supporting the structure and installing replacement piers, likely via a pile driver. Equipment and materials may traverse wetlands or need to be ferried to the work site via a boat or floating platform. New pilings would cause ground disturbance beneath Oso Flaco Lake. Construction equipment staging areas, equipment access paths to the work site, and connection points of the boardwalk to the ground surface would disturb soils. Cultural resources and tribal cultural resources could be impacted if present in soil disturbance areas. There are no recorded cultural or tribal cultural sites in the water. An archaeologist would survey the work site areas prior to construction to determine the potential presence of cultural resources and tribal cultural resources. Resources would be flagged for avoidance and monitored. As a result, the potential impact of the Oso Flaco Boardwalk replacement on tribal cultural resources, and human remains would be less than significant**.**

Special projects (CA-49). Special projects could be located in areas of cultural sensitivity. Project areas would be surveyed for archaeological resources prior to construction to avoid resources. Under CDPR's cultural resource program, an archaeological monitor must be present for all ground disturbing projects located near cultural resources and tribal cultural resources to ensure resources are protected and avoided. As a result, the potential impact of special projects on tribal cultural resources, and human remains would be less than significant**.**

Other CDPR Projects

Other CDPR projects actively planned or foreseeable in the future may occur in developed areas of the park such as improvements to campgrounds, entrance stations, and the Le Sage Drive bridge. These areas are previously developed and are not located in areas with known cultural resources and tribal cultural resources. Lifeguard towers at the Grand Avenue or Pier Avenue entrance areas would be erected in highly used beach areas. The ground disturbance required for these facility improvements would be minor and unlikely to impact cultural resources. Cultural resource site CA-SLO-396 (lithic scatter, shell midden) is located at the Corporation Yard. Facility improvement projects at the Corporation Yard have the potential to impact cultural resources if they involve ground disturbance near these cultural sites. Under CDPR's cultural resource program, an archaeological monitor must be present for all projects located near cultural resources and tribal cultural resources to ensure resources are protected and avoided. As a result, impacts of other CDPR projects on cultural resources, tribal cultural resources, and human remains would be less than significant. These projects would also have project specific environmental review that may include additional measures to protect sensitive habitats.

Local Agency Projects

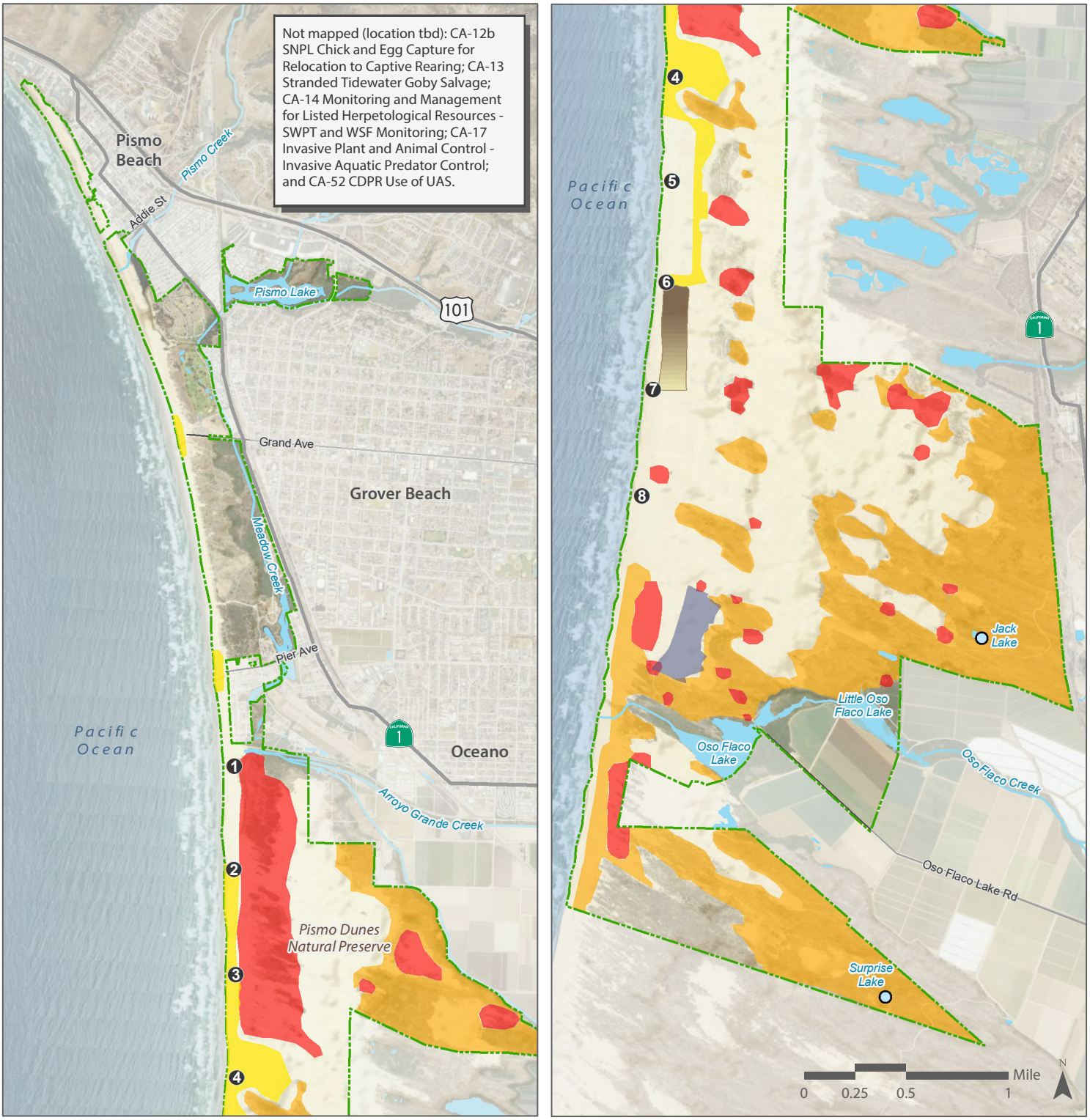
Projects approved in San Luis Obispo County considered in the cumulative impact analysis (Table 3-1) could encounter undiscovered cultural resources and tribal cultural resources. These projects have measures in place to reduce the potential impact to a level of less than significant. The location of these resources is site specific and impacts to these resources would not combine with impacts from other past, present, or foreseeable future projects to incrementally increase the impact on cultural resources and tribal cultural resources. Because restrictions on development would be applied in the event that cultural resources and tribal cultural resources are discovered on a project site, individual residual incremental effects, when considered cumulatively, are not anticipated to rise to a level of significance.

Conclusion

Some of the HCP-proposed new activities could potentially impact cultural resources, tribal cultural resources, and human remains as described in section 7.3, but all potential impacts would be less than significant with implementation of the standard practices outlined in section 7.1.11 and SPRs and would not combine with impacts from other past, present, or foreseeable future projects to incrementally increase the impact on cultural resources. For these reasons, the HCP would have a ***less-than-significant cumulative impact*** on cultural resources and tribal cultural resources.

7.5 MITIGATION MEASURES

No significant impacts to cultural resources or tribal cultural resources have been identified for the project based on the analysis contained in EIR sections 7.3 and 7.4 above and no mitigation is required. CDPR uses the standard practices outlined in section 7.1.11 and SPRs to minimize and avoid impacts to unrecorded cultural resources inadvertently discovered during restoration activities. Overall, the standard practices and SPRs would reduce the potential impacts of ground disturbing activities to a less-than-significant level. As a result, additional measures are not necessary; no mitigation is required.



Senstitive Cultural Resource Areas

- Medium Cultural Resource Sensitivity
- High Cultural Resource Sensitivity

Proposed New Covered Activities

- CA-16 Dune slack wetland restoration (potential site)*
- CA-21 Mechanical trash removal*
- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*

*Approximate location

Base Map Features

- HCP covered lands
- Waterbody
- Stream
- Highway
- Access road

May 2026
Source: CDPR, 2020; MIG, 2020

Figure 7-1 Sensitive Cultural Resource Areas

CDPR, Oceano Dunes District Habitat Conservation Plan EIR

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CHAPTER 8. RECREATION AND PUBLIC ACCESS

8.1 REGULATORY SETTING

8.1.1 California's Recreation Policy

In the belief that all Californians should be provided with an array of opportunities allowing them to pursue their personal recreational interests, the Legislature delegated responsibility for preparing the state's Recreation Policy to the State Park and Recreation Commission. PRC section 540 directs the Commission to formulate, in cooperation with other state agencies, interested organizations and citizens, and recommend to the Director of CDPR for adoption, a comprehensive recreational policy for the State of California. The 2005 California Recreation Policy is intended to be broad in scope and considers the full range of recreation activities—active, passive, indoors and out-of-doors (CDPR 2005c). It is a comprehensive policy directed at recreation providers at all levels: federal, state, and local agencies, as well as private and nonprofit suppliers. The policy mandates opportunities and access to recreation activities for all activities and populations, while preserving natural and cultural resources.

8.1.2 Off-Highway Motor Vehicle Recreation Division

The OHMVR Division of CDPR promotes managed, environmentally responsible, and sustainable OHV use. OHMVR Division programs are carried out with the advisory oversight of the OHMVR Commission and are funded directly by the recreation community through gasoline taxes, green and red sticker fees, and entrance fees at SVRAs like Oceano Dunes SVRA. Consistent with its mission statement (see EIR section 2.2.1), the OHMVR Division provides education, training, and information to promote safe and environmentally responsible OHV recreation. Marketing and outreach conducted by the OHMVR Division promotes widespread understanding of environmental protection and safe and appropriate OHV recreation.

PRC section 5090.02 enumerates certain findings of the State Legislature with regards to OHV recreation, including its ever-increasing popularity and potential to have a deleterious impact on the environment if OHV recreation and access to non-motorized recreational activities is indiscriminate and uncontrolled. PRC section 5090.02(b) also sets forth the state Legislature's declaration that effectively managed areas and adequate facilities for the use of OHVs and conservation and enforcement are essential for ecologically balanced recreation. Accordingly, with passage of the OHMVR Act of 2003, the state legislature intended, in part, that: 1) Existing OHV recreational areas, facilities, and opportunities be expanded and managed to sustain long-term use (PRC § 5090.02(c)(1)); 2) New OHV recreational areas, facilities, and opportunities be provided and managed in a manner that sustains long-term use (PRC § 5090.02(c)(2)); 3) The OHMVR Division supports both motorized recreation and motorized OHV access to non-motorized recreation (PRC § 5090.02(c)(3)); and 4) When areas cannot be maintained to appropriate standards for sustained long-term use, they should be repaired to prevent accelerated erosion or closed and restored.

In addition, PRC section 5090.35(a) provides that protection of public safety, the appropriate utilization of lands, and the conservation of natural and cultural resources are of the highest priority in the management of SVRAs, and the OHMVR Division shall promptly repair and continuously maintain areas and trails and anticipate and prevent accelerated and unnatural erosion and other OHV impacts to the extent possible. The OHMVR Division shall also take steps necessary to prevent damage to significant natural and cultural resources within SVRAs.

SVRAs consist of areas selected, developed, and operated to provide OHV recreation opportunities. Areas must be developed, managed, and operated for the purpose of providing the fullest appropriate public use of the vehicular recreational opportunities present in accordance with the OHMVR Act, while providing for the conservation of cultural resources and the conservation and improvement of natural resource values over time (PRC § 5090.43 (a)). To protect natural and cultural resource values, CDPR may establish sensitive areas within SVRAs. If OHV use results in damage to any natural or cultural resources or damage within sensitive areas, appropriate measures must be taken to protect these lands from any further damage. These measures may include erecting physical barriers and must include restoring natural resources and repairing damage to cultural resources (PRC § 5090.43).

8.1.3 State Beaches and Seashores

PRC section 5001.6 sets forth that state park system units may be located within, and be a part of, a state seashore.

Section 5001.6(b)(7) of the PRC establishes the San Luis Obispo State Seashore, which comprises lands extending from Cayucos to Lion's Head, including Cayucos State Beach, Morro Strand State Beach, Atascadero State Beach, Morro Bay State Park, Montana de Oro State Park, Avila State Beach, Pismo State Beach, [Oceano] Dunes SVRA, and Point Sal State Beach.

The PRC defines state seashores as areas that "consist of relatively spacious coastline areas with frontage on the ocean, or on bays open to the ocean, including water areas landward of the mean high tide line and seasonally connected to the ocean, possessing outstanding scenic or natural character and significant recreational, historical, archaeological, or geological values" (PRC § 5019.62). The purpose of state seashores is to preserve the outstanding values of the California coastline and to make possible the enjoyment of coastline and related recreational activities (PRC § 5019.62).

The PRC defines state beaches to consist of areas "with frontage on the ocean, or bays designed to provide swimming, boating, fishing, and other beach-oriented recreational activities" (PRC § 5019.56(c)).

8.1.4 California Coastal Act

As described in greater detail in Chapter 4, Land Use and Planning, the California Coastal Act (PRC § 30000 *et seq.*) governs development within the Coastal Zone. One of the legislative findings and goals of the Coastal Act is to "maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners" (PRC § 30001.5).

Chapter 2, Section 30116 of the Coastal Act defines "sensitive coastal resource areas" to mean those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, including "areas possessing significant recreational value."

Chapter 3 of the Coastal Act, Coastal Resources Planning and Management Policies, sets forth the policies that constitute the standards for the adequacy of LCPs and development subject to the Coastal Act (PRC § 30200 *et seq.*). The applicable standards (or parts of standards) of this chapter related to recreation and public access are identified in Land Use and Planning, Table 4-1.

8.2 ENVIRONMENTAL SETTING

8.2.1 Regional Recreation Overview

Pismo State Beach and Oceano Dunes SVRA are two units of the California State Parks system, which consists of 280 classified park units and major unclassified properties (CDPR 2025b). A summary of the number of different parks in the state system, as well as the number of individual campsites and total attendance to these different parks, is provided in Table 8-1 Pismo State Beach has 185 designated campsites (Table 8-2), and Oceano Dunes SVRA provides 1,000 camping units (i.e., up to 1,000 camping vehicles are allowed per night anywhere within the open riding area; EIR section 8.2.3.2). The HCP area accounts for less than 1 percent of the land area in the state parks system, while accounting for 8 percent of the total available camping units (1,185 out of 14,131).

Table 8-1. Summary of State Parks System Units (Fiscal Year 2022/2023)[A]

Classification[B]	No. Units	Total Acreage[C]	Camp-sites[D]	Day Use Visitors[E]	Camping Visitors[F]	Total Attendance
State Park	89	1,189,933	5,665	26,090,679	2,464,787	28,555,466
State Beach	62	23,415	2,648	33,626,454	2,332,005	35,958,459
State Historic Park	53	32,635	92	6,720,193	11,307	6,731,500
State Recreation Area	33	182,020	3,912	7,134,208	284,136	7,418,344
State Natural Reserve	16	67,676	0	2,447,468	0	2,447,468
Unclassified[G]	15	13,990	0	215,934	0	215,934
SVRA	9	137,741	1,069	1,750,500	803,011	2,553,511
State Marine Park[H]	1	--	--	--	--	--
State Seashore[I]	1	1,860	0	0	0	0
Wayside Campground	1	66	0	19,153	0	19,153
TOTAL[J]	280	1,649,336	13,386	78,004,589	5,895,246	81,899,835

Source: CDPR 2025b

A) The fiscal year ran from July 1, 2022 to June 30, 2023.

B) These classifications do not include certain "internal" park subunits situated within the boundaries of other park units, including 61 Natural Preserves, 22 Cultural Preserves, and 12 State Wilderness areas.

C) Includes CDPR-owned lands and lands owned by others but operated by CDPR in the classification listed.

D) Campsite refers to individual family campsites and does not include group campsites. According to the CDPR Statistical Report for 2022/2023, individual and family campsites include primitive and developed campsites, including RV hookups, accessible by foot or vehicle. Most campsites are capable of accommodating up to eight people.

E) Day use visitor data reflect free and paid day use (non-overnight) visits.

F) Camping visitors represent overnight visitors that used individual or group campsites.

G) This line item reflects major unclassified units of the state parks system (14) plus two state marine reserves.

H) Data is included in State Seashore line item.

I) Data includes information for both state marine reserve (2 units) and state seashore (1 unit).

J) Totals may not add due to rounding.

Oceano Dunes SVRA is unique from a recreational standpoint because it is only one of two CDPR units that provides OHV recreation within the Central Coast Region, which generally comprises Santa Cruz, San Benito, Monterey, SLO, Santa Barbara, and Ventura Counties. The

other unit is Hollister Hills SVRA in San Benito County, which is more than 18 miles east of the Pacific Ocean. At the county level, there are no county parks, open space areas, or other recreation lands in Santa Cruz, San Benito, Monterey, SLO, Santa Barbara, or Ventura counties where OHV recreation is permitted.

The HCP area is also located within one of the largest and most unique remaining sand dune complexes in the State of California, the Guadalupe-Nipomo Dunes Complex. This dune complex is 20,000 acres (USFWS 2016c) in size and includes numerous parks (Table 8-2). These existing parks accommodate a wide range of recreation activities including hiking, camping, wildlife viewing, horseback riding, and motorized recreation.

Table 8-2. Public Recreation Lands at and Near the HCP Area

Park	Managing Agency	Recreation Activities Available	Size
Guadalupe-Nipomo Dunes NWR	USFWS	Hiking, fishing, wildlife viewing	2,553 acres
Pismo State Beach	CDPR	Camping, clam digging, fishing, hiking, horseback riding, shoreline vehicular access and recreation, swimming, wildlife viewing	1,515 acres 185 campsites
Oceano Dunes SVRA	CDPR	Camping, horseback riding, fishing, hiking, OHV recreation, surfing, swimming, wildlife viewing	3,490 acres 1,000[1] campsites
Coastal Dunes RV Park and Campground	SLO County	Camping, swimming, access to Pismo State Beach and Oceano Dunes SVRA	230 campsites
Oceano County Campground	SLO County	Camping, fishing, picnicking	22 campsites
Rancho Guadalupe Dunes County Park	Santa Barbara County	Hiking, wildlife viewing	612 acres

Sources: California Protected Areas Database, CDPR, OHMVR Division, USFWS, SLO County Parks.

Notes:

[1]Administratively reduced to 500 camping units due to closures for dust control and temporary closures during now-concluded CDP permitting and litigation.

8.2.2 Oceano Dunes District Visitor Attendance Data

Approximately two million people visit the Oceano Dunes District every year, engaging in pedestrian, camping, and motorized vehicle activities. In general, daily visitation to Oceano Dunes SVRA is lowest Monday through Thursday and highest on the weekend. Seasonally, visitation increases during the summer months (late May to early September) and is lower during the fall, winter, and spring, other than holiday weekends such as Thanksgiving and Christmas. In Fiscal Year 2022/2023, Pismo State Beach had 650,000 visitors and Oceano Dunes SVRA had 908,000 visitors (CDPR 2025b). This level of visitation has been fairly constant over the last decade with the exception of the 2020 park closure due to Covid-19 (see Table 2-2).

In 2012, the OHMVR Division undertook a research effort in collaboration with Department of Recreation, Parks, and Tourism Administration at California State University to measure visitor attendance at SVRAs and collect social data related to SVRA visitors. As part of the research effort, approximately 1,000 visitors to Oceano Dunes SVRA were surveyed regarding the characteristics of their visit. This survey found:

- 96.5% of survey respondents lived in California, with most of these in-state visitors coming from Fresno County (13.4%), Kern County (11.8%), Tulare County (9.6%), Los Angeles County (8.2%), San Luis Obispo County (7.3%), Kings County (5.6%), and Stanislaus County (5.1%).
- 87% of survey respondents traveled more than 50 miles to Oceano Dunes SVRA, with the overall average trip distance of 217 miles.
- 86% of survey respondents indicated they had camped at Oceano Dunes SVRA on their last visit, with an average stay of 4 nights.
- Camping at Oceano Dunes SVRA occurred in four main forms, including trailers/fifth wheels (48%), tents (24.4%), RVs (21.9%), and truck campers (4.9%).
- 18.6% of survey respondents indicated they had come to Oceano Dunes SVRA less frequently because of the economic recession, whereas most respondents indicated they had visited the same (48%) or more frequently (29.1%).

In 2016, the Oceano Dunes District retained Strategic Marketing Group (SMG) to determine the economic impact of the visitors to Oceano Dunes SVRA on San Luis Obispo County and its local communities (SMG 2018). As part of this study, SMG conducted an after-trip email survey of visitors to the Oceano Dunes District. As shown in Figure 8-1 Visitor Survey Responses – Recreational Activity Participation (2016/2017), the top three activities that survey respondents participated in were ATV riding (62%), enjoying a beach bonfire (57%) and enjoying the sunsets (56%). When survey respondents were asked if they would still visit San Luis Obispo County if Oceano Dunes SVRA was not in existence, 62% indicated they would not visit the county. This data suggests that Oceano Dunes SVRA provides a unique location and set of recreational experiences that are important on a local and regional level. The results of the CSU Sacramento study are generally consistent with the findings of the economic analysis conducted by SMG.

8.2.3 Pismo State Beach and Oceano Dunes SVRA Recreational Opportunities

The California Coastal Act defines "coastal-dependent development or use" to mean any development or use that requires a site on, or adjacent to, the sea to be able to function at all (PRC § 30101). CDPR considers beach- and dune-oriented recreational opportunities to be coastal-dependent recreation activities. San Luis Obispo County has a certified LCP that establishes recreation activities which may occur within the coastal zone consistent with the Coastal Act.[46] For the purposes of this EIR, coastal-dependent recreation activities at Pismo State Beach and Oceano Dunes SVRA include:

[46] San Luis Obispo County and the Coastal Commission ~~have jurisdiction over~~administer the Coastal Act in the HCP area and as such may or may not find these activities to be coastal-dependent uses.

- Non-vehicular recreational activities such as sand play, sunbathing, surf fishing, swimming (in the ocean), kite boarding and kayaking (in the ocean), marine wildlife viewing, and beach and coastal dune horseback riding
- Beach and coastal dune camping
- Beach and coastal dune vehicular recreation

As shown in Table 8-3, the HCP area comprises 5,005 acres of managed lands, the majority of which is managed for public recreation purposes. There are 875 acres located in the Oceano Dunes SVRA that are closed to all public access and recreation (see Figure 2-3); this area includes lands operated by the OHMVR Division but owned by Phillips 66, lands leased from the OHMVR Division for agricultural purposes, and the Corporation Yard. Pismo State Beach consists of 1,515 acres of managed recreation lands, all of which is open to the public though visitation of the 70-acre Pismo Lake area within the state beach is not encouraged due to lack of access points. As described in more detail in EIR section 2.1, the parks provide both vehicular and non-vehicular recreation opportunities.

Table 8-3. HCP Area – Public Recreation Opportunity and Access

Park	Total Size (Acres)	Pedestrian		Equestrian		Street-legal Vehicles		OHV	
		Open (Acres)	Closed (Acres)	Open (Acres)	Closed (Acres)	Open (Acres)	Closed (Acres)	Open (Acres)	Closed (Acres)
Pismo State Beach	1,515	1,515		1,413	101(A)	273	1,241(B)	208	1,306(C)
Oceano Dunes SVRA	3,490	2,615	875(D)	903	2,587(E)	~~1,097~~ 930	~~2,393~~ 2,560(F)	~~1,097~~ 930	~~2,393~~ 2,560(F)
TOTAL(G)	5,005	4,130	875	2,317	2,688	~~1,370~~ 1,230	~~3,634~~ 3,802	~~1,305~~ 1,138	~~3,669~~ 3,867

Source: OHMVR Division / MIG 2025

Notes:

(A) Pismo Lake, Golf Course, and Corporation Yard

(B) Pismo Lake, Pismo Dunes Natural Preserve, Pismo State Beach north of Grand Avenue

(C) Pismo Dunes Natural Preserve and all areas north of Post 2

(D) Corporation Yard, Phillips 66 leasehold and agricultural lease area

(E) Phillips 66 leasehold, agricultural lease area, and Oso Flaco area

(F) Phillips 66 leasehold, agricultural lease area, Oso Flaco area, vegetated islands, and northern portion of SVRA contiguous with Pismo Dunes Natural Preserve

(G) Totals may not add due to rounding.

8.2.3.1 Non-Vehicular Recreation

Non-vehicular recreation is allowed throughout all areas of Pismo State Beach and Oceano Dunes SVRA that are open to public recreation and include, but are not limited to, camping, pedestrian beach uses, dog walking and horseback riding, kite flying, sail sports, hiking, surfing/boating, and occasional bicycle riding. The acreages open to these uses are shown in Table 8-3 (also see Table 2-1). Non-vehicular recreation is particularly popular along the shoreline north of Grand Avenue and between Grand Avenue and Post 2. Non-vehicular

recreation is also popular in the Oso Flaco Lake area in the southern portion of Oceano Dunes SVRA, which includes a parking lot, boardwalk, and other small visitor-serving facilities.

Pismo Dunes Natural Preserve (see Figure 2-3), a 695-acre subunit of Pismo State Beach, provides opportunities for non-vehicular recreation, except swimming and other water-related activities because the Pismo Dunes Natural Preserve does not adjoin the beach. Walking trails traverse the preserve, but otherwise there are no visitor-serving facilities in the preserve.

Pismo State Beach contains a variety of visitor-serving facilities and infrastructure, including a visitor center, education center, golf course, campgrounds, RV facilities, and parking areas.

Each year, Pismo State Beach and Oceano Dunes SVRA host numerous organized non-vehicular events, including beach clean-ups, weddings, family reunions, corporate dinners, bonfires, surfing and other sporting contests, media events, video commercials, and commercial still photography. Examples of non-motorized special events that occur are briefly described below and listed in HCP section 2.2.1.11.

- *Concerts*. Events may include amplified music, vendors, and camping. Music and other activities may occur around the clock. These events are typically weekend events.
- *Group Campfires and Receptions.* Group campfires and receptions are frequently set up on the beach near the Grand Avenue entrance.
- *Sports.* Running and/or walking racecourses may traverse the beach and dunes. Other non-motorized sporting events include soccer, baseball, and kiteboarding tournaments and exhibitions. These events may include food vendors, music, and other entertainment. These events usually take place in Pismo State Beach and are generally single-day or weekend events.
- *Weddings.* Approximately 25 weddings are held at Pismo State Beach each year. Most weddings occur either in the foredunes and cypress grove near the golf course or near the Grand Avenue entrance within the non-motorized portion of the park. Weddings planned with bonfires or other fire sources are set up within the motorized portion of the park.
- *Video Production and Still Photography.* Video production and still photography "shoots" require permits and may occur anywhere in the HCP area, with approximately 35 to 40 shoots occurring every year. Filmed activities are almost always only those activities already allowed in the area used for the production. Filming by UAS is allowed on a case-by-case basis.

8.2.3.2 Beach and Coastal Dune Camping

Pismo State Beach has two traditional campgrounds (North Beach and Oceano) with a total of 185 designated campsites. Camping within Oceano Dunes SVRA and the portion of Pismo State Beach open to OHVs is largely a vehicle-dependent activity as campers are generally based out of vehicles driven onto the beach, and camping is only allowed within the open riding and camping area. This beach camping is limited by CDP 4-82-300-A5 to 1,000 registered campers[47]

[47] CDPR has administratively reduced the number of allowable campers to 500 due to closures for dust control and the temporary year-round closure of the Southern Exclosure in response to now-concluded CDP permitting and litigation. CDPR will implement shoreline closures as needed in the 48-acre foredune area to protect nesting SNPL and CLTE and chicks.

("campers" are based on each registered vehicle). There are no designated campsites; however, on a typical day most camping activity occurs near the beach, between Posts 2 and 6. During busy periods (holidays, weekends, and special events) camping activity can extend farther south and inland.

Importantly, many visitors engaging in non-OHV recreation, such as camping and beachcombing, also participate in OHV recreation (see HCP section 1.1.3.4).

Nearly all visitor-serving facilities at Oceano Dunes SVRA are located within the SVRA's open riding and camping area. These facilities include vault and chemical toilets, trash disposal areas, and mobile services provided by private concessionaires (e.g., drinking water delivery, holding tank pump-out, towing). Besides vehicle recreation, the ability to camp on the beach and dunes at Oceano Dunes SVRA is the significant recreational attraction. This primitive beach and dune camping also represents a very low-cost camping and recreation opportunity. The $10 fee is the lowest camping fee available within the Oceano Dunes District (North Beach and Oceano Campground fees range from $35 to $50).

8.2.3.3 Beach and Coastal Dune Vehicular Recreation

The Guadalupe-Nipomo Dunes Complex in general, and the HCP area specifically, has been a popular recreation destination for more than 100 years. Early photographs depict families enjoying the beach and dunes in horse-drawn carriages and bicycles, and motorized vehicles are known to have been driven on the beach as early as 1906 (OHMVR Commission 2014). Prior to approximately 1975, most of the land at and in the immediate vicinity of present-day Oceano Dunes SVRA was open to all forms of recreation, including vehicular recreation. At present, the area open to vehicular recreation and camping is a little over 1,200 acres (see Table 8-4).

Oceano Dunes SVRA operates under daily vehicle limits established by CDP 4-82-300-A5, which was approved in 2001. The permit establishes the following daily limits on vehicles within Oceano Dunes SVRA: up to 2,580 street-legal vehicles, 1,000 street-legal vehicles for camping, and 1,720 OHVs (CDP 4-82-300-A5). CDPR has been operating under administratively reduced day use vehicle (1,800), OHV (1,720), and camping permit (500 vehicles) limits due to closures for dust control and the 2021 temporary year-round closure of the 6, 7, 8, and Boneyard Exclosures during recently concluded CDP permitting and litigation. On summer and holiday weekends, actual levels of vehicle use have approached the daily limits set by CDP 4-82-300-A5; the visitation shown in HCP Table 2-2 reflects the recent administrative reductions in vehicle numbers. Visitation in future years adhering to CDP 4-82-300 A5 limits could be higher, reflecting actual levels of past use. Off-season and weekday use levels are typically less than half of summer weekend levels.

Table 8-4. Vehicular Recreation Lands in the HCP Area

Season	Street-Legal Vehicles Only[A]	Street-Legal and OHV Use + Camping	Total Vehicular Recreation Area
October to February	65 Acres	1,138 Acres[B]	1,203 Acres
March to September	65 Acres	838 Acres[C]	903 Acres

Notes:

(A) Area represents vehicle recreation lands between Grand Avenue and Post 2.

(B) Area represents vehicle recreation lands south of Post 2. This area generally is reported as the size of Oceano Dunes SVRA open riding and camping area. Note that in 2021 CDPR administratively closed this area year-round temporarily in response to now-concluded CDP permitting and litigation. The HCP anticipates the area will return to seasonal operation, consistent with actual past use, if such operation is consistent with the requirements of other programs (see HCP sections 2.2.1.1 and 2.2.5.5). CDPR will implement shoreline closures as needed in the 48-acre foredune area to protect nesting SNPL and CLTE and chicks. The open riding area available for camping is 1,134 acres due to year-round closure of foredune alleyways (transportation corridors) to camping.

(C) The seasonal reduction in vehicle recreation lands is due to the installation of fencing to protect SNPL and CLTE. This nesting exclosure reduces the amount of land open to vehicular recreation by approximately 300 acres from March 1 through September 30 each year.

The Oceano Dunes District controls and records vehicular attendance via entrance kiosks at Grand and Pier avenues. In the summer, the kiosks are open from 8 a.m. to 11 p.m. or midnight. During the off-season, the kiosks are open from 9 a.m. to 6 p.m. (or sunset if staff is available). Hours are extended during all holidays, with the Pier Avenue kiosk staying open 24 hours. Once the Grand Avenue kiosk is closed, visitors can only enter the park via Pier Avenue. Entrance is allowed even when both kiosks are unattended. Motorized use is allowed in the designated areas 24 hours a day. Except for emergency responders, all vehicles must obey a 15-mph speed limit at all times while on the shoreline and in camping and developed areas; no formal speed limit is in place in the dunes when away from occupied campsites.

Street-legal vehicles can operate on all designated roads within North Beach Campground, Oceano Campground, and in day use parking areas (HCP Map 3; Pismo State Beach, monarch butterfly grove, Oso Flaco). Motorized vehicles, other than those used by park personnel, are allowed off road only in designated areas (Figure 2-3). Street-legal vehicles can operate from Grand Avenue south for 6 miles down the coast to the southern boundary of the Oceano Dunes SVRA open riding and camping area. From Grand Avenue to Post 2, vehicle recreation is limited to street-legal vehicles only (see Figure 2-3). This area is designated as a day use only area and predominately used by people who want to drive their street-legal vehicles on the beach to enjoy beach activities and by visitors towing their vehicles into the interior of the park.

OHVs can only operate within the open riding area. OHVs must be transported to Post 2 or farther south before off-loading. The designated staging area at Post 2 is primarily used for parking for concessionaires and concessions activities. Camping is allowed throughout the open riding area since formal campsites are not designated. Motorhomes, vehicles towing trailers, and other camping vehicles thus move throughout the open riding area to access camping areas.

In general, the part of Oceano Dunes SVRA area open to street-legal and OHV recreation is bound by a perimeter fence on the north (adjacent to the Pismo Dunes Natural Preserve), south, and east. This fence prevents OHV recreation from occurring in unauthorized areas. Motorized vehicle use is prohibited year-round within the fenced vegetation islands occurring within the

riding area and seasonally prohibited (March 1 through September 30) within SNPL and CLTE nesting areas (Figure 2-7).

A well-traveled route known as the sand highway runs from south of Post 4 into the backdunes all the way to the southern boundary of the open riding area. The sand highway is marked with numbered signs for navigation (Figure 2-3). Within the dune area, OHV riders frequently gather at various locations including near Independence Hill, Boy Scout Camp, Maidenform Flats, and Competition Hill (Figure 2-3). Typically, these informal gatherings are comprised of 15 to 20 street-legal vehicles and 25 OHVs. A high of 75 to 100 vehicles has been observed informally gathered at Competition Hill. A small OHV training area is also located in the northern portion of the open riding and camping area.

Organized events with a focus on motorized recreation occur within the HCP area that is open to vehicles. Events may be formal competitions, organized non-competitive gatherings, or other events requiring the use of vehicles on the beach or dunes. Examples of motorized special events anticipated during the permit term are listed in HCP section 2.2.1.11. This list is not comprehensive.

- *Poker Runs.* Poker runs are non-timed, non-race, self-guided activities during which participants drive to checkpoints along a course within the open riding area. Such events may include a vending/registration/staging area, typically less than an acre, which is also located within the open riding area. These events are typically single-day events.
- *Hucking.* Competitive truck jumping or "hucking" involves an exhibition of trucks jumping off a gradual incline sand dune ramp with a flat landing area. Hucking events have been held at the Competition Hill portion of the open riding area. Other motorized exhibitions may also be included in hucking events. Such exhibitions will be expected to include space for vendors, camping, a stage, and other temporary event facilities closer to the beach. To date, these exhibition areas have been less than 10 acres. From initial setup to final cleanup, the overall event lasts less than a week; however, the exhibition itself lasts no more than 2 days.
- *Vintage Car Races.* Such events may include car displays, races of pre-World War II-era motorcycles and cars on the hard sand, a beach party, bonfire, and vendors. The race itself comprises two vehicles racing on a short (less than 1,000 feet) stretch of beach. Cars and motorcycles cross the finish line with an average maximum speed of 35 mph. These events are typically weekend events.

8.2.3.4 Special Event Permits

Organized special events hosted by outside agencies, businesses, and organizations may require a CDPR Special Event Permit, which must be approved by the Oceano Dunes District Superintendent. Special Event Permits describe the activity or event that is to occur, the estimated number of participants, the entry fee schedule, the items to be sold, the insurance requirements, and any special conditions placed on the activity or event by the District Superintendent.

The permit conditions include AMMs required to protect resources during the event. Specific AMM recommendations are based on past experience and dependent on the event location, timing, and potential to impact covered species. Permit conditions also ensure that events are planned to avoid sensitive resources, including by adjusting the timing and location of the event. For larger events, the Oceano Dunes District resource staff surveys the special event area prior to

the event to verify that no CLTE or SNPL are present. There is an internal protocol for smaller Special Event Permits (weddings, bonfires, family reunions, corporate dinners near Grand Avenue, etc.), requiring the resource staff survey and report any conflicts prior to the event. The Oceano Dunes District also ensures that none of these events result in exceeding vehicle limits established by the CDP (section III.3.a. and d. of CDP 4-82-300-A5).

The specific events that occur during the ITP term will vary. The examples included above illustrate the nature of permitted special events potentially occurring in the HCP area. All of these events could occur in any month of the year. These and other similar events are expected to continue during the permit term. The Oceano Dunes District does not issue Special Event Permits for events on the City-operated portion of Pismo State Beach.

8.2.4 Pismo State Beach and Oceano Dunes SVRA Access

Regionally, access to coastal southwestern San Luis Obispo County is primarily provided via State Route 1 and US 101. From San Luis Obispo to just north of Arroyo Grande, State Route 1 (Cabrillo Highway) and US 101 are a combined, four-lane highway (two lanes in each direction). Just north of Arroyo Grande, State Route 1 splits from US 101, running more westerly through Grover Beach and Oceano (see Figure 2-3). This segment of State Route 1 is a two-lane highway (one lane in each direction). Visitors coming to Pismo State Beach and Oceano Dunes SVRA from the north via the City of San Luis Obispo primarily exit US 101 at Hinds Avenue and travel along State Route 1 to Grand or Pier avenues. State Route 1 runs perpendicular to Grand and Pier avenues. Visitors coming from the south through Santa Barbara County exit US 101 at Grand Avenue or use State Route 1 through Oceano.

Pedestrian. North of Pismo Creek, visitors may walk into Pismo State Beach via a network of roads and stairways off Price Street (via Ocean Way, Wilmar Avenue, and Kon Tiki Inn) and from State Route 1 (via Cypress and Main) and the Pismo Beach Boardwalk along the beach between Main Street and Addie Street. South of Pismo Creek, visitors can access the beach from the Pismo State Beach North Beach Campground and Le Sage Drive. Visitors may also walk into Pismo State Beach and Oceano Dunes SVRA via Grand Avenue, Pier Avenue, points along Strand Avenue, and South Oso Flaco Lake Road. Grand Avenue has a large parking area that provides easy access to the beach and is therefore the most convenient access point for “walk-in” visitors.

Other non-motorized access is also available via River Road and Creek Road just south of the Oceano County Airport (where the private Pismo Dunes Ranch RV Resort is located). These non-motorized access points lead into Pismo Dunes Natural Preserve, a subunit of Pismo State Beach that adjoins Oceano Dunes SVRA. These access points are not close to the beach or open riding and camping area and are less popular than Grand and Pier Avenue access.

The Oso Flaco area located at the southern end of Oceano Dunes SVRA can be accessed from Oso Flaco Lake Road off of State Route 1. The road is narrow and terminates at the Oso Flaco Lake entrance station and parking lot. This access way is primarily used by hikers, nature walkers, and fishermen. This entrance point does not provide access to the Oceano Dunes SVRA open riding and camping area.

Visitors access Pismo Lake via “informal” access points, as CDPR has not designated access points to the lake.

Equestrian. Equestrian users primarily access the Oceano Dunes District through the Grand Avenue entrance at Grover Beach (due to the presence of an informal staging area) or from the

Pacific Dunes Ranch and RV Resort, which offers horseback riding and is located off Silver Spur Place just to the east of the Pismo Dunes Natural Preserve. Equestrian access in the Oso Flaco area was eliminated in 1991 for resource protection.

Vehicle. Public vehicle access to Pismo State Beach and Oceano Dunes SVRA is only via Grand Avenue in the City of Grover Beach or Pier Avenue in Oceano. These two entrances provide sand ramps that lead vehicles down onto the beach. Visitor data indicate that the Grand Avenue ramp provides access for approximately 51 percent of the visitors entering Pismo State Beach and Oceano Dunes SVRA. The portion of Grand Avenue west of State Route 1 is mostly undeveloped, although a restaurant is located at its western terminus, and the planned and approved Grover Beach Lodge and Conference Center site is located near the intersection with State Route 1. The ramp located at the foot of Pier Avenue in Oceano lies approximately 1 mile south of Grand Avenue. Commercial establishments line Pier Avenue leading to the entrance kiosk, and sidewalks are located on both the north and south side of the avenue.

8.3 PROJECT IMPACTS

8.3.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, the HCP would have a significant environmental impact related to recreation and public access if it would:

- 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, or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment.

In addition, CDPR has determined the project would have a significant environmental impact related to recreation and public access in the project area if it would

- Substantially limit, reduce, or interfere with established coastal recreational opportunities or public access.

CDPR proposed new activities (i.e., SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities [CA-12b]; stranded tidewater goby salvage [CA-13]; SWPT and WSF monitoring [CA-14]; dune slack restoration [CA-16]); invasive aquatic species predator control [CA-17]; mechanical trash removal [CA-21]; reduction of the Boneyard Exclosure and 6 Exclosure [CA-50]; and CDPR's use of UAS [CA-52]) would not increase use of existing neighborhood and regional parks or other recreational facilities. These activities would not result in changes to visitor use levels in the HCP area or surrounding area nor would they change camping or visitor use limits established by CDP 4-82-300. The proposed new project activities do not provide housing or otherwise contribute to population growth in the area by providing a significant number of new jobs, and therefore, it does not create an indirect demand for recreation at local parks. Therefore, this impact is not further discussed.

The proposed new project activities do not involve or entitle the construction of new or expanded recreational facilities. The new activities do not directly or indirectly increase population (by providing housing) or recreational users (by increasing camping or visitor limits established by CDP 4-82-300); therefore, the HCP does not require the construction of new recreational

facilities or indirectly require the expansion of any existing recreational facility. Therefore, this impact is not further discussed.

CDPR proposed activities of SNPL chick and egg capture for captive rearing (CA-12b), stranded tidewater goby salvage (CA-13), monitoring for SWPT and WSF (CA-14), dune slack restoration (CA-16) controlling invasive aquatic predators (CA-17), and using UAS (CA-52) involve data collection, monitoring, and resource management activities. None of these activities involve a change in visitor use within the HCP area. Thes activities would not impact recreational uses occurring in the HCP area and would not change or diminish access to coastal recreational opportunities. These activities would have no impact on coastal recreation opportunity and access and therefore the recreational impact of these activities is not further discussed in this EIR.

8.3.2 Established Coastal Recreational Opportunities and Public Access

Under the HCP, the OHMVR Division would largely continue existing operations and maintenance activities at Pismo State Beach and Oceano Dunes SVRA. CDPR proposes new project activities that do not involve any changes to the established camping or visitor limits established by CDP 4-82-300, nor do they reduce areas available for recreational use. For these reasons, the project would not substantially limit, reduce, or interfere with established coastal recreation opportunities in Pismo State Beach and Oceano Dunes SVRA.

Mechanical Trash Removal (CA-21). Mechanical trash removal is a temporary and transient maintenance activity to clean beach sand of debris. The mechanical trash removal would temporarily restrict portions of the beach during equipment activities. Mechanical trash removal would occur during the early morning hours (e.g., 6 a.m. to10 a.m.) prior to arrival of most visitors. The equipment is highly maneuverable and would move at a speed of 5 to 10 mph. Equipment operation would not create a public safety concern and would not cause a prolonged restriction in public access. Any restriction that does occur would be removed once the equipment operation is complete. One acre can be cleaned every 10 minutes. Two hours of work could cover roughly 12 acres. CDPR estimates that treatment of the Pismo State Beach day use and SVRA camping project area (Grand Avenue south to Post 6) would take about 22 hours. Some areas could be treated several times in a month during a busy season, whereas others only once or twice a year, if at all. Therefore, mechanical trash removal would not adversely affect existing recreational activities or opportunities. Nor would it impede access to the beach or ocean. Mechanical trash removal would have ***a less-than-significant temporary impact*** on coastal recreation opportunity and access and should ultimately benefit recreation through debris removal.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). CDPR proposes elimination of the East Boneyard Exclosure (47 acres) and incremental reduction of the 6 Exclosure (62 acres) subject to meeting SNPL and CLTE biological performance requirements for breeding and fledge numbers and in consideration of additional factors (HCP section 5.2.3; EIR 6.3.2). Exclosure reduction increments would also be subject to air quality performance standards specified in Mitigation Measures AIR-1 (EIR section 5.5). This exclosure reduction does not change the overall size of either Pismo State Beach or Oceano Dunes SVRA, and no change would occur to the camping or visitor limits established by CDP 4-82-300. Under baseline conditions, approximately 300 acres within the open riding area of Oceano Dunes SVRA are subject to seasonal exclosure during the 7 months of March through September. The proposed elimination of the 6 Exclosure and East Boneyard Exclosure would open up to 109 of the 300 acres to year-

round recreation. Access to 109 acres would be changed from seasonally available for 5 months (October through February) to being available year-round. This acreage expansion increases the coastal recreational opportunity for camping and vehicle recreation during spring and summer months when park visitation is at its highest levels. The elimination of the East Boneyard Exclosure would expand the area used for open sand dune riding area by 47 acres. The reduced 6 Exclosure would expand the flat beach area along the shoreline used for camping and OHV recreation by up to 62 acres. The increase in available shoreline during the summer season would reduce congestion in a heavily used area. Increasing the acreage available for year-round recreational use is a recreational benefit. The reduced Boneyard Exclosure and 6 Exclosure would have a ***beneficial impact*** on coastal recreational opportunities and public access**.**

8.4 CUMULATIVE IMPACTS

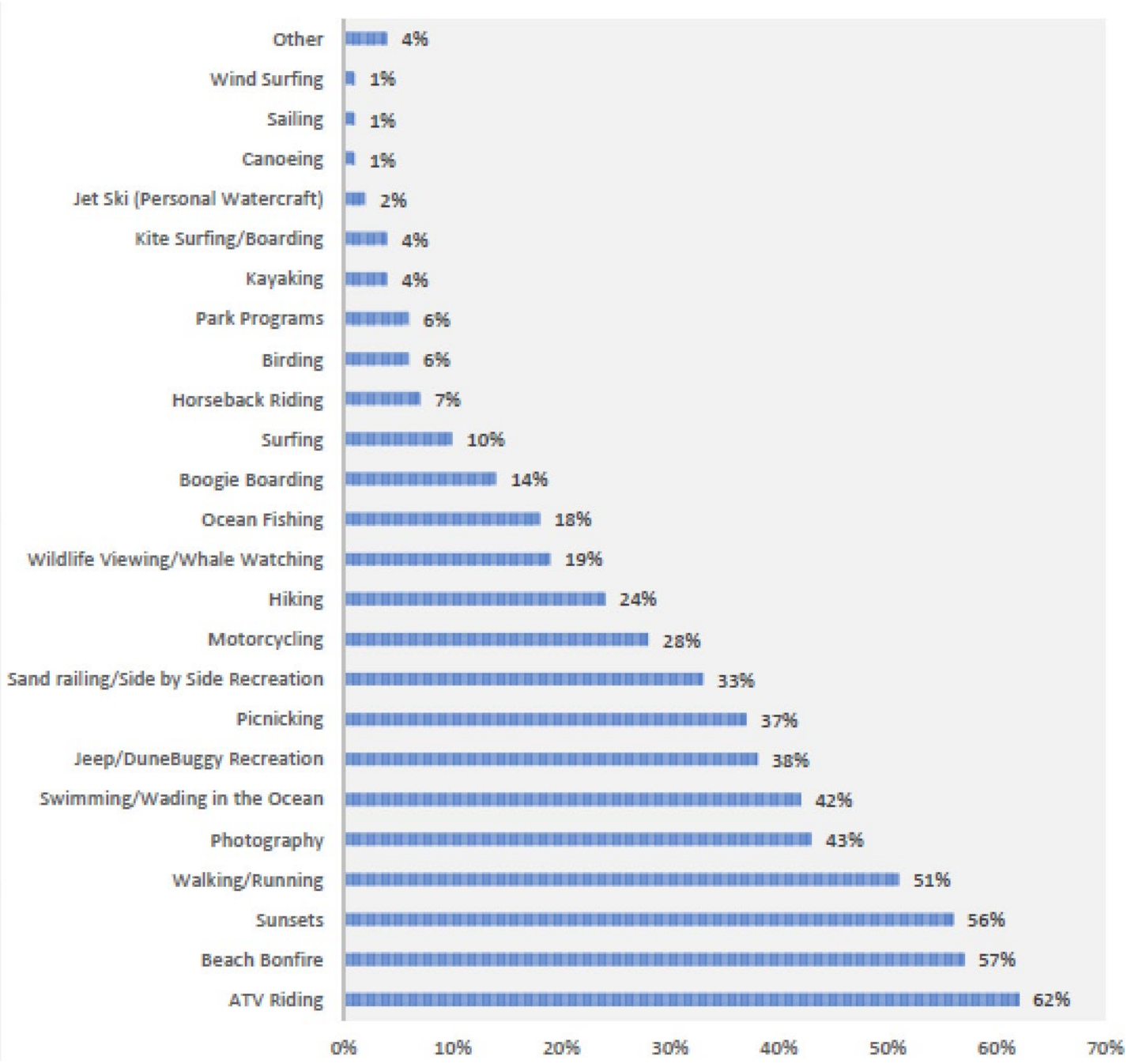
CDPR proposed new activities of SNPL chick and egg capture for captive rearing (CA-12b); stranded tidewater goby salvage (CA-13), monitoring for SWPT and WSF (CA-14), dune slack restoration CA-16), controlling invasive aquatic predators (CA-17), mechanical trash removal (CA-21), seasonal exclosure boundary changes (6 Exclosure and East Boneyard Exclosure; CA-50), and CDPR's use of UAS (CA-52) would not adversely impact recreation facilities, coastal recreation opportunity, or public access to recreation. As such, these activities would not contribute to impacts from other foreseeable projects listed in EIR section 3.3.3, including future potential activities covered by the HCP (EIR section 2.4.2.3), other CDPR project, or local agency projects to incrementally increase recreational impacts. Potential future activities, including new dust control activities that would expand the footprint of dust control measures beyond acreage limits previously established, would be subject to separate CEQA review, and potential impacts to recreation would be considered under separate CEQA documents (see EIR section 2.5).

In addition, CDPR proposed new activities do not have the potential for significant adverse effects due to new or expanded recreational facilities, nor would these activities restrict coastal public access or coastal recreation. The proposed reduction in the seasonal exclosure boundary would increase recreational opportunities by providing opportunity to increase year-round recreation on up to 109 acres of open riding area that is presently closed to recreation for 7 months of the year. Therefore, CDPR proposed new activities would make no contribution to a cumulative adverse effect on coastal recreational opportunity or public access. The proposed project would have ***no cumulative impact*** on coastal recreational opportunities and public access.

8.5 MITIGATION MEASURES

No significant impacts to recreation and public access have been identified for the project based on the analysis contained in EIR sections 8.3 and 8.4 above. No mitigation is required.

Recreation Participation within Oceano Dunes District



Source: SMG 2018

Figure 8-1 Visitor Survey Responses
Recreational Activity Participation (2016-2017)

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CHAPTER 9. ALTERNATIVES

CEQA Guidelines section 15126.6(f) states that an EIR shall describe a range of reasonable alternatives to a project or location of the project that would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects of the project. An EIR's discussion of alternatives does not need to consider every conceivable alternative but must foster informed decision making and public participation. CEQA intends for the alternatives discussion to focus on alternatives that are capable of avoiding or substantially reducing any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives. Section 2.3.2 lists the following objectives for the proposed project:

- Avoid, minimize, and mitigate the effects of take of the covered species.
- Implement biological goals and objectives for covered species (HCP section 5.5) to promote species and habitat conservation.
- Obtain a permit from the USFWS to authorize incidental take of covered species and ensure FESA compliance.
- Operate the covered park units in a manner that provides for public use and enjoyment while conserving park resources, consistent with the overall mandate of CDPR and the specific unit classifications, as prescribed by the PRC.
- Preserve, manage, and expand, as appropriate, motorized and non-motorized recreational opportunities.
- Manage, maintain, and maximize, as appropriate, access to the unique coastal camping and recreational amenities in the HCP area.
- Facilitate implementation of permit, legal settlement, and judicial or quasi-judicial order conditions and obligations applicable to one or both covered units.

An EIR is not required to consider alternatives that are infeasible (CEQA Guidelines § 15126.6(f)). A Lead Agency is responsible for selecting the range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. Factors that may be taken into account when considering feasibility include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site.

9.1 CONSIDERED AND REJECTED ALTERNATIVES

An EIR should identify any alternatives that were considered by the Lead Agency but were not compared to the proposed project in the EIR and briefly explain the reasons underlying the Lead Agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in the EIR are: 1) failure to meet most of the basic project objectives (see above); 2) infeasibility; and 3) inability to avoid significant impacts. Below is a discussion of alternatives considered and rejected by CDPR based upon one or more of these factors.

9.1.1 No Take Park Operations

Oceano Dunes District manages 5,005 acres of state beach and SVRA land receiving approximately 2 million visitors annually. Four federally- and/or state-listed animal species, six federally- and/or state-listed plant species, and two animal species that are federally proposed as threatened occur or have the potential to occur within the HCP area. Although plants are not subject to the FESA take prohibition, loss of listed plants is considered for the purposes of evaluating this No Take Alternative.

The purpose of the No Take Alternative would be to modify park operations in order to substantially eliminate activities that have moderate to high potential for risk of take in the areas where the species occur. During the nesting season, CLTE and SNPL mostly congregate along the shoreline in primary habitat south of Post 6 but could be reasonably expected to occur in any of the 698 acres of primary habitat in the park south of Post 1. SNPL is more widely dispersed during the winter season (CLTE does not winter in the HCP area). Documented incidents of CLTE and SNPL take (mortality, injury, harassment) have occurred from vehicle strike, visitor disturbance, and from park management (see Table 6-6 and Table 6-7). SNPL take can occur year-round, and because SNPL range far beyond the area protected seasonally by the Southern Exclosure, take potential is not limited to the protected nesting habitat after fencing is removed. There are two reported incidents of SWPT take (one from an OHV recreationist moving an SWPT found in the riding area out of harm's way and one caught on a fishing hook). There have been no documented incidents of CRLF or WSF take. Up to three tidewater goby individuals are known to have been harmed during permitted fisheries surveys; none are known to have been taken from other covered activities. For all species, it is assumed that some level of unseen take could occur from park operations (see, e.g., HCP Table 4-1).

Closure of all primary and secondary habitat to park visitor use south of Grand Avenue would likely be required in order to avoid habitat disturbance and the potential for take of SNPL, CLTE, and SWPT from vehicle strike (HCP Maps 11 and Map 13), pedestrian activities, fishing, holidays, and special events. This closure would eliminate access to the entire open riding area, resulting in a severe modification of park operations and complete loss of motorized coastal access, and it would not eliminate the potential for take from non-motorized uses or from any CDPR vehicles needed to enter the area for park operations. Under this alternative, the loss of shoreline access for visitor use would be permanent. Such closure is incompatible with the recreational purpose of the SVRA and CDPR's mandate to develop, manage, and operate the SVRA for the purpose of providing the fullest appropriate public use of the vehicular recreational opportunities present, while providing for the conservation of cultural resources and the conservation and improvement of natural resource values over time (PRC § 5090.43 (a)). This alternative would also fail to meet project objectives of providing for public use and enjoyment and preserving, managing, and expanding recreational opportunities as appropriate and while conserving park resources. The conservation program laid out in the HCP has successfully and substantially increased the breeding population of SNPL and CLTE, demonstrating CDPR's ability to conserve park resources and improve natural resource values while providing motorized coastal access and recreation.

If new access to the southern portion of the park is developed, it is possible that vehicle recreation in approximately 800 acres of sand dunes (non-primary CLTE and SNPL habitat) in the SVRA could be preserved for vehicle recreation in an area where take is unlikely to occur. As discussed in EIR section 9.1.3.2, southern access was previously studied and determined to

have greater impacts than the current vehicle shoreline access from the north, but future studies may identify improved access options.

In addition to incidental take from park operations, recreation, etc., the conservation program described in the HCP, which is designed to protect, monitor, and enhance the species and their habitat, also carries inadvertent risk of take associated with some of these activities that can be minimized but not completely avoided. A "no take" alternative could reduce or eliminate beneficial conservation activities included in the HCP, especially those that are not covered by the recovery permit such as installation of non-climb predator fencing, other habitat fencing, invasive plant and animal control, etc., as it is unknown whether CDPR could continue to fund such an intensive conservation program in a non-motorized recreation area. The value of these activities to species conservation far outweigh the take risk. Discontinuing conservation program activities in order to avoid take associated with those activities is incompatible with park conservation goals and protection of natural resources.

Short of park closure or substantial reduction in visitor access and discontinuation of many of the conservation program activities, the potential for unauthorized take would still exist. To the extent CDPR continued all or part of the conservation program, it is assumed that CDPR would seek authorization via the 10(a)(1)(A) recovery permit, which would not eliminate take but would ensure species management take was consistent with FESA requirements. Even with continuation of all or part of the conservation program, the severity of reduction in recreation opportunity that would be required in order to eliminate the possibility of the remaining incidental take makes this alternative infeasible, and therefore it is rejected from further consideration.

9.1.2 Off-site Mitigation in lieu of Nesting Exclosures

Off-site mitigation in lieu of nesting exclosures is a management strategy that redirects all or part of the species conservation effort in the HCP area to off-site locations where protected species habitat and recreation uses are not in conflict. Potential locations appropriate for consideration would include areas known to contain primary species habitat and capable of supporting populations at levels that would offset the loss of nesting habitat acreage and take impacts from less restricted park recreation. This strategy would be an alternate approach to the park's existing conservation program, which seasonally closes off 300 acres of highly productive on-site primary SNPL and CLTE nesting habitat within the open riding area.

An off-site conservation approach does not reduce the potential for take within the HCP area associated with the covered activities. Complete elimination of seasonal nesting exclosures would remove fencing currently protecting nesting SNPL and CLTE from visitors and predators and likely result in a substantial take increase, reduced nesting attempts, and significantly lower breeding productivity and on-site populations. Loss of a robust population of SNPL and CLTE at this location could reduce its contribution to species regional recovery units. The proposed HCP does include some reduction in the size of seasonal nesting exclosures (CA-50), but only to the extent such reduction does not damage the effectiveness of the conservation program, which is designed to maintain the success of on-site breeding.

To create an off-site mitigation area in lieu of all or part of the existing nesting exclosures, an unknown number—but presumably hundreds of acres—of suitable and equally productive off-site habitat would have to be located and targeted for in-kind replacement of nesting habitat no longer seasonally protected in the HCP area. The habitat would need to be within SNPL Recovery Unit 5 and preferably within CA-83. Off-site mitigation in lieu of the existing nesting

exclosures would eliminate a successful conservation program that CDPR has slowly built over the last 2 decades in favor of an unproven program at a new location. It is possible that CDPR could attempt to expand or improve success of an established off-site breeding colony. Even if suitable property could be located and all agreements negotiated, there is no guarantee that breeding success of CLTE and SNPL occurring in the HCP area could be replicated off site. The risk is especially true for CLTE, which exhibits a high degree of site fidelity. As described in HCP section 3.3.2.5, the HCP-area CLTE breeding colony has become an important component of CLTE recovery.

An off-site conservation location would introduce new risk to species conservation and also new investment costs to CDPR for property search, technical studies, and property management or partnership with the landowner and resource agencies. Such costs could be reduced if suitable mitigation land could be found on existing CDPR property. Although this alternative better meets CDPR's objective to preserve, manage, and expand, as appropriate, motorized and non-motorized recreational opportunities, it likely would not succeed in conserving park resources consistent with the PRC. Specifically, by transferring all or part of the SNPL and CLTE breeding value off site, CDPR may not be providing for the conservation and improvement of natural resource values within the HCP area (see PRC § 5090.43 (a)). Given the uncertainty of success, new costs, increased risk of impact to on-site CLTE and SNPL populations, and the remaining need for a take authorization, this alternative is rejected from further consideration.

In conjunction with, or in lieu of, off-site mitigation, CDPR could attempt to manipulate habitat within South Oso Flaco to create additional SNPL and CLTE breeding habitat within the HCP area. Any SNPL and CLTE nesting in this new habitat would be farther away from areas heavily used for recreation and completely away from motorized use areas. Based upon habitat management work already done within the HCP area, including restoring approximately 180 acres in South Oso Flaco degraded by European beach grass, CDPR has determined that efforts short of major habitat modification would be unlikely to attract substantial numbers of breeding SNPL or CLTE to fully replace the breeding population in the current conservation area. Even with major modification, such as leveling the foredune complex, SNPL and/or CLTE may remain in current nesting habitat or may expand into the new area without abandoning the existing habitat. Given the extensive modification of sensitive dune habitat that would be involved and the uncertainty of any meaningful reduction in take potential, this alternative is also rejected from further consideration.

9.1.3 Changes in Oceano Dunes SVRA Access

9.1.3.1 Install Bridge Over Arroyo Grande Creek

Motorized vehicle creek crossing is a covered activity (CA-40) presently occurring at the park. Under this alternative park operation, a temporary vehicle crossing structure would be erected over Arroyo Grande Creek at times when the creek flows connect to the ocean. There is a small possibility that vehicles crossing Arroyo Grande Creek could kill or injure tidewater goby if the vehicles were to cross the creek during a high-flow, winter flood event, which is when tidewater goby may be migrating through the creek mouth. Tidewater goby wash out in high flows and come back during lower flow, but this is a rare event. Vehicles attempting to cross heavy creek flows can become stuck or washed toward the ocean. These vehicles could also leak fluids into the creek. Under current and proposed operations, however, vehicular crossing of Arroyo Grande Creek is prohibited or severely limited during high flows and when creek depths at the crossing site are more than 12 inches deep. As a result, vehicles are not anticipated to kill or injure

tidewater goby. Furthermore, the alternative would not reduce the potential for take of SNPL and CLTE associated with park visitor use and operations or otherwise reduce impacts of the proposed new project activities. The bridge would enable continued access south of the creek when creek flows have become unsafe for crossing, thereby allowing access to the SVRA at a time it would otherwise be closed. This alternative has been previously studied by CDPR (Condor, Environmental Planning Services Inc. 2006), however, and was determined not to be viable. A more recent CDPR evaluation again determined such a bridge would be operationally and financially infeasible. It is rejected from further consideration as an access alternative in the HCP.

9.1.3.2 Alternate Access Route

CDPR previously evaluated developing alternative vehicle access at the southern end of the park in 1991 (CDGS 1991) and again in 2006 (Condor, Environmental Planning Services Inc. 2006). The 1991 study investigated five alternative access points, of which one was chosen as the least environmentally damaging corridor and the preferred alternative. This alternative is the Grand Avenue corridor; it had less-than-significant impacts on all resources considered in the study and required no mitigation measures. The expansion of the Pier Avenue entrance was the second least damaging, and it also had less-than-significant impacts on all resources considered in the study. Other alternatives considered were located at Railroad Road, Silver Spur Place, and Callender Road.

The 2006 analysis presented a comprehensive analysis of six alternative routes in addition to the two existing access corridors at Grand Avenue and at Pier Avenue. The options included three access corridors at the north end of the beach (Ocean Street, Creek Road, or Silver Spur Place) and three at the south end of the park (ConocoPhillips, Little Oso Flaco Lake, or Oso Flaco Lake). Extensive environmental impacts were associated with the construction of new alternative access roads, such as impacts on wildlife and plant life, traffic, cultural resources, and the visual character of the area. Therefore, the report recommended against constructing any new roads based on the conclusion that the existing two access corridors at Grand Avenue and Pier Avenue were the best means for providing vehicular access to the beach.

Both the 1991 and 2006 studies determined alternative access was feasible, but the optional routes would have involved greater impacts than the current impact of using the existing northern access route. For this reason, an alternate access route to Oceano Dunes SVRA was rejected from further consideration as an access alternative in the HCP. Based on the available information, this alternative was eliminated from further consideration as it would not facilitate project objectives or reduce impacts of the proposed project. Future studies evaluating alternative access approaches may identify a less impactful southern access route, determine impacts can be avoided, or conclude that conditions otherwise warrant a southern access route. If alternate access becomes feasible and is proposed, it could be included in the HCP through an amendment.

9.1.4 Restricted Riding Times

9.1.4.1 Night Riding Closure

Motorized vehicle use at Oceano Dunes SVRA may occur at any time of day or night without riding hour restrictions. Oceano Dunes SVRA is a camping area, and providing access to the park obligates allowing vehicles to move around 24 hours a day. The public has a legal right to leave their campsites at any time. Enforcement of night riding restrictions on OHVs or street-

legal vehicles would require year-round overnight patrols throughout the permit term, which are outside the currently allocated resources of CDPR.

Nighttime riding has been previously evaluated by CDPR for potential effects on SNPL (Mad River Biologists 2005). The study found there is a higher degree of reaction to an approaching vehicle at night than day probably equating to a lower risk of collision. Birds were more likely to respond to an approaching vehicle with flight during the night than during the day. Birds reacted to a spotlight from vehicles before reacting to the vehicle itself. The study was inconclusive regarding an elevated risk of take from nighttime riding, and it is unknown how many, if any, shorebirds are struck by vehicles at night. CDPR is undertaking a multi-year nighttime study as outlined in the Biodiversity Management Plan to evaluate the effects of nighttime vehicle use. Nighttime riding will be prohibited during half of the nighttime study.

Even if feasible, prohibiting nighttime riding would not eliminate potential take of CLTE and SNPL from motor vehicle recreation and would not resolve CDPR's need for authorized take pursuant to an ITP. AMMs such as protection of night roosting, seasonal exclosure protection of nighttime foraging, and distribution of educational pamphlets and social media posts directed at park visitors are in place to reduce potential effects related to night riding. Vehicles traveling at night could impact dispersing SWPT, CRLF, or WSF, but this impact is very unlikely due to low populations of these species and the poor quality of the open riding area as SWPT, CRLF, or WSF habitat. Nighttime vehicle use would not impact tidewater goby. As a result, restricting nighttime vehicle use would not likely reduce any potential take impacts of the HCP covered species from the proposed new activities.

Additionally, because nighttime riding is less prevalent than daytime riding and occurs within the same areas disturbed by daytime riding, eliminating night riding is unlikely to affect particulate emissions.

The proposed new covered activities do not create a potentially significant impact due to changes in nighttime riding patterns. Given that prohibiting nighttime vehicle use is not operationally feasible over the life of the permit term, is unlikely to substantially reduce environmental effects of the new covered activities (e.g., air quality emissivity levels and increased risk of take of SNPL and CLTE), and does not meet several project objectives (e.g., avoid, minimize, and mitigate effects of take of the covered species; preserve, manage, and expand, as appropriate, motorized and non-motorized recreation; manage, maintain, and maximize, as appropriate, access to the unique coastal camping and recreational amenities in the HCP area), the nighttime riding restriction is rejected from further consideration.

9.1.4.2 Seasonal Closure to Motorized Recreation

The Seasonal Closure to Motorized Recreation Alternative is a variation of the No Take Alternative. Rather than permanently closing areas of the SVRA, this alternative would close large portions or all of the SVRA to motorized recreation and camping either during the March 1 through September 30 breeding season or the October 1 to February 28 non-breeding season (when SNPL take still occurs). The purpose of this alternative would be to reduce the activity generating the highest risk of take to covered species.

Approximately 300 acres of the open riding area are already seasonally closed to all recreation access for 7 months out of the year to provide protected nesting habitat for CLTE and SNPL. This seasonal closure area (i.e., the Southern Exclosure) protects the most valuable and productive CLTE and SNPL breeding habitat within the HCP area. Temporal closure of the entire open riding area to motorized recreation and camping would unnecessarily prohibit public

access on an additional approximately 800 acres of the HCP area. Much of this closure area would not be primary CLTE or SNPL habitat; any resulting benefits of increasing breeding or reducing take would thus be very limited in contrast to the loss of camping and other recreation access.

Although the breeding season closure to camping and motorized recreation could cause some reduction in CLTE take below the levels afforded by the proposed HCP, it would not eliminate take and could not resolve the need for an ITP. As with CLTE, breeding season closure of the park to camping and motorized recreation would have a limited effect on reducing SNPL take beyond the protection afforded by the proposed HCP. Non-motorized recreation would still be allowed outside of the seasonal Southern Exclosure. It would not resolve the need for an ITP given that take could still occur due to non-motorized recreation and other covered activities such as park management. Furthermore, SNPL occurs within the HCP area year-round and is widely dispersed during non-breeding months. A breeding season closure would thus not eliminate SNPL incidental take during the non-breeding season. The breeding season closure would also have limited effect on the potential for take of other covered species, such as SWPT.

A non-breeding season closure would not address CLTE take at all since CLTE does not winter in the HCP area. A non-breeding season closure would reduce take of SNPL, since SNPL occur year-round, and SNPL take has occurred during the non-breeding season (see HCP Table 4-1). It would not, however, eliminate SNPL take and thus would not eliminate the need for an ITP because non-breeding season SNPL take could still occur due to other covered activities such as park management, and SNPL and CLTE take could also still occur during the breeding season. Further, the non-breeding season closure would also have limited effect on the potential for take of other covered species, such as SWPT.

The extent of any take reduction would depend in part on the extent of the closure. For example, closing off the entire shoreline to vehicles, including closing the area between Grand Avenue and marker Post 2 that is currently open to street-legal vehicles only, would likely cause a greater reduction in SNPL take. Such a closure, however, would also greatly affect not only OHV recreationists but also visitors using motorized vehicles to access non-motorized recreation, such as for surfing, fishing, or shoreline access for people with mobility limitations. Similar to the No Take Alternative, the impact of the Seasonal Closure to Motorized Recreation Alternative upon recreation access would be substantial and would not meet CDPR's mandate to develop, manage, and operate the SVRA for the purpose of providing the fullest appropriate public use of the vehicular recreational opportunities present, while providing for the conservation of cultural resources and the conservation and improvement of natural resource values over time (PRC § 5090.43 (a)).

The effect of a seasonal closure on particulate emissions is unclear since the area subject to seasonal closure would still be used for motorized recreation at other times.

This alternative would also fail to meet project objectives of providing for public use and enjoyment and preserving, managing, and expanding recreational opportunities as appropriate and while conserving park resources. Given the documented stability of the CLTE and SNPL population levels existing in proximity to motorized recreation in the HCP area, seasonal closure of the SVRA whether in greater measure or in its entirety is unwarranted due to recreation access impacts and is rejected from further consideration.

9.1.5 Increased Vehicle Use Limits

In 2001, the Coastal Commission amended CDP #4-82-300 establishing daily limits on vehicles within Oceano Dunes SVRA: up to 2,580 street-legal vehicles, 1,000 street-legal vehicles for camping, and 1,720 OHVs, which is consistent with a carrying capacity study completed in 1998 (CCC 2001). The CDP limits were intended to be interim, but given that the limits have been in place for over 2 decades, CDPR has considered them to be baseline conditions (CCC 2001). More recently, in response to closures for dust control and the 2021 temporary year-round closure of the 6, 7, 8, and Boneyard Exclosures, CDPR administratively reduced the number of available day use vehicles (1,800), OHVs (1,7200), and camping units (500). An increase in daily vehicle limits or camping limits without a corresponding increase in recreation acreage would compress vehicle recreation and camping into a smaller space at a higher concentration. The increase in vehicle use numbers could increase the risk of take of SNPL and CLTE and could necessitate an increase in the proposed HCP take limit of these species, although an increase in take may be avoidable given the HCP's extensive conservation program.

This alternative is consistent with the project objective to preserve, maintain, and expand, as appropriate, motorized and non-motorized recreational opportunities. However, an increase in OHV limits would not serve the HCP conservation goals of species protection and population enhancement. Increasing camping limits would also not be consistent with the recent reduction in allowable camping vehicles due to riding and camping area closures. At some point in the future, CDPR could seek to adjust vehicle use limits, but no change is proposed by CDPR, and no change has been identified that would achieve project objectives better than the proposed HCP. A formal carrying capacity study and any resulting changes to vehicle, camping, or other visitation numbers is beyond the scope of the HCP and this EIR. Given that this alternative does not avoid or substantially reduce environmental impacts (e.g., potentially significant risk of take of covered species), this alternative is rejected from further consideration.

9.2 ALTERNATIVES CONSIDERED

Pursuant to CEQA Guidelines section 15126.6, the rationale for selecting the alternatives presented in this EIR is to attempt to feasibly attain most of the basic project objectives while avoiding or substantially lessening the significant effects of the project. As summarized in Table S-1 and described in corresponding EIR section 5.3, the proposed new HCP covered activity CA-50 would have potentially significant impacts on air quality that require mitigation. The alternatives presented below focus on substantially reducing or eliminating the impacts of this covered activity.

9.2.1 Alternative 1: No Project Alternative

9.2.1.1 Alternative Description

CEQA Guidelines (§ 15126.6(e)) require evaluation of a "no project" alternative along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the "no project" alternative is the continuation of the existing plan, policy, or operation into the future. In this situation, the projected impacts of the proposed plan or alternative plans are compared to the impacts that would occur under the existing plan (§ 15126.6(e)(3)(A)). The impact of the no project alternative is analyzed by

projecting what would reasonably be 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.

Under this alternative, the USFWS would not issue an ITP for Oceano Dunes District parklands. Incidental take of SNPL, CLTE, CRLF, and tidewater goby that may occur from visitor uses and park operations, whether occurring presently or in the future, would be unauthorized, leaving the violation of FESA unresolved. CDPR would maintain its current park operations and continue implementation of its current conservation program including its annual strategy to avoid take. Changes proposed by CDPR, including SNPL chick and egg capture for captive rearing when eggs and chicks are observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic predator control (CA-17), mechanical trash removal (CA-21), reduction of the East Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR's use of UAS (CA-52) would not occur. The existing adaptive management process employed by CDPR would be kept in place. CDPR would continue to enforce regulations and voluntarily implement AMMs identified in the HCP section 5.2.3 (see AMM list in EIR Appendix B) to prevent take of SNPL, CLTE, CRLF, and tidewater goby and impacts to listed plants during covered activities; CDPR's commitment to funding and implementing the conservation program absent the ITP would be non-binding.

Future activities that may be proposed by CDPR, such as those identified in the HCP and in Table 2-4, that may require take authorization would require individual review and permitting by USFWS rather than occurring in one comprehensive review under the proposed HCP. CDPR would submit individual permit applications to USFWS as projects are proposed.

9.2.1.2 Environmental Analysis

Land Use. The No Project Alternative would have no impact on land use. The HCP does not propose a change in land use of the park property or conflict with land use policy. The current land uses of the park would remain unchanged by the proposed HCP.

Air Quality. Under the No Project Alternative, no changes would occur to the seasonal exclosure boundary. As a result, the potential increase in dust emissivity associated with increased vehicle recreation in the East Boneyard Exclosure and 6 Exclosure (CA-50) proposed by the project as described in EIR section 5.3 would not occur. There would be no potential increase in contribution to exceedance of $PM_{2.5}$ or PM_{10} ambient air quality standards downwind of Oceano Dunes SVRA. Project Mitigation Measure AIR-1 would not be required or implemented.

Biological Resources. Under the No Project Alternative, SNPL chicks and eggs observed threatened by covered activities not related to covered species management would not be captured for captive rearing (CA-12b; AMM 22). These chicks and eggs would be protected with single-nest exclosures and monitored but would otherwise remain vulnerable to take if chicks or eggs have been abandoned or are located in an area where travel to the shoreline for foraging exposes them to vehicle strike. Actions proposed in the HCP to offset take impacts to SWPT, CRLF, WSF, and tidewater goby through salvage (CA-13)), monitoring (SWPT and WSF CA-14), dune slack restoration (CA-16), and invasive aquatic predator control (CA-17) would not occur. Mechanical trash removal (CA-21) and its potential impacts upon the invertebrate population prey source for foraging shorebirds would not occur. No change to the seasonal exclosure (CA-50) would be implemented. Potential project decreases in nesting productivity

associated with the incremental loss of protected prime CLTE and SNPL nesting habitat in the 6 Exclosure would be avoided. Conservation program activities that disturb federally-listed species either directly (e.g., surveys, dip-netting surveys, etc.) or indirectly (predation of nests/chicks in exclosures, fence strikes, etc.) would continue and could result in authorized take similar to the proposed HCP, assuming CDPR retains 10(a)(1)(A) recovery permit authorization. Chick banding of SNPL occurs under an existing recovery permit and would presumably continue under the No Project Alternative as an authorized activity. Similarly, any ongoing impacts to covered or special-status species as described in this EIR caused by existing park visitor activities, natural resources management, park maintenance, visitor services, and other previously approved covered activities would continue. To the extent ongoing activities require periodic permit approval, such as tidewater goby and salmonid surveys, those activities and any resulting effects would only occur so long as the activity has permit authorization. The No Project Alternative would not cause new adverse impacts to either the covered or special-status species.

Under the No Project Alternative, CDPR might expand its protection of covered species (e.g., increasing monitoring) as funding and resources allowed. Without the CDPR funding commitments mandated by the ITP, however, some of the funding currently used to implement the rigorous monitoring and predator control programs could be redirected to other operations and needs within the Oceano Dunes District. This could interfere with CDPR's ability to successfully implement AMMs and could reduce overall breeding success and/or leave covered species vulnerable to injury or mortality in the HCP area.

Cultural Resources. Under the No Project Alternative, CDPR actions potentially occurring in culturally sensitive areas, including dune slack restoration (CA-16) and reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) would not occur. Mechanical trash removal (CA-21) which is ground disturbing but unlikely to impact cultural resources due to avoidance of known culturally sensitive areas, would also not occur. The impact on cultural resources from these activities was determined to be less than significant. Under the No Project Alternative, these less-than-significant impacts would not impact cultural resources.

Recreation and Public Access. Under the No Project Alternative, CDPR would continue to operate the park using existing visitor use boundaries and restrictions. No changes would occur to the present boundaries of the 6 Exclosure (62 acres) and East Boneyard Exclosure (47 acres), including restrictions on camping and parking within 100 feet of the exclosure fence. Recreation on 109 acres within these two exclosures would continue to be restricted for 7 months during the CLTE and SNPL nesting season. While the effect would be no change from existing conditions, this alternative prolongs the restricted access along roughly 0.5 miles of shoreline that has been seasonally closed in response to the Consent Decree. The loss at the time was considered temporal until an HCP could be prepared and the acreage or some portion of it could be regained for year-round recreational purposes. The proposed HCP represents an effort to reclaim recreational acreage while providing a robust natural resource conservation program in order to provide public use, motorized and non-motorized recreational opportunities while conserving park resources and minimizing take.

9.2.1.3 CDPR Consideration of Alternative

The No Project Alternative conflicts with CDPR's responsibility of managing state parkland in a manner consistent with governing laws while promoting accessible recreation. The No Project Alternative does not resolve the unavoidable, unauthorized take of federally-listed species by

visitor use and park operations and thus does not bring park operations into compliance with FESA. Eliminating SNPL chick and egg capture for relocation (CA-12b; AMM 22) as a management option would complicate implementation of dust control measures such as the new foredune closure. Other actions proposed to offset take impacts to SWPT, CRLF, WSF, and tidewater goby would not occur (tidewater goby through salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], and invasive aquatic predator control [CA-17]). The No Project Alternative represents an unacceptable risk to CDPR for FESA violation and does not address conservation of species through formalized adoption and funding commitment of the conservation program. This alternative also would not avoid, minimize, and mitigate take or provide for public use and enjoyment while conserving park resources as effectively as the proposed HCP, and it would neither expand motorized and non-motorized recreational opportunities nor facilitate other conditions and obligations (e.g., the 2005 Consent Decree).

CDPR evaluated the possibility of obtaining take permits for individual maintenance and/or recreation activities, but rejected this alternative because of cost, staffing, and effectiveness considerations. Project-by-project permitting would require multiple permit applications, including possibly multiple HCPs resulting in a significant amount of USFWS and CDPR administrative effort. This alternative would also likely be less effective at protecting covered species than a single, comprehensive conservation program.

Given the failure of the alternative to meet project objectives, the No Project Alternative is not a viable option and is rejected by CDPR in favor of the proposed HCP.

9.2.2 Alternative 2: Reduced Disturbance in Dust Emission Areas

9.2.2.1 Description

Under the Reduced Disturbance in Dust Emission Areas Alternative, the proposed reduction of the seasonal exclosure (CA-50) would be eliminated from the HCP. The 6 Exclosure (62 acres) and the East Boneyard Exclosure (47 acres) would remain part of the Southern Exclosure and continue to be closed during the nesting season (March 1 – September 30) and open during the winter season (October 1 – February 28). The northern limit of the Southern Exclosure would remain in its current location at Post 6 rather than being incrementally shifted to Post 7. The southeastern boundary of the Southern Exclosure would continue to include the East Boneyard Exclosure. The Southern Exclosure would retain its current size (300 acres) and configuration. All other proposed project activities would remain as proposed. The purpose of this alternative would be to avoid proposed actions with the potential to increase particulate emissions from the HCP area that would contribute to excess dust emissions in potential violation of state or federal air quality standards. Mechanical trash removal (CA-21) was determined to not contribute toward excess dust emission; therefore, changes to the proposed mechanical trash removal are not included in this alternative. Section 5.2.3 of the HCP would be removed; however, all objectives and success criteria of HCP Table 5-7 (SNPL) and Table 5-8 (CLTE) would remain. All other features of the HCP would be implemented as described in Alternative 1.

9.2.2.2 Environmental Analysis

Land Use. The Reduced Disturbance in Dust Emission Areas Alternative would keep the Southern Exclosure boundary unchanged from its current location and configuration. The alternative would not conflict with land use policy and would not cause a change in land use of the park property.

Air Quality. Under the Reduced Disturbance in Dust Emission Areas Alternative, the 109 acres of the 6 Exclosure and East Boneyard Exclosure proposed in CA-50 would not be opened to year-round riding but would remain seasonally closed 7 months out of the year.

Under this alternative, the potential dust emissions associated with vehicle recreation in this area would remain unchanged from current baseline conditions. The potentially significant impacts of changing vehicle recreation from seasonal to year-round on 109 acres as described in EIR section 5.3 would not occur and Mitigation AIR-1 would not be necessary. Mechanical trash removal (CA-21) would still occur as proposed under this alternative; disturbance of surface sands caused by this activity would not contribute toward excess dust emission as discussed in Air Quality section 5.3.2 and thus would have a less-than-significant impact on air quality.

Biological Resources. Under the Reduced Disturbance in Dust Emission Areas Alternative, impacts associated with SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), Stranded Tidewater Goby Salvage (CA-13), SWPT and WSF Monitoring; (CA-14), Dune Slack Restoration (CA-16), Invasive Aquatic Species Predator Control (CA-17), Mechanical Trash Removal (CA-21), and CDPR's use of UAS (CA-52) would occur as proposed under the HCP. No change to the boundary of the Southern Exclosure would be implemented. This alternative avoids the uncertainty of the SNPL and CLTE response to the incremental reduction of the 6 Exclosure (CA-50). Maintaining the 6 Exclosure as part of the Southern Exclosure does not guarantee a continuation of current breeding successes and population growth trends into the future. Potential decreases in nesting productivity and potential increases in take due to nest establishment in formerly closed areas and territorial aggression causing increased chick movement into the open riding area associated with the incremental loss of primary SNPL and CLTE nesting habitat in the 6 Exclosure would be avoided. All other biological impacts of this alternative would be the same as the proposed HCP.

The 6 Exclosure provides approximately 62 acres of primary habitat for both SNPL and CLTE nesting (HCP Maps 11 and 13) and has been the most productive nesting area of all the seasonal exclosure locations in the park. In recognition of the biological value of the 6 Exclosure for SNPL and CLTE breeding, the proposed HCP includes specific criteria that must be met for both SNPL and CLTE prior to and during implementation of a reduced 6 Exclosure (HCP section 5.2.3). These criteria have been established to ensure the HCP area continues to contribute to species recovery while cautiously reopening some or all of the 6 Exclosure shoreline to year-round recreation. Regardless, retaining the 6 Exclosure and East Boneyard Exclosure in the current configuration as part of the seasonally closed Southern Exclosure would avoid the potential impacts to breeding SNPL and CLTE described in sections 6.3.2.1 and 6.3.2.2, including possible increased territorial aggression and increased movement of breeding and rearing activity in the open riding area.

Cultural Resources. The Reduced Disturbance in Dust Emission Areas Alternative would not impact cultural resources. The proposed changes to the 6 Exclosure and East Boneyard Exclosure (CA-50) would not impact cultural resources (EIR section 7.3), so this Reduced Disturbance in Dust Emission Areas Alternative would have the same no impact on cultural resources as the proposed HCP.

Recreation and Public Access. Recreation opportunity has declined over the years in response to various factors (e.g., Consent Decree, Dust Control Program, natural and cultural resource management). Key changes in riding area restrictions are listed below in Table 9-1 Keeping the 6 Exclosure and East Boneyard Exclosure within the boundary of the Southern Exclosure would

continue the existing access restriction on 109 acres during the nesting season from March 1 through September 30. This closure coincides with the busy summer season when the demand for recreation space peaks and visitor use in the HCP area routinely reaches vehicle daily limits and camping limits. The 6 Exclosure covers one-half mile of shoreline and 62 acres in a prime camping area location. The camping area north of 6 Exclosure is densely packed during summer months.[48] Under the Reduced Disturbance in Dust Emission Areas Alternative, this existing condition would continue unchanged.

Under the Reduced Disturbance in Dust Emission Areas Alternative, recreational access would not be increased. This alternative reduces the recreational benefit of the proposed HCP.

9.2.2.3 CDPR Consideration of Alternative

The Consent Decree signed by Sierra Club and CDPR (discussed in EIR section 2.4.2.2 and HCP section 2.2.5.11) stipulates that the CDPR HCP application to the USFWS would support a northern boundary of the seasonal exclosure at Post 7. This alternative conflicts with the Consent Decree by maintaining the northern boundary of the seasonal exclosure at Post 6 and thus does not achieve the project objective of facilitating implementation of legal settlement conditions and obligations. CDPR rejected this alternative when preparing the HCP (HCP section 8.3). CDPR determined the conservation program proposed under the HCP provides adequate AMMs, and the biological criteria and other factors that are required to reduce the 6 Exclosure (HCP section 5.2.3) ensure that take of SNPL and CLTE as a result of reducing the exclosure size would be minimized. Further, this alternative eliminates the incremental restoration of recreation opportunity on 62 acres at this location from 5 months per year to year-round. This alternative conflicts with project objectives to preserve, manage, and expand motorized and non-motorized recreation opportunities and to manage, maintain, and maximize access to the unique coastal camping and recreational amenities as appropriate. The alternative preserves existing but not historic recreation opportunity. Likewise, the alternative maintains but does not maximize a unique coastal camping opportunity. The proposed project thus fully achieves project objectives of promoting species and habitat conservation; ensuring FESA compliance; and avoiding, minimizing, and mitigating take effects. The proposed HCP better meets project objectives of operating the covered park units in a manner that provides for public use and enjoyment while conserving park resources and preserving, managing, and expanding motorized and non-motorized recreational access. Given these considerations, the Reduced Disturbance in Dust Emission Areas Alternative is rejected in favor of the proposed HCP.

9.2.3 Alternative 3: Permanent Year-Round Exclosures

9.2.3.1 Description

Under the Permanent Year-Round Exclosures Alternative, the open riding area boundary would be permanently modified to provide year-round closure of all or part of the 300-acre Southern Exclosure for wintering bird protection (including SNPL) and to reduce dust emissions associated with recreational use of the riding area. The proposed reduction of the East Boneyard Exclosure and 6 Exclosure (CA-50) would not occur. All other proposed new project activities would remain as proposed. The permanent exclosure would not be actively managed by CDPR.

[48]CDPR will implement shoreline closures as needed in the 48-acre foredune area to protect nesting SNPL and CLTE and chicks.

The purpose of the alternative would be to provide wintering shorebird protection (including SNPL). The Scientific Subcommittee formed in compliance with CDP 4-82-300, as amended, had previously recommended that CDPR evaluate benefits of year-round exclosures. However, as documented in the HCP, such areas may become less productive over time as vegetation becomes established and reduces the open habitat favored by nesting SNPL and CLTE. The perfect combination of open sand, microtopography and scattered vegetation and debris is not fully known.

9.2.3.2 Environmental Analysis

Land Use. The Permanent Year-Round Exclosures Alternative would redefine the boundaries of the open riding area to permanently exclude all or part of the seasonally protected CLTE and SNPL nesting habitat. This alternative would not cause an overall change in land use of the park property or conflict with land use policy, but it would permanently decrease acreage open to recreation and access to the ocean and thus may be subject to Coastal Act permitting.

Air Quality. The Southern Exclosure is an area of relatively lower emissivity. Eliminating riding in this area would likely have the beneficial air quality impact of decreasing dust emissions by preventing ongoing disturbance from recreational activity and allowing vegetation cover to become established. The air quality benefit realized from this alternative would depend upon the size of the permanent exclosure. This alternative would potentially reduce park contributions to exceedances of ambient air quality standards described in existing conditions (EIR section 4.2) and facilitate implementation of the Dust Control Program. Increased dust emissions potentially caused by the proposed opening of 6 Exclosure and East Boneyard Exclosure to year-round riding would not occur and Mitigation Measure AIR-1 would not be required.

Biological Resources. Observations in the HCP area indicate that once a foredune system creates significant topographic relief and dense vegetation, it is less productive for nesting, although the exact reasons are unknown (HCP section 2.2.2.1.2 and section 5.2.1, Objective 1.3). CDPR has analyzed nesting density and productivity in areas within the HCP that have a developed foredune system and found it does not support nests at the same density and with the same success as in the seasonal exclosure. Over the years, North Oso Flaco and South Oso Flaco (closed to motorized recreation year-round) have become less productive than 6 Exclosure and 7 Exclosure (seasonal exclosures). Large portions of the Southern Exclosure have become less productive as the vegetation and topography have expanded and grown over time, causing reduced open habitat favored by nesting SNPL and CLTE. Under the Permanent Year-Round Exclosures Alternative, habitat would not be managed and over time would likely become less productive. Under the proposed HCP, CDPR may consider habitat manipulation within the Southern Exclosure to remove non-native invasive species and larger dune hummocks in heavily vegetated areas, which would allow for some development of habitat features that would benefit breeding SNPL and CLTE but avoid the eventual long-term decline of habitat values that would be expected from a year-round closure (see HCP section 2.2.2.1.2).

Establishing a year-round exclosure may benefit SNPL and CLTE, at least temporarily, by providing protected wintering habitat and allowing development of microtopography and retention of wrack and other debris that can enhance breeding success, including by increasing invertebrate food resources. The majority of SNPL take at Oceano Dunes SVRA has occurred after seasonal exclosure fencing is removed. Retention of the Southern Exclosure fencing year-round does not guarantee that SNPL and CLTE would stay within the protective fencing during the breeding season, and SNPL disperse more widely throughout the SVRA during the wintering

season. This alternative may reduce but not eliminate the potential risk for take. Additionally, at some point vegetation may become too dense, topography may become too steep due to foredune development, or predation may increase, but the exact point at which this outcome might occur is not known. It is assumed, however, that there would be an eventual incremental loss of productivity in the 6, 7, and 8 exclosures because of development of features that do not support density of nests compared to current conditions. The reduced productivity within the Oso Flaco area and movement of the majority of CLTE nesting toward the 6 Exclosure is indicative of this potential productivity decline. Native plants would benefit from the elimination of vehicles, which prevent pioneering vegetation from establishment.

Cultural Resources. Retaining the Southern Exclosure as a year-round exclosure would have no impact on cultural resources. Shifting the open riding area to the south toward Oso Flaco could expose new shoreline areas to motorized recreation. This area has medium to high cultural sensitivity (Figure 7-1). Shifting recreation to this area could introduce new impacts to cultural resources.

Recreation and Public Access. The Permanent Year-Round Exclosures Alternative would eliminate recreation access on up to 300 acres (Southern Exclosure) that are seasonally available 5 months per year during fall and winter months. Assuming replacement acreage could be located, it is possible there would be no net loss in riding and camping area size, but providing this additional acreage would be subject to additional permitting processes that are beyond the scope of the HCP and may not be feasible. Dependent upon the location of replacement acreage, there could be a loss in shoreline access. Finding replacement acreage would also be more difficult in light of the Dust Control Program, which includes closing off additional recreation acreage for vegetation planting and other dust control measures in order to meet federal and state air quality standards for dust emissions. This alternative would increase the loss of recreation opportunity by 5 months each year (from 7 months to year-round).

The area available (open) for OHV recreation has decreased by roughly 40 percent since 1975 when the Pismo Dunes General Plan was first published. The 1975 General Plan identifies 2,000 acres of sand dunes available for OHV recreation. Since 1975, the acreage available for year-round motorized recreation in Oceano Dunes SVRA has been gradually reduced to protect sensitive natural and cultural resources Table 9-1. Seasonal restrictions have also been implemented to protect CLTE and SNPL nesting habitat and to reduce dust emissions. Currently, the open riding area open to OHV use is 1,138 acres, which includes approximately 300 acres that are seasonally closed for nesting habitat (Table 8-4).

Table 9-1 History of Riding Area Restrictions

Year	Change in Recreation Area
1975	State Beach and SVRA General Development Plan approved with goal of providing 2,000 acres for motorized recreation. The open riding area was unfenced and included much of Pismo State Beach.
1982	Coastal Commission issues CDP #4-82-300 authorizing 35,000 linear feet of fencing to establish riding area boundaries that exclude sensitive dune vegetation and wetland areas.
1997–1999	Exclosures located along the small foredune hummocks at the south end of the OHV open riding area (Post 8) and behind the foredunes at the south-western edge of the OHV open riding area (Boneyard Flats). Exclosures expand from 26 acres in 1997 to 37 acres in 1998–1999.

Table 9-1 History of Riding Area Restrictions	
Year	**Change in Recreation Area**
2001	Exclosure extended from Post 8 north to Post 7. The 7-8 Exclosure is 80 acres. Boneyard Exclosure is connected to the 7–8 Exclosure and is 75 acres.
2003–2005	Consent Decree between CDPR and Sierra Club extends seasonal exclosure north to Post 6 and south to Oso Flaco [Boneyard extension]. Roughly 1.5 miles of shoreline is closed to visitor use annually from March through September. Southern Exclosure is 261 acres (6–8 Exclosures: 185 acres; Boneyard Exclosure: 76 acres).
2016–2018	CDPR expands width of seasonal exclosures using bumpout fencing as needed in response to CLTE and SNPL annual monitoring (HCP Maps 11c and 13c). Bumpouts range in size annually from 11 to 14 acres.
2017	CDPR approves Dust Control Program removing 100 acres of riding area in SVRA for permanent revegetation and 40 acres for seasonal measures such as wind fencing.
2018	Total riding area identified in Oceano Dunes District HCP is 1,353 acres with 300 acres closed seasonally by exclosures.
2019	Draft PMRP and subsequent amended SOA include new dust control activity on up to 371 acres of riding and camping area, plus approximately 3 acres closed for monitoring equipment and 3 additional acres closed to camping in foredune alleys. Coastal Commission issues Emergency Permit (CDP# G-3-19-0053) authorizing fencing of a 48-acre area north of Post 6 to prohibit vehicle access (starting in December) reducing riding area to 1,305 acres.
2020–2025	CDPR prepares Annual Reporting Work Plans for ODSVRA Dust Control Program. CDPR updates acreage calculations to reflect increased vegetation plantings in riding area for dust control purposes. Riding area is 1,138 acres.[49]

Cumulative projects listed in Table 3-1 have potential to affect recreation opportunity. With the exception of new Dust Control Activities (CA-44), CDPR's potential future HCP covered activities and other CDPR projects would support or expand recreational opportunity by either improving existing park facilities or developing new park facilities.

While the closure of recreational acreage associated with the Dust Control Program is reflected in the HCP, the Dust Control Program is an independent, separately proposed planning project subject to separate CEQA review and CDPR approval. The loss of recreation acreage allowed at the SVRA could be considered a significant reduction in coastal recreation opportunity and public access. This loss of recreation opportunity under the Permanent Year-Round Exclosure Alternative would combine with the Dust Control Program recreational acreage reduction to potentially create a significant and unavoidable cumulative loss of recreation opportunity.

9.2.3.3 CDPR Consideration of Alternative

The Permanent Year-Round Exclosures Alternative would retain seasonal exclosure fencing year-round to provide protection of wintering SNPL. Given the success of the current conservation program using the existing seasonal exclosure size, establishing permanent year-round exclosures is unnecessary to achieve project objectives. The alternative could possibly be

[49] Includes approximately 306 acres of riding area seasonally closed March 1–September 30 for SNPL and CLTE nesting (Southern Exclosure). CDPR will implement shoreline closures as needed in the 48-acre foredune area to protect nesting SNPL and CLTE and chicks.

designed to avoid a net loss of recreation area; however, even if finding additional acreage for recreation proves feasible, doing so would likely shift the open riding area away from the shoreline, which is primary nesting habitat, and reduce beach access for OHV recreation and camping. This loss of shoreline access conflicts with project objectives to balance conservation and recreation demands, particularly to preserve, manage, and expand recreational opportunities and to manage, maintain, and maximize unique coastal camping and recreational amenities.

The Consent Decree signed by Sierra Club and CDPR (discussed in EIR section 2.4.2.2 and HCP section 2.2.5.11) stipulates that the CDPR HCP application to the USFWS would support a northern boundary of the seasonal exclosure at Post 7. This alternative conflicts with the Consent Decree by maintaining the northern boundary of the seasonal exclosure at Post 6 and thus does not achieve the project objective of facilitating implementation of legal settlement conditions and obligations. The conservation program proposed under the HCP provides adequate AMMs, and the criteria that are required to reduce the 6 Exclosure (HCP section 5.2.3) ensure that take of SNPL and CLTE as a result of reducing the exclosure size would be minimized. Further, the proposed incremental reduction of 62 acres of 6 Exclosure would restore recreation opportunity at that location from 5 months per year to year-round, which would provide additional recreation opportunity. In contrast, the Permanent Year-Round Exclosures Alternative would, in a best-case scenario, create no net loss of recreation, but if CDPR could not identify replacement riding and camping acreage, could combine with the Dust Control Program recreation reduction to create a significant and unavoidable cumulative loss of recreation opportunity.

The proposed HCP fully achieves project objectives of promoting species and habitat conservation, ensuring FESA compliance, and avoiding, minimizing, and mitigating take effects. The proposed HCP better meets project objectives of operating the covered park units in a manner that provides for public use and enjoyment while conserving park resources and preserving, managing, and expanding, as appropriate, motorized and non-motorized recreational access. The Permanent Year-Round Exclosures Alternative is rejected in favor of the proposed HCP.

9.2.4 Alternative 4: Reduced Vehicle Use Limits

9.2.4.1 Description

Vehicle use limits established by CDP #4-82-300 A5 allow up to 2,580 street-legal day use vehicles, 1,000 street-legal vehicles for camping, and 1,720 OHVs. CDPR has been temporarily operating the SVRA at administratively reduced vehicle numbers in response to the reduction in open riding area associated with Dust Control Program activity and the 2021 temporary year-round closure of the 6, 7, 8, and Boneyard Exclosures. Under the Reduced Vehicle Use Limits Alternative, CDPR would permanently operate under the following reduced day use, camping, and OHV use numbers for the purpose of reducing environmental effects associated with motorized recreation: 1,500 street-legal day use vehicles, 500 camping vehicles, and 1,000 OHVs. The alternative would reduce the number of vehicles granted access to Oceano Dunes SVRA; the acreage of the riding area open to vehicle use would not be changed. All other proposed new project activities would remain as proposed.

9.2.4.2 Environmental Analysis

Land Use. The Reduced Vehicle Use Limits Alternative would reduce day use and camping vehicle access to the HCP area. This alternative would not cause an overall change in the type of land use of the park property or conflict with land use policy. It would reduce motorized

recreation in the HCP area, which is generally considered ESHA, but it would also reduce access to coastal recreation opportunity and thus may be subject to Coastal Act permitting.

Air Quality. The Reduced Vehicle Use Limits Alternative would not change the open riding area boundary, so the acreage of sand surface disturbed under this alternative would not change. It remains unknown whether a decrease in vehicle use limits and corresponding reduction in vehicle activity would reduce emissivity levels and help offset the potential increase in $PM_{2.5}$ or PM_{10} emissions potentially caused by the proposed reduction in Boneyard Exclosure and 6 Exclosure. It is assumed in this EIR that the project's potential air quality impacts would not be avoided, and Mitigation Measure AIR-1 would still be required.

Biological Resources. It is possible that reducing the number of vehicles in the HCP area could lower the risk of take of SNPL and CLTE caused by proposed new covered activities (i.e., reduction of Boneyard Exclosure and 6 Exclosure; CA-50). The SVRA has been temporarily operating with administrative reductions in vehicle limits since 2021 when the park reopened incrementally after Covid. During this time, the impact on SNPL and CLTE in the form of incidental take has been reduced but not appreciably. Risk of take from proposed new and potential future covered activities would not be eliminated under the Reduced Vehicle Use Limits Alternative since motorized recreation would still occur in areas where SNPL and CLTE exist, and take is not caused solely by motorized vehicle recreation. Additionally, potential take of other species would not be appreciably reduced, especially to the extent that take could occur from non-motorized recreation and other park operations.

Cultural Resources. The Reduced Vehicle Use Limits Alternative would not introduce new impacts to cultural resources. The alternative would not change the open riding area boundaries or exposure of culturally sensitive areas to motorized recreation. The effects would remain the same as baseline conditions. The proposed new covered activities would not impact cultural resources (EIR section 7.3), so the Reduced Vehicle Use Limits Alternative would have the same no impact on cultural resources as the proposed project activities.

Recreation and Public Access. Historically, recreation acreage opportunity in the HCP area has decreased over the years due to various factors (e.g., CDP, Consent Decree, Dust Control Program, natural and cultural resource management) as shown in Table 9-1. The open riding area is currently 1,138 acres of which 300 acres are seasonally closed to motorized recreation. This existing reduction of recreational acreage by seasonal fencing coincides with summer months when recreation demand is at its highest. Under the Reduced Vehicle Use Limits Alternative, the potential reduction of the seasonal exclosure (CA-50) would still occur, opening up approximately 47 acres of dunes (East Boneyard) and up to 62 acres of shoreline (6 Exclosure). The reduced number of day use vehicles and OHVs, in addition to the recent camping vehicle reduction, combined with the potential opening of up to 62 acres of shoreline access suitable for shoreline recreation and camping, would ease congestion, especially for camping, that occurs during the peak summer visitation months. As a result, the Reduced Vehicle Use Limits Alternative would reduce the density of motorized recreation beyond the density reduction achieved by the proposed project CA-50 alone.

Although the acreage of the riding and camping area available to the public would be increased, the Reduced Vehicle Use Limits Alternative would reduce the number of park visitors able to access the HCP area via motorized vehicles, including visitors such as surfers, anglers, and disabled individuals, and others who currently use vehicles to access the shoreline. The impact of reduced vehicle use numbers on public recreation would be most keenly felt during the summer season when day use and camping vehicles have regularly reached permitted limits. Reduced

vehicle limits would increase the unmet demand for coastal OHV recreation and camping, which has been exacerbated by past reductions in recreation access. The lost recreation opportunity would combine with the Dust Control Program's reductions in recreation area to potentially create a significant and unavoidable cumulative loss of recreation opportunity.

9.2.4.3 CDPR Consideration of Alternative

Under the Reduced Vehicle Use Limits Alternative, the HCP as proposed would be implemented with the addition of reduced vehicle use limits. The potential for SNPL and CLTE take during the breeding season could be reduced somewhat but not eliminated, and the potential for SNPL take during the non-breeding season would not be eliminated. Reducing vehicle use numbers, whether year-round or solely in the non-breeding season, would not provide a clear and substantial reduction in take and could have substantial adverse impacts to motorized recreation and vehicular access to non-motorized recreation. The combination of reduced vehicle numbers and expanded recreational acreage from the proposed reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) would reduce the density of vehicles and camping on the beach. Less congestion is a recreational benefit; however, reduced vehicle limits represent a loss of public access and an increase in unmet demand for coastal recreation opportunity, including low-cost camping. The alternative does not substantially reduce environmental impacts of increased risk of take of SNPL and CLTE or increases in emissivity of PM_{10} and could combine with the Dust Control Program recreation reduction to create a significant and unavoidable cumulative loss of recreation opportunity. The proposed HCP better meets project objectives of operating the covered park units in a manner that provides for public use and enjoyment while conserving park resources; preserving, managing, and expanding motorized and non-motorized recreational opportunities; and managing, maintaining, and maximizing access to unique coastal camping and recreational amenities. Given these considerations, the Reduced Vehicle Use Limits Alternative is rejected in favor of the proposed HCP.

9.3 Environmentally Superior Alternative

The purpose of the alternatives analysis is to identify project alternatives that "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project[.]" (CEQA Guidelines § 15126.6(a)). The discussion above presents alternatives to the proposed HCP based on the identified potentially significant impacts. The environmental impacts of the alternatives are compared in Table 9-2.

Alternative 2: Reduced Disturbance in Dust Emission Areas Alternative is considered the environmentally superior alternative. This alternative would allow CDPR to obtain most of the project objectives and avoid the potential impacts on air quality (dust emissions) and biological resources (CLTE and SNPL nesting habitat) associated with opening the 6 Exclosure to year-round riding. The alternative would not achieve the project objective of facilitating implementation of legal settlement conditions and obligations. The proposed HCP better meets the project objectives of operating the covered park units in a manner that provides for public use and enjoyment while conserving park resources and preserving, managing, and expanding, as appropriate, motorized and non-motorized recreational access. Since project mitigation is available to reduce the proposed HCP's potential impacts on nesting habitat and air quality to a less-than-significant level, and because this alternative would not meet all project objectives, Alternative 2, the Reduced Disturbance in Dust Emission Areas Alternative was not selected.

Table 9-2. Comparison of Proposed Project Impacts Against Project Alternatives

Resource	Proposed Project	Alternative 1: No Project	Alternative 2: Reduced Disturbance in Dust Emission Areas	Alternative 3: Year-Round Exclosure	Alternative 4: Reduced Vehicle Use Limits
Land Use Plans and Policies	Does not conflict with existing plans and policies.	Does not conflict with existing plans and policies.	Does not conflict with existing plans and policies.	Does not conflict with existing plans and policies.	Does not conflict with existing plans and policies.
Air Quality	Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) could increase PM_{10} emissions and contribute to existing or projected exceedances of NAAQS and/or CAAQS. Mitigation Measure AIR-1 reduces the effect to less than significant. No air quality impacts would occur from other proposed activities: SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), or CDPR's use of UAS (CA-52) would occur.	PM_{10} emissions from reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) would not occur. PM_{10} emissions from existing OHV recreation would continue to occur. No change from existing condition.	Reduction of the 6 Exclosure and Boneyard Exclosure would not occur and no increase in PM_{10} emissions from year-round OHV recreation in these areas would occur. Mitigation Measure AIR-1 would not be required. No air quality impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), or CDPR's use of UAS (CA-52) would occur.	Permanent closure of 300 acres of riding area acreage seasonally open to OHV disturbance would reduce PM_{10} emissions generated from that area. Mitigation Measures AIR-1 would not be required. No air quality impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), or CDPR's use of UAS (CA-52) would occur.	Reduction of the Boneyard Exclosure and 6 Exclosure CA-50) could increase PM_{10} emissions and contribute to existing or projected exceedances of NAAQS and/or CAAQS. Mitigation Measures AIR-1 reduces the effect to less than significant. Reduced number of vehicles permitted would have unknown impact on PM_{10} emissivity and is unlikely to offset the project's potential air quality impacts. Mitigation measures AIR-1 would still be required. No air quality impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), or CDPR's use of UAS (CA-52) would occur.

Biological Resources	SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-121b) would reduce mortality of individual SNPL at risk for take. Stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17) would offset take impacts to SWPT, CRLF, and WSF. Mechanical trash removal (CA-21) could reduce the invertebrate prey population supporting foraging wintering shorebirds. Exclosure reductions (CA-50) would remove seasonally protected breeding habitat for SNPL and CLTE on up to 62 acres of primary habitat (6 Exclosure) and approximately 47 acres of mostly non-primary habitat (East Boneyard). CDPR's use of UAS (CA-52) could disrupt shorebirds including special-status species. Effects would be reduced by implementation of AMMs incorporated into the HCP.	No change to existing conditions.	SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b) would reduce mortality of individual SNPL at risk for take. Stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17) would offset take impacts to SWPT, CRLF, and WSF. Mechanical trash removal (CA-21) could reduce the invertebrate prey population supporting foraging wintering shorebirds. Exclosure reductions (CA-50) would not occur as proposed. Southern Exclosure boundary would remain unchanged from existing conditions. CDPR's use of UAS (CA-52) could disrupt shorebirds including special-status species. Effects would be reduced by implementation of AMMs incorporated into the HCP.	SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b) would reduce mortality of individual SNPL at risk for take. Stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17) would offset take impacts to SWPT, CRLF, and WSF. Mechanical trash removal (CA-21) could reduce the invertebrate prey population supporting foraging wintering shorebirds. Exclosure reductions (CA-50) would not occur as proposed. Permanent closure of 300 acres of seasonal riding area would provide protected wintering habitat. Incremental loss of productivity in the 6, 7, and 8 exclosures may occur due to development of the foredune and topography that is less likely to support density of nests compared to current conditions. CDPR's use of UAS (CA-52) could disrupt shorebirds including special-status-species. Effects would be reduced by implementation of AMMs incorporated into the HCP.	SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b) would reduce mortality of individual SNPL at risk for take. Stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17) would offset take impacts to SWPT, CRLF, and WSF. Mechanical trash removal (CA-21) could reduce the invertebrate prey population supporting foraging wintering shorebirds. Exclosure reductions (CA-50) would remove seasonally protected breeding habitat for SNPL and CLTE on up to 62 acres of primary habitat (6 Exclosure) and approximately 47 acres of mostly non-primary habitat (East Boneyard). Effects on SNPL and CLTE would be reduced by implementation of AMMs incorporated into the HCP. Reduced vehicle numbers could generally reduce risk of existing impacts to biological resources from motorized recreation; however, risk for take of SNPL and CLTE would not be eliminated, nor would it be eliminated for other covered species. CDPR's use of UAS (CA-52) could disrupt shorebirds including special-status species. Effects would be reduced by implementation of AMMs incorporated into the HCP.
Cultural Resources	Does not impact existing cultural resources.	No change to existing conditions.	Does not impact existing cultural resources.	Does not impact existing cultural resources.	Does not impact existing cultural resources.

Table 9-2. Comparison of Proposed Project Impacts Against Project Alternatives

Resource	Proposed Project	Alternative 1: No Project	Alternative 2: Reduced Disturbance in Dust Emission Areas	Alternative 3: Year-Round Exclosure	Alternative 4: Reduced Vehicle Use Limits
Recreation	Mechanical trash removal (CA-21) would reduce trash and debris in beach areas open to recreation. Exclosure reductions (CA-50) would expand existing recreational opportunities from seasonal access (Oct–Feb) to year-round access in 6 Exclosure (up to 62 acres) and East Boneyard (47 acres). No recreation impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17).or CDPR's use of UAS (CA-52) would occur.	No change to existing conditions.	Mechanical trash removal (CA-21) would reduce trash and debris in beach areas open to recreation. ~~Exclosure reduction (CA-50) would occur in Boneyard Exclosure only. Existing recreational opportunities would be expanded from seasonal access (Oct–Feb) to year-round access in East Boneyard (47 acres).~~ Exclosure reductions (CA-50) would not occur as proposed. Southern Exclosure boundary would remain unchanged from existing conditions. No recreation impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), or CDPR's use of UAS (CA-52) would occur.	Mechanical trash removal (CA-21) would reduce trash and debris in beach areas open to recreation. Exclosure reductions (CA-50) would not occur. Existing recreational opportunities would be permanently removed from access year-round on 300 acres in riding area. No recreation impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17). or CDPR's use of UAS (CA-52) would occur.	Mechanical trash removal (CA-21) would reduce trash and debris in beach areas open to recreation. Exclosure reductions (CA-50) would expand existing recreational opportunities from seasonal access (Oct–Feb) to year-round access in 6 Exclosure (up to 62 acres) and East Boneyard (47 acres). Reduced vehicle numbers combined with opening the 6 Exclosure (CA-50) could reduce camping congestion and density experienced during summer months. Reduced vehicle numbers would reduce the number of visitors that can access the SVRA and increase the existing unmet demand for coastal OHV recreation and camping. No recreation impacts from SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), or CDPR's use of UAS (CA-52) would occur.
Meet Project Objectives?	Yes	No	Partial	Partial	Partial

CHAPTER 10. OTHER CEQA CONSIDERATIONS

10.1 POTENTIALLY UNAVOIDABLE SIGNIFICANT IMPACTS

There are no significant unavoidable impacts associated with the proposed new project activities covered by the Oceano Dunes HCP. Potentially significant impacts of the new project activities are identified in this EIR for Air Quality along with mitigation measures that would reduce or avoid these impacts. All proposed new activity impacts can be reduced to a less-than-significant level with mitigation.

10.2 GROWTH INDUCEMENT

The proposed HCP would implement a conservation program for park operations at Pismo State Beach and Oceano Dunes SVRA in support of an application to the USFWS for an ITP as described in EIR section 2.4. The HCP covered activities largely consist of existing operations. New park operations proposed by CDPR include SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), changes to the East Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR's use of UAS (CA-52). Potential future covered activities identified in the HCP include SNPL adult banding and habitat manipulation in Southern Exclosure (CA-12b), propagation and outplanting of listed plants (CA-15), CalVTP (CA-16), cable fence replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Pismo Creek Estuary seasonal (floating) bridge (CA-41), limited trail riding (CA-42), replacement of the safety and education center CA-43), new dust control activities (CA-44), Oso Flaco Lake boardwalk replacement (CA-48), and special projects (CA-49).

The HCP approval and subsequent issuance of the federal ITP would satisfy the federal permit requirement for potential future covered activities and therefore remove the federal biological permit from the regulatory approval process of these future projects. The HCP and ITP do not grant any other entitlements to future projects and do not obviate the need for future CEQA review, permits, or approvals.

The HCP does not build capacity for future park improvements and does not involve infrastructure changes that would promote development of urban growth or conversion of land from existing park uses. The HCP would not induce growth of park visitation. Park visitor vehicle limits are set by the CDP, and current limits would remain in effect unchanged by the HCP. As such, the proposed new project activities are not growth inducing.

10.3 IMPACTS FOUND TO BE NOT SIGNIFICANT

Using the CEQA Guidelines Appendix G checklist, CDPR has determined the proposed new activities would clearly result in no impact or a less-than-significant impact on the resources described below.

10.3.1 Aesthetics

The HCP area is located within the San Luis Obispo County Coastal Zone. Visibility of the HCP area is restricted to views from within Pismo State Beach and Oceano Dunes SVRA and views

from the adjacent stretch of State Route 1. None of the highway segments that are located near the HCP area (State Route 1 and U.S. 101) are officially designated as State Scenic Highways (Caltrans 2017). State Route 1 becomes a State Scenic Highway north of the city of San Luis Obispo, about 14 miles north of the HCP area. CDPR proposed new activities (i.e., SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities [CA-12b]; stranded tidewater goby salvage [CA-13]; SWPT and WSF monitoring [CA-14]; invasive aquatic species predator control [CA-17]; mechanical trash removal [CA-21]; reduction of the Boneyard Exclosure and 6 Exclosure [CA-50]; and CDPR's use of UAS [CA-52]) do not involve construction or any visual changes in the HCP area. Dune slack restoration [CA-16] would involve grading and other ground and vegetation disturbance including some temporary vegetation removal, but the area is of limited visibility, and restoration would improve the visual character of the currently degraded aquatic sites.

The general area contains scenic resources such as trees; however, none are within view of a state scenic highway. CDPR proposed new activities would not result in the removal of any trees, rock outcroppings, or historic buildings within view of a state scenic highway. The work proposed would not significantly alter the existing visual character in HCP area. The proposed new activities would not create a new source of substantial light or glare affecting day or nighttime views in the area as no exterior lighting is proposed. The HCP would have ***no impact*** on aesthetics.

10.3.2 Agriculture and Forestry Resources

The HCP area is predominantly a beach dune system with few trees that does not generally contain agricultural or forestry land. However, the Oceano Dunes District leases two parcels comprising 136 acres of land east of Oso Flaco Lake to an agricultural operator (Figure 2-3). These lands have been actively farmed for more than 30 years and are listed as Prime Farmland and Farmland of Statewide Importance (Farmland) according to the Farmland Mapping and Monitoring Program (CDC 2016). These parcels are zoned for agricultural use (County of San Luis Obispo 2017). The remainder of the 5,005-acre HCP area does not contain Farmland and is not zoned for agriculture or forestry (County of San Luis Obispo 2017). None of the HCP area parcels are under a Williamson Act Contract.

The proposed new activities involve SNPL chick and egg capture for captive rearing (CA12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), changes to the seasonal exclosure boundaries (CA-50), and CDPR's use of UAS (CA-52). These activities would not occur on agricultural land or affect agricultural uses. HCP covered activities involving maintenance of two ditches that flow from the agricultural lands into Oso Flaco Lake (CA-46) and maintenance of a bioreactor on agricultural lands to remove nitrates and improve water quality (CA-47) are existing park operations that would remain unchanged. The HCP would not prevent the continued agricultural use of the two parcels leased to an agricultural operator. The proposed new activities would not take place near these two parcels and would not adversely impact the agricultural uses. The proposed new activities would have ***no impact*** on agriculture or forestry resources.

10.3.3 Geology and Soils

The HCP area is situated in the Guadalupe-Nipomo Dune Complex, an 18-mile-long coastal dune landscape that occupies approximately 20,000 acres in southwestern San Luis Obispo County and northwestern Santa Barbara County (USFWS 2016c). Several sources identify the

Guadalupe-Nipomo Dune Complex as "one of the largest coastal dune landscapes along the west coast of North America" (USFWS 2016c). A portion of the dune complex is designated the Nipomo Dunes-Point Sal Coastal Area Natural National Landmark, an area that contains "the largest, relatively undisturbed coastal dune tract in California, and is one of the last remaining tracts of pristine rocky coastline in the South Coast Ranges" (NPS 2012). Though these descriptions vary slightly, they generally identify the Guadalupe-Nipomo Dune Complex as a unique coastal dune landscape with few, if any, parallels in size. According to the Natural Resources Conservation Service, the Beaches soil map unit (Unit 107) includes sands in the intertidal zone characterized by rapid permeability, low to very low available water capacity, slow surface runoff, and high to very high erosion hazard due to wind and wave action (SCS 1984). The Dune Land unit (Unit 134) consists primarily of hilly areas along the coast that are composed of sand-sized particles that shift with the wind. These areas are characterized by very rapid permeability, very low available water capacity, slow surface runoff, and very high sand-blowing hazard.

The 2020 Soil Conservation Standards and Guidelines state that OHV recreation facilities should be managed for sustainable long-term prescribed use, without generating soil loss that exceeds restorability, and without causing erosion or sedimentation which significantly affects resource values beyond the facility. Management of OHV facilities is further governed by PRC sections 5090.2 and 5090.35, which emphasize that OHV use should be managed for sustained long-term use and that the protection of public safety, the appropriate utilization of lands, and the conservation of land resources are of the highest propriety in the management of SVRAs. The California Coastal Act also requires development to reduce potential impacts from geologic and soil conditions.

The HCP area and vicinity are subject to substantial, natural erosion forces that are independent of the proposed new activities. Active dunes are part of a dynamic, wind-blown environment where the predominant earth material is sand. Strong winds continually blow sand from the ocean to create the dunes. The proposed new activities (i.e., SNPL chick and egg capture for captive rearing if observed to be threatened by non-covered species management activities [CA-12b]; stranded tidewater goby salvage [CA-13]; SWPT and WSF monitoring [CA-14]; invasive aquatic species predator control [CA-17]; mechanical trash removal [CA-21]; reduction of the Boneyard Exclosure and 6 Exclosure [CA-50]; and CDPR's use of UAS [CA-52]) do not involve grading, excavation, or soil hauling that could result in soil loss or erosion. Dune slack restoration (CA-16) would use excavators and small tractors and could involve grading or use of heavy equipment where needed within the disturbance area. This activity would temporarily remove vegetation and could cause a short-term increase in soil erosion and loss of topsoil during construction; however, CDPR would implement a storm water pollution prevention plan (SWPPP) as needed for compliance with the NPDES Construction General Permit requirements. The SWPPP would include site design, source control, and treatment best management practices to control potential erosion, sedimentation, and other pollutants from construction sites. Mechanical trash removal (CA-21) would disturb the surface layer of sand (top 2 to 6 inches) in raked areas; however, since mechanical trash removal would only occur in high use areas where people congregate, the mechanical trash removal would not create new areas of sand disturbance. Mechanical trash removal and exclosure reductions would occur in a sand sheet that does not contain an organic soil horizon (e.g., topsoil). These activities would not occur within a vegetated area and therefore would have no impact on soil erosion or loss of topsoil. The proposed new activities would have a ***less-than-significant impact*** on soil erosion or loss of topsoil.

The site is not within an Alquist-Priolo zone,[50] there are no known faults that cross the site, and no signs of a fault surface have been observed at the site. The proposed new activities do not involve construction or earthwork activity; therefore, the proposed new activities would not create or exacerbate fault rupture conditions. The proposed new activities would have ***no impact*** related to surface rupture.

The HCP area is located in a seismically active region and is subject to occasional seismic ground shaking. The closest active faults to the HCP area include the Los Osos Fault, located approximately 5.5 miles to the northeast and the Hosgri Fault located approximately 11.5 miles to the west (County of San Luis Obispo 2014). However, the proposed new activities would not attract additional people to the area, and the risks related to seismic ground shaking after HCP adoption would be the same as existing conditions. The proposed new activities would have ***no impact*** on seismic shaking risks.

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction include loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts, and gravels with poor drainage or those capped by or containing seams of impermeable sediment. According to the San Luis Obispo County General Plan Safety Element, Map 3, Liquefaction Hazards, the HCP area has a moderate potential for liquefaction (County of San Luis Obispo 2014). The proposed new activities would not exacerbate liquefaction conditions or increase exposure of park visitors to liquefaction risks. Therefore, the proposed new activities would have ***no impact*** related to seismic-related ground failure.

Other than the dunes themselves, there are no hills or other steep slopes near the HCP area; therefore, the HCP area is not subject to impact from off-site landslides. The proposed new activities would occur in relatively flat areas with no risk from landslides. The proposed new activities would have ***no impact*** on landslide conditions or associated risks of landslides.

The HCP area is located on beach soils, which are unstable and subject to movement. The sands have moderate potential for liquefaction; therefore, the potential for liquefaction-induced lateral spreading is also moderate. The proposed new activities would not alter existing geologic conditions of the site or increase risks associated with unstable geologic units. Therefore, the proposed new activities would have ***no impact*** on geologic unit stability.

Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. However, expansive soils typically have high clay content; the sandy soils in the HCP area are not expected to be expansive. Furthermore, proposed new activities do not include any construction or development. The proposed new activities would have ***no impact*** on risks to life or property.

The proposed new activities do not involve the use of septic tanks or other alternative wastewater disposal systems. For these reasons, the proposed new activities would have ***no impact*** on geology and soils from septic or wastewater disposal systems.

[50] California Geological Survey Alquist-Priolo zoning maps June 15, 2017; http://www.conservation.ca.gov/cgs/rghm/ap/Pages/official_release.aspx

No paleontological resources have previously been discovered within the area, and the potential for discovery of paleontological resources within the project area is considered low.

Under CEQA, a definition for a "unique geologic feature" there does not exist, nor is there state-wide codification regarding "unique geologic features." Various counties have established guidelines for determining significance regarding unique geologic features. Using, for example, the San Diego County's guidelines for determining significance, it states that: "A geologic feature is unique if it meets one of the following criteria:

a. Is the best example of its kind locally or regionally;

b. Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;

c. Provides a key piece of geologic information important in geology or geologic history;

d. Is a "type locality" of a formation;

e. Is a geologic formation that is exclusive locally or regionally;

f. Contains a mineral that is not known to occur elsewhere in the County; or

g. Is used repeatedly as a teaching tool."

Within the HCP area is a portion of the Guadalupe- Nipomo Dunes Complex, which extends across 20,000 acres along the Pacific Ocean. Much of the dune complex was first created during the Flandrian Transgression, a period of sea level rise approximately 2,000 to 6,000 years ago, although parts may date to pre-Flandrian. The dune complex has the highest dunes in the western coastline of the USA (USFWS 2016c).

The dune creation process starts with sediment carried from rivers and creeks to the ocean, where waves break the sediment down to fine-grained sand. The sand is then redeposited on the shoreline, and the windblown sand starts to accrete around vegetation and detritus. As the wind builds up the sand more on the windward side, the dunes destabilize, and the process of saltation begins. Saltation is the wind moving small grains to the leeward sides of the dunes, followed by larger ones, creating alternating layers of fine- and coarse-grained sands. The ability to form dunes requires both a sediment source and a prevailing wind source, and both conditions occur in the HCP and surrounding areas, thus allowing dunes to form.

The Pismo State Beach and Pismo Dunes SVRA General Development plan states that the dunes are: "recognized by scientists, conservationists, government agencies, and the public as being the finest most extensive coastal dunes remaining in California." Given this recognition, in combination with their distinction as the highest dunes on the Pacific Coast of the US, means that they would fulfil criterion "a" of the San Diego County's guidelines above. Using these criteria as a basis, the dunes can be considered as a "unique geologic feature."

Boneyard Exclosure and 6 Exclosure reduction (CA-50) could increase emissivity of windblown PM in the affected areas as discussed in Air Quality (EIR section 5.3). The potential increase in particulate emissions is a potential air quality impact but not one that would significantly change the overall dynamics of the dune sheet or dune complex. The proposed new activities would not interfere with the coastal sediment transport process; deposition and sand transport would continue to occur in the HCP area, and dune formation would not be altered. As such, the impact of the proposed new activities on paleontological resources and unique geologic features is considered ***less than significant.***

10.3.4 Greenhouse Gas Emissions and Energy

Gases that absorb and emit infrared thermal radiation (heat) in the atmosphere and affect regulation of the Earth's temperature are known as greenhouse gases (GHGs). There are many compounds present in the Earth's atmosphere which are GHGs, including but not limited to water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). GHGs allow solar radiation (sunlight) to enter the atmosphere freely. When solar radiation strikes the earth's surface, it is either absorbed by the atmosphere, land, and ocean surface, or reflected back toward space. The land and ocean surface that has absorbed solar radiation warms up and emits infrared radiation toward space. GHGs absorb some of this infrared radiation and "trap" the energy in the earth's atmosphere. Entrapment of too much infrared radiation produces an effect commonly referred to as the "Greenhouse effect." Human activities since the beginning of the Industrial Revolution (approximately 1750) have increased atmospheric GHG concentrations. Average global surface temperatures have risen as a result of GHG emissions. This increase in globally averaged surface temperatures is commonly referred to as "Global Warming," although the term "Global Climate Change" is preferred because effects associated with increased GHG concentrations are not just limited to higher global temperatures (NOAA 2023).

GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHGs are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide), and off-gassing from low oxygen environments such as swamps or exposed permafrost (methane); however, GHG emissions from human activities such as fuel combustion (e.g., carbon dioxide) and refrigerants use (e.g., hydrofluorocarbons) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change.

Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880) and atmospheric carbon dioxide concentrations have increased from a pre-industrial value of 280 parts per million in the early 1800s to 425 parts per million in August 2025 (NOAA 2025). The effects of increased GHG concentrations in the atmosphere include climate change (increasing temperature and shifts in precipitation patterns and amounts), reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare. GHGs can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act, which stipulated GHG reduction targets. The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. Most recently, the 2022 Scoping Plan presents a scenario and strategy for California to meet the State goal of reducing GHG emissions 40% below 1990 levels by 2030 and to achieve carbon neutrality by 2045 (CARB 2022).

With the exception of dune slack restoration (CA-16) and mechanical trash removal (CA-21), CDPR proposed new activities would not change GHG emissions. SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and

WSF monitoring (CA-14), invasive aquatic predator control (CA-17), seasonal exclosure reductions (CA-50), and CDPR's use of UAS (CA-52) do not involve new vehicle emission sources above baseline park operations. Under CA-21, CDPR proposes to use a tractor-towed rake to collect nails, broken glass, and other debris from open sand areas that may pose a hazard to visitors or wildlife. The tractor would meet the newest CARB emissions requirements and would be maintained and upgraded to meet strict air quality guidelines. The GHG emissions resulting from the piece of equipment's operation would not generate substantial GHG emissions, and on-site energy use, off-site vehicle trips, and overall GHG emissions generated by project activities are not anticipated to substantially increase GHG emissions associated with annual operations. Similarly, all equipment used for the dune slack restoration work (CA-16) would meet all CARB emissions requirements and be properly maintained. Other existing park operations associated with the HCP (e.g., nesting bird surveys, fence installation for exclosures, etc.) would not change after adoption of the HCP. Although the East Boneyard Exclosure and 6 Exclosure areas would be available to motorized recreation year-round, the limits on the number of vehicles allowed within the HCP area would not change. Additionally, the changes to the exclosure boundaries would not be enough to change use patterns significantly, such as by attracting additional motorized recreationists or causing motorized recreationists to spend more time operating their vehicles. As a result, the proposed new activities would not generate a substantial increase in GHG from proposed new covered activities, nor would it conflict with a plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions. The impact is ***less than significant***.

Implementation of the proposed new activities would not result in a substantial increase in energy demand or the wasteful use of fuel or energy. The proposed new activities would not change or result in new land use, and no new buildings for human habitation are proposed. SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities (CA-12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), invasive aquatic predator control (CA-17), and seasonal exclosure reductions (CA-50) do not involve new energy uses. Dune slack restoration (CA-16) and mechanical trash removal (CA-21) are anticipated to use a minor, additional amount of diesel and/or gasoline, but this usage would not be considered wasteful or inefficient because this activity supports habitat restoration, public safety, and environmental protection needs. Similarly, CDPR's use of UAS (CA-52) would require the use of electricity to power the equipment. The UAS would not be considered wasteful or inefficient. UAS could reduce the number of gasoline-powered vehicle trips that may be required for biological survey purposes, and it would only be in operation when needed. In addition, no state or local plans targeting renewable energy or energy efficiency are applicable to CDPR proposed new covered activities. Accordingly, the proposed project would not use energy in a wasteful, inefficient, or unnecessary way, nor would it conflict with or obstruct implementation of a state or local plan adopted for the purpose of increasing energy efficiency and renewable energy generation. ***No impact*** on energy resources would occur.

10.3.5 Hazards and Hazardous Materials

The HCP area is managed primarily for recreation and resource protection. Other than the fuel tank in the vehicle towing the mechanical trash removal equipment, the proposed new activities would not involve the routine transport, use, or disposal of hazardous materials and are unlikely to release that fuel into the environment. Potential hazardous materials used in park operations such as gasoline, oil, and diesel are stored at the park maintenance facility off of State Route 1.

All materials are used and stored in compliance with labeling requirements and disposed of in accordance with applicable local and state hazardous materials regulations. The CDPR also has containment measures and protocols in place in the event of a spill or leak at the maintenance yard.

The HCP area is not within 0.25 miles of an existing or proposed school; the closest school is approximately 0.75 miles northeast. The HCP area also is not included on a list of hazardous materials sites pursuant to Government Code section 65962.5. Although the HCP area is within the Oceano County ALUP area and is within 0.5 mile of that airport (SLOALUC 2007), proposed new activities would have no effect on the airport or create hazards to people within the HCP area. The proposed new activities would not interfere with an adopted emergency response plan or emergency evacuation plan. According to fire hazard safety zone maps for San Luis Obispo County, the HCP area has moderate fire susceptibility (CDF 2007), and proposed new activities involve no changes in park operations that would expose people or structures to a risk of loss, injury, or death involving wildland fires. The proposed new activities would have ***no impact*** related to hazards or hazardous materials.

10.3.6 Hydrology and Water Quality

The proposed new activities do not involve the discharge of wastewater or use of groundwater and would not interfere with water quality standards, groundwater supplies, or groundwater recharge. Proposed mechanical trash removal (CA-21) and changes to the seasonal exclosure boundary (CA-50), all implemented on the sandy substrate, would not modify drainage patterns or the course of a stream or river. Dune slack restoration (CA-16) would modify the Jack Lake and/or Surprise Lake area to improve and retain wetland habitat values. Project activities would not increase impervious surfaces or surface runoff or otherwise degrade water quality, nor would g increase the risk of flooding or exposure to seiche, tsunami, or mudflow. Mechanical trash removal would have a beneficial effect on water quality by removing litter that could be washed into drainages or the ocean. The proposed new activities would have a ***less-than-significant impact*** on water quality and hydrology.

10.3.7 Mineral Resources

The California Department of Conservation has classified most lands in and around the HCP area as Mineral Resource Zone (MRZ-3), or areas containing mineral deposits of undetermined significance (i.e., the significance cannot be evaluated from available data) (CDC 1989b). The exception to this is a small area of land (approximately 30 acres) south of the community of Oceano near the northeast corner of Pismo Dunes Natural Preserve that is classified MRZ-2 (CDC 1989a, CDC 1989b). Operated by the Oceano Sand Company, this active mine produces specialty sand (CDC 2018). Implementation of the proposed new project activities would not interfere with this mining operation, would not result in the loss of availability of a known mineral resource or one that would be of value to the region and residents of the state, and would not result in the loss of a locally important mineral resource recovery site as delineated on a local general plan, specific plan, or other land use plan. For these reasons, the proposed new activities would have ***no impact*** on mineral resources.

10.3.8 Noise

Noise is defined as unwanted sound. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the

receptor perceives the sound as "noisy" or annoying. The existing noise environment within the HCP area is characterized by natural and human-made sources, including waves, wildlife (e.g., birds), wind, vehicular operation (e.g., trucks, OHV, etc.), and aircraft overhead.

Dune slack restoration (CA-16) would involve the operation of heavy equipment such as an excavator and small tractor to remove vegetation. Mechanical trash removal (CA-21) involves use of a tractor-towed rake to collect nails, broken glass, and other debris from open sand areas that may pose a hazard to visitors or wildlife. Noise in the SVRA from heavy equipment operations would be of a nature similar to the existing ambient environment: that is, vehicular operation. In addition, this source of noise would be mobile, and situated well away from permanent receptors, infrequent, and of short duration. Transient receptors (e.g., campers or OHV riders) would not be exposed to noise generated for a prolonged amount of time, since the equipment is mobile.

Under CA-50, Reduction of the Boneyard Exclosure and 6 Exclosure, CDPR would reduce the size of some seasonal exclosures, reintroducing year-round motorized recreation into the East Boneyard Exclosure and 6 Exclosure. This additional access would result in additional noise generated in these portions of the HCP area year-round instead of five months a year. The East Boneyard Exclosure and 6 Exclosure are located along the HCP area's western and southern boundaries, respectively. Any shift in noise from one area of the SVRA to these locations would likely be indistinguishable at permanent receptor locations. Daily vehicle limits specified by CDP 4-82-300-A5 would remain in effect. As a result, overall noise generated by OHV activity at the SVRA would remain substantially unchanged.

Implementation of the proposed new project activities would not result in generation of excessive noise, nor would it expose persons to excessive noise. The proposed new activities do not involve the siting of new receptors in an area where they may be exposed to excessive, airport-related noise, and those activities would not have the potential to generate groundborne vibration. For these reasons, the proposed new activities would have ***no impact*** related to noise.

10.3.9 Population and Housing

The HCP area is adjacent to populated areas, including Pismo Beach, Grover Beach, and Oceano. The HCP area is a beach dune system used for recreation and natural resources management. There are four park residences within the HCP area. No other existing housing or permanent businesses (concessions only) occur in the HCP area. The proposed new activities comprise SNPL chick and egg capture for captive rearing (CA12b), stranded tidewater goby salvage (CA-13), SWPT and WSF monitoring (CA-14), dune slack restoration (CA-16), invasive aquatic species predator control (CA-17), mechanical trash removal (CA-21), changes to the seasonal exclosure boundaries (CA-50), and CDPR's use of UAS (CA-52).. These activities would not induce population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). CDPR implementation of proposed new activities would not displace existing housing, necessitating construction of replacement housing elsewhere, and would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. The proposed new activities do not include the extension of roads or other infrastructure. Therefore, the proposed activities would have ***no impact*** on population or housing.

10.3.10 Public Services

Law enforcement and emergency response in the HCP area are performed mostly by CDPR rangers, park aides, and lifeguards, although non-CDPR staff from federal, state, and local agencies also provide law enforcement or emergency services in certain instances. For example, the U.S. Coast Guard performs search-and-rescue operations for lost watercraft in the ocean, and CDFW wardens enforce California Fish and Game Code regulations for fishing and other resources activities in the HCP area. The California Department of Forestry and Fire Protection (Cal Fire) provides fire protection to the HCP area. San Luis Obispo County or municipal law enforcement officers and emergency responders may also occasionally access the HCP area to enforce local laws or respond to incidents.

The proposed new activities (i.e., SNPL chick and egg capture for captive rearing if observed to be threatened by recreational activity and other non-covered species management activities [CA-12b]; stranded tidewater goby salvage [CA-13], SWPT and WSF monitoring [CA-14], dune slack restoration [CA-16], invasive aquatic species predator control ([A-17], mechanical trash removal [CA-21]; reduction of the Boneyard Exclosure and 6 Exclosure [CA-50]; and CDPR's use of UAS [CA-52]) would not increase visitor use of the HCP area or increase demand for fire or police protection, emergency services, or other public services. The proposed new project activities would have ***no impact*** on public services.

10.3.11 Transportation

Regional access to the HCP area is primarily provided via State Route 1 and U.S. 101. Just north of Arroyo Grande, State Route 1 splits from U.S. 101, running more westerly through Grover Beach and Oceano. Annual average daily traffic volumes on this portion of State Route 1 range from approximately 5,900 to 11,100 vehicles (Caltrans 2023). Pismo State Beach can be accessed from State Route 1 primarily via Grand Avenue in the City of Grover Beach or Pier Avenue in Oceano. These entrances provide sand ramps that lead vehicles down onto the beach and serve as the primary access to the SVRA. Average daily traffic volumes on Grand Avenue and Pier Avenue in the vicinity of park entrances are approximately 1,600 and 5,000, respectively. Farther south, Oso Flaco Lake Road off of State Route 1 provides access to the Oso Flaco parking lot and boardwalk.

The proposed new activities would not increase employee-related trips to and from Oceano Dunes SVRA or Pismo State Beach; however, dune slack restoration (CA-16) would result in temporary use of construction equipment outside of public use areas, and mechanical trash removal (CA-21) would result in new sporadic vehicle use on the beach. Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), would remove a seasonal public access restriction on up to 109 acres of shoreline and sand dunes used for recreation. These activities would not result in new employee or visitor trips to the park and would not result in increased congestion on, or reduce the effectiveness of, the local and regional transportation system used to access the HCP area.

The proposed new activities are not expected to attract additional people to the area and thus would not increase vehicle, bicycle, or pedestrian traffic or use of mass transit systems in the region, nor would they impact air traffic patterns. Therefore, the proposed new activities would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, or conflict with an applicable congestion management program. The proposed new activities do not include any roads, driveways, or intersections and would not increase hazards due to a design feature nor would they affect

emergency access. Therefore, the proposed new activities would have ***no impact*** related to transportation.

10.3.12 Utilities and Service Systems

The HCP area has limited utilities and service systems due to the vast acreage of open sand dunes and other open space lands that are not permanently developed for residential, commercial, industrial, or other inhabitable use. There are typical urban utilities (gas, electricity, sewer, water, and telecommunications) along the streets that serve the HCP area, including Grand Avenue and Pier Avenue.

Dune slack restoration (CA-16), mechanical trash removal (CA-21), and changes to seasonal exclosure boundaries (CA-50) would not increase park staffing or visitation. CDPR proposed new activities would neither involve wastewater treatment nor require construction of new or expanded water or wastewater treatment facilities. The proposed new activities do not involve new use of water supplies or increased park use; thus, they would not require the construction of new stormwater facilities, expansion of existing facilities, or implementation of new or expanded entitlements. Furthermore, the proposed new activities would not conflict with any regulations related to solid waste. CDPR would continue to comply with all regulations related to solid waste generation and disposal. Therefore, the proposed new activities would have ***no impact*** related to utilities and service systems.

10.3.13 Wildfire

The proposed new project activities would not substantially impair an adopted emergency response plan or emergency evacuation plan. The proposed new project activities would not exacerbate wildfire risks and thereby expose park visitors to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The proposed new activities would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Therefore, the proposed new activities would have ***no impact*** related to wildfire.

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CHAPTER 11. REFERENCES

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11.2 REPORT PREPARERS

This report was prepared under the direct supervision of the CDPR Oceano Dunes District. The following individuals were involved in preparing the report.

California Department of Parks and Recreation

Jon O'Brien, Acting Superintendent
Ronnie Glick, Senior Environmental Scientist
Stephanie Little, Senior Environmental Scientist
Joanna Iwanicha, Senior Environmental Scientist
Amber Clark, Environmental Scientist
Tamar Carmona, Research Data Analyst

340 James Way, Suite 270
Pismo Beach, CA 93449

MIG, Inc.

Paula Hartman, Principal
Erik Jansen, Director of Biological Services
Kate Werner, Senior Project Manager
Megan Kalyankar, Senior Biologist
Betty Kempton, Senior Biologist and GIS Analyst*
Eleanor Cox, Senior Historian
Christina Lau, Senior Analyst
David Gallagher, Senior Biologist
Ray Lehrman, Biologist
William Deeman, Analyst
Rose Redlich, CEQA and GIS Analyst*
*No longer with MIG

2055 Junction Avenue, Suite 205
San Jose, CA 95131

ESA
Chris Dugan, Principal

11.3 PERSONS CONSULTED

U.S. Fish and Wildlife Service

Christie Boser, Fish and Wildlife Biologist, Ventura Fish and Wildlife Office
John Robles, Fish and Wildlife Biologist, Pacific Southwest Region

California Department of Parks and Recreation

Kathryn Tobias, Legal Counsel
Ron Melcer, Environmental Program Manager, Natural Resources Division