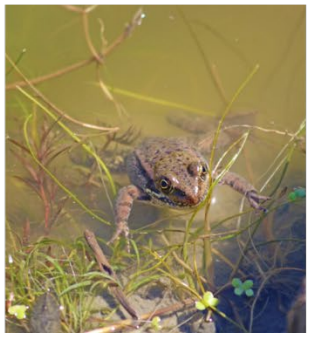
Draft Environmental Assessment for the Oceano Dunes District Habitat Conservation Plan Activities Associated with Issuance of Endangered Species Act Section 10(a)(1)(B) Permit in San Luis Obispo County, California



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ACRONYMS, ABBREVIATIONS, AND SYMBOLS

Acronym / Symbol	Full Phrase or Description
AMM	Avoidance and Minimization Measure
APCD	Air Pollution Control District
ASI	American Safety Institute
BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCC	California Coastal Commission
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
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CLTE	California Least Tern
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CRLF	California Red-Legged Frog
CRPR	California Rare Plant Rank
CSSC	California Species of Special Concern
DOI	Department of the Interior
DRI	Desert Research Institute
EA	Environmental Assessment
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESHA	Environmentally Sensitive Habitat Area
FESA	Federal Endangered Species Act
HCP	Habitat Conservation Plan
HMS	Habitat Monitoring System

Acronym / Symbol	Full Phrase or Description
ITP	Incidental Take Permit
LCP	Local Coastal Plan
MBTA	Federal Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
OHMVR	Off-Highway Motor Vehicle Recreation
OHV	Off-Highway Vehicle
PM	Particulate Matter
PMRP	Particulate Matter Reduction Plan
PRC	Public Resources Code
PWP	Public Works Plan
RWQCB	Regional Water Quality Control Board
SOA	Stipulated Order of Abatement
SCCAB	South Central Coast Air Basin
Service	U.S. Fish and Wildlife Service
SLO	San Luis Obispo
SLOAPCD	San Luis Obispo Air Pollution Control District
SNPL	Western snowy plover
SVRA	State Vehicular Recreation Area
UAS	Unmanned Aircraft System
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
WPT	Western pond turtle

Chapter 1 **Purpose and Need for Action**

1.1 Introduction

California Department of Parks and Recreation (CDPR) manages and operates Pismo State Beach and Oceano Dunes State Vehicular Recreation Area (SVRA), collectively Oceano Dunes District, located in San Luis Obispo County, California (Figure 1). Federally- and State-listed endangered or threatened species, including western snowy plover (*Charadrius nivosus nivosus*; SNPL), California least tern (*Sterna antillarum browni*; CLTE), California red-legged frog (*Rana draytonii*; CRLF), and tidewater goby (*Eucyclogobius newberryi*) occur in the Oceano Dunes District. Therefore, 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 (Service or USFWS) for issuance of an incidental take permit (ITP) for federally-listed animal species as authorized under Section 10(a)(1)(B) of the Federal Endangered Species Act (FESA; 16 USC § 1531 et seq.). The HCP provides the basis for Service issuance of the ITP authorizing incidental take[1] for a 25-year permit term. Additionally, the HCP addresses six Federal- and/or State-listed plant species.

Proposing to issue an ITP requires the Service to act as lead agency for compliance with the National Environmental Policy Act (NEPA; 42 USC § 4321 et seq.). In conformance with NEPA, Council on Environmental Quality NEPA regulations (40 CFR §§ 1500–1508), and Department of the Interior (DOI) Regulations (43 CFR Part 46), the purpose of this Environmental Assessment (EA) is to evaluate and disclose any potential environmental impacts associated with the CDPR Oceano Dunes District HCP and issuance of an ITP (Proposed Action). The Proposed Action would ensure Oceano Dunes SVRA and Pismo State Beach could operate in compliance with FESA.

In separate action, CDPR has prepared a Draft Environmental Impact Report (EIR) for the HCP pursuant to the California Environmental Quality Act (CEQA). The EIR is incorporated into the EA by reference.

The Federal action permits incidental take from CDPR's ongoing park operations (visitor use, natural resource management, park maintenance, visitor services, and other activities governing park operations), proposed changes to those operations, and potential future activities. Accordingly, the EA analyzes the direct, indirect, and cumulative effects on the human environment related to the Service's action of issuing an ITP, thus allowing covered activities implemented consistent with the permit terms to occur without violating FESA. Future activities may require further environmental review and approval by CDPR and potential permitting from other agencies as described in HCP EIR section 2.5.3. Service issuance of the ITP covering these activities would not entitle CDPR to any approvals

[1] 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 Service 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 Service 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.

required by other agencies, authorize the land uses themselves, intensify park uses, or authorize new classes of activity that are inconsistent with existing park operations.

1.2 Project Location and Background

The proposed HCP covers two coastal Oceano Dunes District park units managed by CDPR, located in San Luis Obispo County, California (Figure 1). 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[2] § 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 National Wildlife Refuge 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).

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.

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 3; Figure 4). 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.

Some areas of Pismo State Beach are closed to vehicles, and some areas are open to street-legal vehicles only, while other areas are open to off-highway motor vehicles (OHVs) and street legal vehicles. The portion of Pismo State Beach north of Grand Avenue is closed to non-CDPR vehicle traffic. The public is allowed to drive street-legal 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 4; Figure 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 (Post) 2 (Figure 3; Figure 4). Pismo State Beach offers a variety of motorized and non-motorized recreational opportunities (Figure 5, Photograph 5).

The Dunes Preserve is a 695-acre subunit of Pismo State Beach with undeveloped 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). The preserve is open to pedestrian and equestrian access and closed to vehicle use.

[2] All references to PRC refer to the California Public Resources Code.

The 70-acre Pismo Lake area (Figure 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 EA for mapping purposes. No management plan or future development design is currently in effect for the area.

Oceano Dunes SVRA. The Off-highway Motor Vehicle Recreation (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:

> 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. (CDPR 2009)

The SVRAs are operated consistent with the legislative mandate requiring that SVRAs are managed and operated to provide the fullest appropriate public use of the vehicular recreational opportunities present, while providing for the conservation and improvement of natural resource values over time (PRC § 5090.01 et seq., including § 5090.43(a)).

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 these two park units, approximately 1,305 acres are set aside for OHV use in 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 (Figure 5, Photographs 3 and 4).

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 6). The open riding area is heavily used for vehicle-related recreation and camping (Figure 5, Photograph 5). The safety and education center kiosk is a landmark within the SVRA (Figure 5, Photograph 6). Roughly 300 acres of the open riding area are seasonally restricted (March through September) from all public entry by fencing (i.e., Southern Exclosure) and signage (Figure 7) to provide protected nesting habitat for SNPL and CLTE (Figure 5, Photographs 7, 8, 9, and 10). Wind fencing also occurs within the open riding area (Figure 5, Photographs 11 and 12).

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 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 from the open riding area at the Boneyard gate during the non-breeding season (Figure 8). This area can also be accessed from the shoreline during the non-breeding season for SNPL and CLTE when shoreline access is not restricted by fencing (i.e., seasonal exclosure) erected by CDPR to protect breeding SNPL and CLTE.

1.3 Purpose and Need

Purpose: The Service's purpose in considering the proposed action is to fulfill its authority under FESA section 10(a)(1)(B). Non-Federal applicants, whose otherwise lawful activities may result in take of FESA-listed wildlife, can apply to the Service for incidental take authority so that their activities may proceed without potential violations of section 9.

To carry out these responsibilities, the Service must comply with a number of environmental laws and regulations, Executive Orders (EOs), and agency directives and policies. As the Service fulfills these responsibilities and obligations, the Service will:

- ensure that issuance of the ITP and implementation of the HCP achieve long-term species and ecosystem conservation objectives at ecologically appropriate scales, and
- ensure that the conservation actions approved with issuance of the ITP occur within a spatially explicit Landscape Conservation Design capable of supporting species mitigation projects over the long-term, or for a period commensurate with the nature of the impacts.

Need: Section 10 of FESA specifically directs the Service to issue ITPs to non-Federal entities for take of endangered and threatened species when the criteria in section 10(a)(2)(B) are satisfied by the applicant. Once the Service receives an application for an ITP, the Service needs to review the application to determine if it meets issuance criteria. The Service also needs to ensure that issuance of the ITP and implementation of the HCP complies with other applicable Federal laws and regulations. The Service must ensure the permit decision complies with the National Historic Preservation Act; treaties; and Executive Orders 11998, 11990, 13186, 12630, and 12962. In addition, the Service enforces the Bald and Golden Eagle Protection Act (BGEPA), the Migratory Bird Treaty Act (MBTA), and other requirements of FESA in addition to section 10. If the Service issues an ITP, it may condition the permit to ensure the permittee's compliance with BGEPA, MBTA, and all FESA requirements.

In July 2020, the Service received a complete application from CDPR for an ITP under the authority of section 10(a)(1)(B) of FESA. If the application is approved and the Service issues a permit, the ITP would authorize CDPR to incidentally take SNPL, CLTE, CRLF, and tidewater goby as a result of operating the Oceano Dunes District over a 25-year permit term. The Service has prepared this Oceano Dunes District HCP EA to inform the public of the proposed action and the effects of the proposed action and its alternatives, seek information from the public, and to use information collected and analyzed to make better informed decisions concerning this ITP application.

Chapter 2 Proposed Action and Alternatives

2.1 Alternative 1: No Action

Under the No Action Alternative, the Service would not issue an ITP to CDPR. Take of SNPL, CLTE, CRLF and tidewater goby that may occur from existing and future visitor uses and park operations at Pismo State Beach and Oceano Dunes SVRA, whether occurring presently or in the future, would be unauthorized, thus leaving CDPR compliance with FESA unresolved.

The No Action Alternative encompasses the majority of covered activities included in the Proposed Action Alternative. All but the 10 new covered activities listed in Table 2-2 are included in the No Action Alternative. Impacts discussed in the Proposed Action Alternative are resulting from those new activities only. Under the No Action Alternative, CDPR would continue its current park operations in the HCP area including park visitor activities, natural resources management, park maintenance, visitor services, and other ongoing activities that have the potential to cause take of covered species as identified in Table 2-2 (CAs 1-15, 17-19, 21-22, 26, 28-29, 32-34, 36-37, 39, 40, 44, 46, and 51). These existing activities presently occur and impacts from these activities are part of the baseline environmental conditions. The Service expects impacts from these activities would continue in the absence of issuance of an ITP.

CDPR would continue implementation of the conservation program including an annual strategy to avoid take. The existing adaptive management process would be kept in place. CDPR would continue to enforce regulations and may voluntarily continue to implement AMMs identified in HCP section 5.2.3 (see summary 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 HCP and ITP would be non-binding, and take issues would remain unresolved.

Under the No Action Alternative, take associated with new activities identified in Table 2-2 (CAs 12b, 21, 41, 48, 49, 50, and 52), whether contemplated by CDPR for immediate implementation or in the future, would not be authorized by an overarching ITP from the Service. Impacts from these potential new activities would require individual review and permitting by the Service rather than be considered all together and authorized by the Service in a single permit action for the proposed HCP. CDPR would submit individual permit applications to the Service as projects are proposed for implementation. CDPR would not undertake these activities prior to Service issuance of an ITP authorizing take associated with these activities. Therefore, these activities are not included in the No Action Alternative and not included in the environmental analysis of this alternative.

CDPR is in the process of preparing a new Particulate Matter Reduction Plan (PMRP) as part of its ongoing Dust Control Program (CA-44). PMRP elements may introduce new activity with the potential to cause take of SNPL or CLTE (Table 2-2) and is therefore included in the HCP as a covered activity. Under the No Action Alternative, CDPR would pursue implementation of this plan due to other regulatory requirements (see HCP section 2.2.5.4) and would need to seek separate take authorization from the Service if incidental take is anticipated to occur.

2.2 Alternative 2: Proposed Action (Proposed HCP)

CDPR has prepared an HCP as part of its application for an ITP authorized under Section 10(a)(1)(B) of the FESA for impacts to Federal- and State-listed endangered or threatened species occurring at Pismo State Beach and Oceano Dunes SVRA. Under the Proposed Action Alternative, the Service would issue an ITP authorizing take of covered species (Table 2-1) caused by existing and new park operations with potential to cause take (Table 2-2). The existing activities presently occur and would continue unchanged; impacts from existing activities are part of the baseline environmental conditions.

2.2.1 Covered Species

The HCP covered species include four animals and six plants, including two State threatened plants (Table 2-1). Covered species were chosen based on their listing or potential listing status as a Federally threatened or endangered species, their occurrence in the HCP area, their potential to be affected by covered activities, and the potential for take within the HCP area. Although FESA does not prohibit take of listed plant species, CDPR has included them in the HCP and requests assurances for them under Service's "No Surprises" assurances rule, discussed in section 6.4 of the HCP. More detailed information on the covered species is included in HCP sections 3.3 and 3.4. HCP Appendix A lists additional special-status species documented within 5-miles of the HCP area along with an explanation as to why each is not included as a covered species.

Table 2-1. HCP Covered Species

Species Common Name (*Scientific Name*)	Listing Status	
	State	Federal
Animals		
Western snowy plover (*Charadrius nivosus nivosus*)	CSSC	FT
California least tern (*Sterna antillarum browni*)	SE, SP	FE[1]
California red-legged frog (*Rana draytonii*)	CSSC	FT
Tidewater goby (*Eucyclogobius newberryi*)	CSSC	FE[2]
Plants[3]		
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

Listing Status:

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

[1]The Service has recommended, but not formally proposed, downlisting to "threatened."

[2]On March 13, 2014, the Service proposed to downlist from Federal endangered to threatened (USFWS 2014).

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

Note: Steelhead (*Oncorhynchus mykiss irideus*; South-Central California Coast Ecologically Significant Unit) is not proposed for coverage per 12/23/2008 letter from NOAA Fisheries (NOAA Fisheries 2008) concluding covered activities are not likely to result in take of steelhead with the implementation of AMMs; therefore, an ITP is not required.

2.2.2 HCP Activities Subject to ITP Authorization

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.

The HCP identifies park activities grouped into five categories: park visitor activities, natural resource management program, park maintenance, visitor services, and other activities. Avoidance and minimization measures (AMMs) are included to eliminate or reduce the potential for activities to impact covered species. Table 2-2 lists the HCP activities with potential for take impact requiring take authorization from the Service (see HCP section 4.7). These activities are described in detail in Chapter 2 of the HCP and are evaluated in this EA. The majority of HCP activities with potential for take are existing activities that have been occurring in the HCP area for decades. The HCP also includes new covered activities with the potential to cause new take impacts. New activities are either proposed or contemplated by CDPR as new park operations that could be implemented within the HCP area during the permit term.

Under the Proposed Action Alternative, take of covered species due to existing covered activities and new covered activities would receive ITP authorization as identified in Table 2-2.

Table 2-2. HCP Activities with Potential for Take[1]

Covered Species:	SNPL		CLTE		CRLF		Goby	
Covered Activity	Without AMMs	With AMMs	Without AMMs	With AMMs	Without AMMs	With AMMs	Without AMMs	With AMMs
Existing Covered Activities								
Park Visitor Activities								
CA-1 Motorized Recreation	Y	Y	Y	Y	Y	Y	N	N
CA-2 Camping	Y	Y	Y	Y	Y	Y	N	N
CA-3 Pedestrian Activities	Y	Y	Y	Y	Y	Y	Y	Y
CA-4 Bicycling and Golfing	Y	Y	Y	Y	N	N	N	N
CA-5 Fishing	Y	Y	Y	Y	N	N	N	N
CA-6 Dog Walking	Y	Y	Y	Y	Y	Y	Y	Y
CA-7 Equestrian Recreation	Y	Y	Y	N	Y	Y	Y	Y
CA-8 Boating/Surfing	Y	Y	Y	Y	N	N	N	N
CA-9 Aerial/Wind Driven Activities	Y	Y	Y	N	N	N	N	N
CA-10 Holidays	Y	Y	Y	Y	Y	Y	Y	Y
CA-11 Special Events	Y	Y	Y	Y	Y	N	Y	N
Natural Resources Management								
CA-12a and CA-12b SNPL and CLTE Management	Y	Y	Y	Y	N	N	N	N
CA-13 Tidewater Goby and Salmonid Surveys	Y	Y	Y	N	Y	Y	Y	Y

Table 2-2. HCP Activities with Potential for Take[1]

Covered Species:	SNPL		CLTE		CRLF		Goby	
Covered Activity	Without AMMs	With AMMs	Without AMMs	With AMMs	Without AMMs	With AMMs	Without AMMs	With AMMs
CA-14 CRLF Surveys and Management	Y	Y	Y	N	Y	Y	Y	Y
CA-15 Listed Plant Management (monitoring)	Y	Y	Y	N	Y	Y	N	N
CA-17 Invasive Plant and Animal Control	Y	Y	Y	N	Y	Y	Y	Y
CA-18 Habitat Monitoring System (HMS)	Y	Y	Y	Y	N	N	N	N
CA-19 Water Quality Monitoring	Y	Y	Y	N	Y	Y	Y	Y
Park Maintenance								
CA-21 General Facilities Maintenance	Y	Y	Y	Y	N	N	N	N
CA-22 Trash Control	Y	Y	Y	Y	N	N	N	N
CA-26 Routine Riparian Maintenance	N	N	Y	N	Y	Y	Y	Y
CA-28 Cable Fence Maintenance	Y	Y	Y	N	N	N	N	N
CA-29 Heavy Equipment Response	Y	Y	Y	Y	N	N	N	N
Visitor Services								
CA-32 Ranger, Lifeguard, Park Patrols	Y	Y	Y	Y	N	N	N	N
CA-33 Emergency Response	Y	Y	Y	Y	Y	Y	N	N
CA-34 Access by non-CDPR Vehicles	Y	Y	Y	Y	N	N	N	N
CA-36 Beach Concessions	Y	Y	Y	Y	N	N	N	N
CA-37 PB Golf Course Operations	N	N	N	N	Y	Y	N	N
CA-39 Natural History/Interpretation	N	N	Y	Y	N	N	N	N
Other HCP Covered Activities								
CA-40 Vehicle Crossing of Creeks	Y	Y	Y	Y	Y	Y	Y	Y
CA-44 Dust Control Activities – Existing	Y	Y	Y	Y	Y	N	N	N
CA-46 CDPR Ag Land Management	N	N	N	N	Y	Y	N	N
CA-51 Use of Pesticides	Y	N	Y	N	Y	Y	Y	Y
New Covered Activities								
Natural Resources Management								
CA-12b SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed Threatened by Recreational Activity and Other Non-Covered Species Management Activities	Y	Y	Y	Y	N	N	N	N
CA-12b SNPL Adult Banding	Y	Y	Y	Y	N	N	N	N
Park Maintenance								
CA-21 General Facilities Maintenance – Mechanical Trash Removal	Y	Y	Y	N	Y	N	N	N
Other HCP Covered Activities								

Table 2-2. HCP Activities with Potential for Take[1]

Covered Species:	SNPL		CLTE		CRLF		Goby	
Covered Activity	Without AMMs	With AMMs	Without AMMs	With AMMs	Without AMMs	With AMMs	Without AMMs	With AMMs
CA-41 Pismo Creek Estuary Seasonal (Floating) Bridge	Y	Y	Y	Y	Y	N	Y	Y
CA-42 Riding in 40 Acres	N	N	Y	Y	N	N	N	N
CA-44 Dust Control Activities – New PMRP Foredune Vegetation[2]	Y	Y	Y	Y	Y	N	N	N
CA-48 Oso Flaco Boardwalk Replacement	N	N	Y	Y	Y	Y	N	N
CA-49 Special Projects	Y	Y	Y	Y	Y	N	N	N
CA-50 Reduction of Boneyard Exclosure and 6 Exclosure	Y	Y	Y	Y	N	N	N	N
CA-52 CDPR Use of UAS	Y	Y	Y	Y	N	N	N	N

[1] HCP activities that do not result in residual incidental take do not require an ITP authorization and are not part of the Federal action. These activities are identified in HCP section 4.7 and include CA-15 Listed Plant Management – Propagation and Outplanting; CA-16 Habitat Restoration; CA-20 Campground Maintenance; CA-23 Wind Fencing; CA-24 Sand Ramp and other Vehicular Access Maintenance; CA-25 Street Sweeping; CA-27 Perimeter and Vegetation Island Fencing; CA-28 Cable Fence Maintenance - Replacement; CA-30 Minor Grading; CA-31 Boardwalk and Other Pedestrian Access Maintenance; CA-35 ASI Courses; CA-38 Grover Beach Lodge and Conference Center; CA-43 Safety and Education Center Replacement, CA-44 New PMRP (backdune, backdune monitoring equipment); CA-45 Cultural Resources Management; and CA-47 Maintenance of a Bioreactor on Agricultural Lands.

[2] CA-44 – New PMRP Foredune Vegetation activity includes fencing off, installing, and managing foredune vegetation. In February 2020, the 48-acre foredune was subject to varying test planting treatments. As a result, approximately 90 percent of the area has been either planted or seeded with varying levels of resulting coverage density; the remaining 4.4-acre plot was left untreated as a control.

2.2.3 HCP Conservation Program Details

The HCP conservation program would be implemented to protect and promote recovery for 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, would achieve the biological goals and objectives of the HCP. 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 summarized below.

- **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 operating the conservation program and the rationale behind the minimization and mitigation strategies. The HCP goals and objectives are summarized in EA Appendix A. Performance standards and success criteria used to determine whether the goals and objectives are met, and the success of the overall conservation program are described in HCP section 5.5.
- **Avoidance and Minimization Measures (AMMs).** AMMs for each covered species are listed in HCP section 5.3.1. These measures are designed to protect the covered

species from potentially substantial effects caused by the covered activities. Many of the AMMs are already being implemented in the HCP area and have been successful at reducing impacts to covered species.

- **Monitoring.** The monitoring program described in HCP section 5.4 provides data serving all three types of monitoring (i.e., compliance monitoring, effects monitoring, and effectiveness monitoring), as appropriate. CDPR already has a well-established monitoring program to estimate the distribution, abundance, survival, reproduction, and threats to covered species.
- **Adaptive Management.** The HCP utilizes an adaptive management strategy to address the uncertainty in the conservation of a covered species. Adaptive Management is described in HCP section 5.6.
- **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 Oceano Dunes District and other CDPR staff. HCP implementation is described in detail in HCP chapter 6.

2.2.4 Permitted Take

Proposed take limits of covered species are presented in HCP section 4.3.2 (SNPL), section 4.4.2 (CLTE), section 4.5.2 (CRLF), and section 4.6.2 (tidewater goby). A summary of take permit limits is presented in Table 2-3.

Table 2-3. Summary of Covered Species Take Limits

Nature of Take[1]	Annual Take[2] of Individuals	5-year Running Take[2] of Individuals
Summary of Estimated SNPL Take		
Park operations, recreation activities, and other non-covered species-management activities[3]	12 adults and/or juveniles; 28 chicks;[3,4] 27 eggs[3]	45 adults and/or juveniles; 88 chicks; 79 eggs
Covered species management-related activities[5]	9 adults and/or juveniles; 11 chicks; 41 eggs	17 adults and/or juveniles; 26 chicks; 80 eggs
Banding activities (capture only)	Up to 35 adults/juveniles Up to 500 chicks[6]	N/A
Summary of Estimated CTLE Take		
Park operations, recreation, and other non-covered species management activities	6 adults and/or juveniles 8 chicks 8 eggs	10 adults and/or juveniles 24 chicks 22 eggs
Covered species management-related activities[7]	7 adults and/or juveniles 8 chicks 8 eggs	15 adults and/or juveniles 40 chicks 40 eggs
Banding activities[8] (capture only)	150 chicks	Not Applicable

Covered Activity	Annual Take of Individuals	Allowable Take over Permit Term
Summary of Estimated CRLF Take		
All covered activities in aquatic habitat other than Natural Resource Management Activities	4 adults/sub-adults/juveniles 2 tadpoles 2 egg masses	20 adults/sub-adults/juveniles 10 tadpoles 10 egg masses
All covered activities occurring in CRLF upland habitat other than Natural Resource Management Activities	5 adults/sub-adults/juveniles	15 adults/sub-adults/juveniles
Natural Resource Management Activities	2 adults/sub-adults/juveniles 10 tadpoles 10 egg masses	20 adults/sub-adults/juveniles 50 tadpoles 50 egg masses
CRLF Dipnet Surveys (capture only)	20 adults/sub-adults/juveniles 50 tadpoles	N/A
Summary of Estimated Tidewater Goby Take		
Non-motorized park visitor activities	5	25
Motorized park visitor activities	5	25
Fisheries and amphibian surveys[9]	125	625
Fisheries and amphibian surveys (capture only)	N/A	N/A

Notes:

[1]Take estimates include mortality and/or injury/harm unless otherwise noted.

[2]Take numbers presented in this HCP are based on worst-case past observations of mortality and injury that have rarely been observed during the timeframe from 2002 to 2018 and do not happen every year. The numbers do recognize that not every egg or individual SNPL may be detected. The 5-year running average is intended to account for years in which a higher amount of take may occur and will not trigger an amendment to the HCP.

[3]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-covered species management activities. 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 covered species management, including new proposed activities. These are included in the total lethal take number 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.

[4]Take estimate is based on chicks that have been observed in the open riding area and subject to take by motorized and non-motorized recreation and at risk of vehicle strike. With the implementation of AMMs, such as escorting chicks back to the seasonal exclosure, the risk of lethal take and/or harm is low.

[5]Take estimate includes salvage and rescue of SNPL adults/juveniles, eggs, and chicks if they are observed to be injured, abandoned, or sick as part of the ongoing natural resources management program. Although this form of take is considered capture only, the SNPL captured are generally removed from the population in the HCP area.

[6]CDPR staff attempt to band all SNPL chicks in the HCP area. From 2003 to 2018, between 156 and 423 chicks were banded each breeding season. This estimate is intended to include any increase in future reproductive success in the HCP area.

[7]The number of birds captured for banding is not included in this estimate.

[8]CDPR staff attempt to band all CLTE chicks in the HCP area. From 2003 to 2017, between 35 and 101 chicks were banded each breeding season. This estimate is intended to include any increase in future reproductive success in the HCP area.

[9]This estimate only includes take that is incidental to the activity and results in harm or mortality of the species. This estimate does not include capture of individuals as a result of the survey.

2.3 Alternative 3: Maintain Southern Exclosure

The Southern Exclosure is a single, contiguous area, including shoreline, within the southern portion of the open riding area (approximately 300 acres) comprising the 6, 7, 8, and Boneyard exclosures that is fenced and closed to entry during the breeding season to protect nesting SNPL and CLTE (See Figure 7 for delineation of these exclosures). Under the Maintain Southern Exclosure Alternative, the ITP covered activities would include all activities listed in Table 2-2 with the exception of the reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). CDPR would maintain the Southern Exclosure fencing boundaries within the seasonal exclosure (comprising the Southern Exclosure and Oso Flaco Exclosure) in its current configuration to continue protecting 300 acres of primary nesting habitat for SNPL and CLTE. East Boneyard Exclosure and 6 Exclosure would remain seasonally closed 7 months out of the year; no change in visitor use or access to the East Boneyard Exclosure or 6 Exclosure would occur. CDPR would modify the HCP to remove the proposed reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). HCP section 5.2.3 regarding criteria for changes to the 6 Exclosure would be removed; however, all objectives and success criteria of HCP Table 5-7 (SNPL) and Table 5-8 (CLTE) would remain. The level of SNPL take authorized in the ITP issued by the Service would be reduced by 4 eggs and 4 chicks commensurate with the estimated take reduction associated with eliminating CA-50. All other features of the HCP would be implemented as described for the Proposed Action (Alternative 2). The purpose of maintaining the Southern Exclosure in its current size and configuration would be to reduce take impact and avoid potential disruption in the established SNPL and CLTE nesting patterns and the successes of the conservation program primarily by preserving the 6 Exclosure.

2.4 Alternative 4: Permanent Year-Round Exclosures

Under the Permanent Year-Round Exclosures Alternative, CDPR would modify existing park operations by permanently closing the 300-acre Southern Exclosure to park visitor activity. The permanent exclosures would be managed by CDPR similar to other vegetated islands, e.g., fencing maintenance, invasive plant management. The Southern Exclosure is presently closed 7 months per year and open during fall and winter months. Proposed reduction of the Boneyard Exclosure and 6 Exclosure (CA-50) would be eliminated from the HCP and take limits of SNPL and CLTE authorized by the ITP issued for the HCP area would be reduced by 4 eggs and 4 chicks commensurate with the estimated take reduction associated with eliminating CA-50 (See Figure 7 for delineation of these exclosures). All other covered activities identified in Table 2-2 would remain proposed for coverage by an ITP and the HCP would be implemented as described for the Proposed Action (Alternative 2).

The purpose of the Permanent Year-Round Exclosures Alternative would be to provide wintering shorebird protection (including SNPL) and to improve SNPL and CLTE nesting habitat quality by limiting recreation disturbance. The Scientific Subcommittee formed in

compliance with CDP 4-82-300, as amended, has long recommended that CDPR evaluate benefits of year-round exclosures. Such areas may become less productive over time as vegetation becomes established and reduces the open habitat favored by nesting SNPL and CLTE, but this possibility has not been analyzed in the HCP area. The perfect combination of open sand, microtopography, and scattered vegetation and debris is not fully known.

2.5 Summary Comparison of Alternatives

Table 2-4. Summary Comparison of Alternatives

HCP Activities	Alternative 1: No Action	Alternative 2: Proposed Action (Proposed HCP)	Alternative 3: Maintain Southern Exclosure	Alternative 4: Permanent Year-Round Exclosures
Park Visitor Activities (CA-1 to CA-11)	No change from current management.	No change from current management.	No change from current management.	No change from current management.
Natural Resources Management Program (CA-12 to CA-15, CA-17 to CA-19)	No change from current management.	Addition of SNPL chick and egg capture for captive rearing and banding of adult SNPL.	Addition of SNPL chick and egg capture for captive rearing and banding of adult SNPL.	Addition of SNPL chick and egg capture for captive rearing and banding of adult SNPL. Existing SNPL/CLTE habitat enhancement activities would not occur within permanent exclosure.
Park Maintenance (CA-CA-21, CA-22, CA-26, CA-28, CA-29)	No change from current management.	Addition of mechanical trash removal	Addition of mechanical trash removal	Addition of mechanical trash removal
Visitor Services (CA-32 to CA-37, CA-39)	No change from current management.	No change from current management.	No change from current management.	No change from current management.
Other Activities: Park operations and management of creek crossings, ag land, pesticides (CA-40, CA-CA-46, CA-51)	No change from current management.	No change from current management.	No change from current management.	No change from current management.

Table 2-4. Summary Comparison of Alternatives				
HCP Activities	**Alternative 1: No Action**	**Alternative 2: Proposed Action (Proposed HCP)**	**Alternative 3: Maintain Southern Exclosure**	**Alternative 4: Permanent Year-Round Exclosures**
Other Activities: Park management of dust control program (CA-44)	Implementation of new PMRP under preparation.	Implementation of new PMRP under preparation.	Implementation of new PMRP under preparation.	Implementation of new PMRP under preparation.
Other Activities: Potential new facilities (CA-41 to CA-42, CA-48, CA-49)	Not applicable	Pismo Creek estuary seasonal (floating) bridge, riding trail in 40 Acres, Oso Flaco Lake boardwalk replacement, and special projects.	Pismo Creek estuary seasonal (floating) bridge, riding trail in 40 Acres, Oso Flaco Lake boardwalk replacement, and special projects.	Pismo Creek estuary seasonal (floating) bridge, riding trail in 40 Acres, Oso Flaco Lake boardwalk replacement, and special projects.
Other Activities: Park management of riding area boundaries and seasonal exclosures for SNPL and CLTE nesting (CA-50)	Not applicable	Eliminate East Boneyard Exclosure (49 acres) and 6 Exclosure (60 acres) and increase camping, riding, and other recreational access on the combined 109 acres from seasonal access (5 months Oct-Feb) to year-round.	Maintain Southern Exclosure with current seasonal access, size (300 acres), and location with north boundary at Post 6 and inclusive of East Boneyard. No change to riding area.	Retain Southern Exclosure (300 acres) access restriction year-round. Eliminate shoreline riding and camping on 300 acres (incl. approx.1.5 miles of shoreline) from seasonal access (5 months Oct-Feb).
Other Activities: Park operation of UAS (CA-52)	Not applicable	Operation of UAS for data collection.	Operation of UAS for data collection.	Operation of UAS for data collection.

2.6 Alternatives Considered and Rejected

CDPR worked collaboratively with the Service to prepare the proposed HCP in support of the ITP application. Below is a discussion of alternatives considered by the Service in preparation of the EA, including suggestions received in scoping comment. Several alternatives were considered but not examined in further detail because of: 1) failure to meet the purpose and need for the project; 2) infeasibility; and 3) inability to avoid significant impacts. Alternatives considered included possible options for Service issuance of the ITP and options for park management of vehicle recreation, which could reduce or

avoid take. These alternatives are not further discussed in the EA. Alternatives rejected from further consideration include the following:

- No Take Park Operations
- Off-site Mitigation in lieu of Nesting Exclosures
- Changes in Oceano Dunes SVRA Access
- Restricted Riding Times
- Reduced Vehicle Use Limits
- Expanded Seasonal Exclosure

A discussion of these alternatives is presented in Appendix B.

Chapter 3 **Impact Assessment Methodology**

3.1 Analytical Methodology

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

Step 1: Incorporation of Avoidance and Minimization Measures (AMMs). The EA incorporates AMMs identified in the proposed HCP (section 5.3.1) as project components that are designed to minimize impacts to the covered species. The AMMs include public educational efforts, training for park-related operations staff (e.g., concessions, emergency responders), enforcement of species protection regulations, and disturbance avoidance or minimization. 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 project. Thus, the AMMs are considered to be in place when determining the level of impact, as described in the biological impact analysis.

Step 2: Identification of Existing Physical Conditions. The EA identifies the existing physical environmental conditions that exist in the proposed 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 impacts that may be associated with current park operations are part of the environmental setting. This setting constitutes the baseline physical conditions by which the Service is determining whether the physical change that occurs to the environment as a result of the Proposed Action is a major (i.e., substantial; see EA section 3.2 below for definition of impact intensities) effect.

Step 3: Identification of EA Scope. The EA impact analysis is limited in scope to the activities identified in the HCP that require take authorization under an ITP; only those activities potentially still causing take after AMMs are implemented are subject to authorization under an ITP (Table 2-2). This EA is limited in scope to assessing impacts of those activities directly or indirectly caused by issuance of the ITP. HCP activities that have no impact on covered species do not require ITP authorization from the Service and are not subject to review in this EA. HCP new activities not involving take are considered in the cumulative impact analysis as discussed in section 3.4.2 below. Issuance of an ITP for covered species does not constitute approval or commitment by subsequent permitting

agencies to approve future activities. The scope of the EA is to consider the direct, indirect, and cumulative effects of the Federal action (Proposed Action), which includes those HCP activities that require take authorization.

Step 4: Use of Best Available Data. The EA analysis is based on best available science and field survey data. CDPR has annually collected data on park resources and performed individual specialized studies, assisted by qualified professionals both in the public and private sector. The data have been used for the environmental review contained in this EA. The EA references the EIR where it is relied upon to provide additional analysis or data. CDPR has also engaged with resource agencies (e.g., Service, CDFW) during the development of the HCP and received input on the conservation program from a scientific advisory group comprised of agency representatives and environmental scientists.

Step 5: Analysis of Environmental Impacts. The EA evaluates the change to the human environment that could result from implementation of the Proposed Action and alternatives. The effects of the Proposed Action and alternatives were determined by comparing estimates of resulting conditions with baseline conditions. The EA analyzes the potential environmental impacts stemming from incidental take of covered species associated with all phases of the proposed HCP. This analysis is based on the incremental change to the existing physical conditions that would result from the Proposed Action and alternatives over the 25-year permit term. The scope of the impact analysis considers the public comments submitted by agencies and interested individuals during the 30-day public review period for the 2018 Notice of Intent (NOI). The EA's impact analyses consider the direct, indirect, and cumulative impacts of issuing an ITP for the proposed HCP, as well as the short-term and long-term impacts of the HCP.

Step 6: Inclusion of Mitigation Measures. CDPR's EIR describes the feasible mitigation measures proposed to avoid or minimize the HCP's significant impacts under CEQA. These mitigation measures, which address potential air quality impacts, would be implemented in addition to the AMMs incorporated into the HCP. Because CDPR would adopt the mitigation measures in a Mitigation Monitoring and Reporting Program prior to approving the Proposed Action, they are considered incorporated into the proposed HCP activities evaluated in this EA.

3.2 Definition of Impact Intensities

This EA evaluates potential impacts of the alternatives on the affected environment considering direct effects, indirect effects, and cumulative effects. Effects can be beneficial or adverse; major, moderate, or minor; and short- or long-term. The intensity of an effect is evaluated using the following definitions. These determinations reflect inclusion of all AMMs identified in the HCP as well as mitigation identified in CDPR's HCP EIR.

Negligible – Minimal impact on the resource would occur; any change that might occur would be barely perceptible and not easily measurable. Negligible impacts have not been observed and are extremely unlikely to occur.

Minor – Change in a resource would occur, but no substantial resource impact would result; the change in the resource would be detectable but would not alter the condition of the resource. Minor impacts have either been observed or are thought to occur, and most or all impacts are thought to be avoided with the implementation of AMMs. Both lethal and non-lethal biological impacts can be minor depending on the frequency, duration, and location of

the activity. Lethal impacts include both direct and indirect mortality. Non-lethal impacts include injury, capture, and/or disturbance to such a degree that it could result in injury.

Moderate – Noticeable change in a resource would occur, and this change would alter the condition of the resource, but the integrity of the resource would remain intact. Moderate impacts have been observed or are thought to occur and cannot be avoided. Both lethal and non-lethal biological impacts can be moderate depending on the frequency, duration, and location of the activity. Lethal impacts include both direct and indirect mortality. Non-lethal impacts include injury, capture, and/or disturbance to such a degree that it could result in injury.

Major – Substantial impact or change in a resource would occur that is easily defined and highly noticeable and that measurably alters the condition of the resource; the integrity of the resource may not remain intact.

Beneficial – Changes that occur are beneficial to the resource, e.g., habitat improvements, reduced mortality, and/or increased reproductive success.

3.3 Resources Dismissed from Further Evaluation

The Proposed Action would result in no or negligible impacts to flood plains, prime and unique farmlands, geology/hydrogeology, and mineral resources due to the absence of the resource or the nature of the Proposed Action; therefore, they are dismissed from further detailed analysis. The covered activities included in the Proposed Action do not introduce new park operation activities beyond those presently occurring that would affect existing baseline conditions for climate change, human health and safety, noise, visual resources, and transportation. These resources have been dismissed from further evaluation.

The Proposed Action would not cause socioeconomic or environmental justice impacts. It would not reduce recreational opportunity for minority or low-income populations, nor would it disproportionately affect the health or environmental conditions of minority or low-income populations residing in adjacent communities. The Proposed Action would not change access to low-income recreation opportunity, although it would increase the area available for year-round low-cost camping. Windblown sand from the project activities could contribute to exceedances of air quality health standards (discussed in EA section 6.2) downwind of Oceano Dunes SVRA; however, CDPR has incorporated mitigation into the HCP EIR that avoids exceedances of air quality standards.

3.4 Cumulative Impacts

3.4.1 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 affected environment section of each EA 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 depending upon the individual resource being evaluated.

3.4.2 Cumulative Project List

The cumulative analysis considers past, present, and reasonably foreseeable projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Federal lead agency. The cumulative analysis includes projects that would result in incremental impacts to the Proposed Action. Past and present projects are reflected in the discussion of ongoing park operations and existing covered activities identified in the HCP and in the Alternative 2 Proposed Action description. The projects considered for the cumulative impact analysis include all HCP future activities not considered in the scope of the Federal action as described above in section 3.1 (Step 3), plus other potential future projects identified in Table 3-1. The future HCP projects with specific known locations are shown in Figure 9. Potential CDPR projects being considered for inclusion in the PWP are shown in Figure 10

As described in HCP section 2.2.7, CDPR is preparing a Public Works Plan (PWP). The PWP is a long-range land use management plan for compliance with the California Coastal Act that is reviewed and certified by the California Coastal Commission (CCC). The PWP will include site-specific proposed park improvement projects including those listed in Table 3-1. CDPR has held multiple public input meetings and is further refining project concepts and preparing an EIR for the PWP. The PWP projects are reasonably foreseeable future projects and included in the HCP EIR cumulative impact analysis. Because the PWP is in preparation, the PWP projects are subject to revision. An “X” in Table 3-1 indicates which impacts from these projects could combine with the Proposed Action to create a cumulative impact. These potential cumulative impacts are addressed in the individual resource chapters.

Table 3-1. List of Projects and their Potential for Cumulative Impacts with an ITP

Project Type	Location	Project Impact					Status
		Fish / Wildlife	Vegetation	Air Quality	Cultural / Tribal	Recreation	
CDPR HCP Future Activities not Covered by ITP							
CA-15: Listed Plant Management – Propagation and Outplanting	Oceano Dunes SVRA	X	X				Potential Future
CA-28: Cable Fence Maintenance – Replacement	Oceano Dunes SVRA	X	X				Potential Future
CA-38: Grover Beach Lodge and Conference Center	Pismo State Beach. West end of Grand Avenue in Grover Beach	X	X	X		X	Potential Future
CA-43: Replacement of Safety and Education Center	Oceano Dunes SVRA	X	X		X	X	Potential Future

Table 3-1. List of Projects and their Potential for Cumulative Impacts with an ITP

Project Type	Location	Project Impact					Status
		Fish / Wildlife	Vegetation	Air Quality	Cultural / Tribal	Recreation	
CA-44: Dust Control Activities – New PMRP (backdune)	Oceano Dunes SVRA.	X	X	X	X	X	Identified in 2019 Draft Plan.
CDPR Public Works Plan Projects							
Project A: Oso Flaco Campground and Day Use Project	Oceano Dunes SVRA. Near Oso Flaco Lake	X	X	X	X	X	Potential Future
Project B: Park Corporation Yard Improvement Project	Pismo State Beach Corporation Yard. State Route 1 near Grover Beach	X	X	X	X		Potential Future
Project D: Oceano Campground Infrastructure Improvement Project	Pismo State Beach. Pier Avenue near Grover Beach	X	X	X	X	X	Potential Future
Project E: Grand Avenue and Pier Avenue Kiosks, Pier Avenue Lifeguard Tower	Pismo State Beach. Pier and Grand Avenues near Grover Beach	X		X		X	Potential Future
Project F: North Beach Campground Facility Improvements	Pismo State Beach. In Pismo Beach	X		X	X	X	Potential Future
Project G: Butterfly Grove Public Access	Pismo State Beach. In Pismo Beach	X	X		X	X	Potential Future
Project H: Pismo State Beach Boardwalk	Pismo State Beach. Between Grand Avenue and Pier Avenue near Grover Beach	X	X	X	X	X	Potential Future
U.S. Fish and Wildlife Service							
Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan	Guadalupe-Nipomo Dunes National Wildlife Refuge south of Oso Flaco Lake Natural Area	X	X			X	Approved in 2016
Local Agencies							
Arroyo Grande Creek Channel Waterway Management Plan	Arroyo Grande Creek	X	X				Approved in 2010

Table 3-1. List of Projects and their Potential for Cumulative Impacts with an ITP							
Project Type	Location	Project Impact					Status
		Fish / Wildlife	Vegetation	Air Quality	Cultural / Tribal	Recreation	
(sediment and vegetation removal)							

Chapter 4 Fish and Wildlife

4.1 Affected Environment

The affected environment for fish and wildlife is presented in EA Appendix C. Also refer to HCP Maps 1 through 27.

A list of all fish and wildlife species considered in this analysis and the potential for existing and new covered activities to impact each species is presented in EA Appendix C, Table C-1. The special-status animal species occurring in the HCP area with a moderate or high potential to be affected by ITP covered activities are listed in Table C-1 and further evaluated below. See EIR Appendix C for a description of species considered in this analysis.

4.2 Environmental Consequences

4.2.1 Impact Classifications

Potential effects of project alternatives on covered and non-covered special-status species fall into five categories: mortality or injury, disturbance, habitat reduction, indirect impacts, and beneficial effects, as defined below:

- **Mortality or Injury.** The covered activity has directly caused mortality or injury to a special-status species in the past or has the potential to do so within the permit term due to the nature of the activity. Examples include covered species being struck by a vehicle or stepped on by a pedestrian or domestic animal.
- **Disturbance.** The covered activity has caused disturbance to a special-status species in the past or has the potential to do so within the permit term 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 special-status 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 special-status species' habitat in the past or has the potential to do so within the permit term due to the nature of the activity. Examples of permanent habitat impacts include the reduction in habitat quality from motorized vehicle

recreation, the loss of nesting habitat due to the reduction in the breeding exclosure, and/or the permanent loss of habitat from small projects.

- **Indirect Impacts.** The covered activity has caused indirect impacts to special-status species in the past or has the potential to do so within the permit term due to the nature of the activity. Indirect impacts include indirect negative effects to special-status species from covered activities, such as an increase in the likelihood of predation or disease, or exposure to pollutants.
- **Beneficial Effects.** Covered activities with beneficial effects reduce the likelihood of special-status species' mortality or injury from other covered activities, protect special-status species' suitable habitat, and/or aid in the maintenance or recovery of special-status species' populations. Examples include the breeding season exclosures, monitoring for SNPL and CLTE, CRLF surveys, tidewater goby and salmonid surveys, and listed plant management activities.

CDPR manages these effects through implementing many measures, 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 HCP section 5.3.1.

4.2.2 Alternative 1: No Action

Under the No Action Alternative (section 2.1), existing activities identified in Table 2-2 would continue. Impacts to Federal-listed fish and wildlife species from existing park operations that have occurred in the past would have the potential to continue in the future. Under the No Action Alternative, the Service would not issue an ITP for SNPL, CLTE, CRLF, and tidewater goby and all take incidents occurring from park operations in the HCP area would be unauthorized. As a result, the No Action Alternative would not resolve unauthorized take occurring in the HCP area leaving CDPR operations out of compliance with FESA.

Under this alternative, CDPR funding of the current conservation program implemented in the HCP area could continue but this alternative would not ensure ongoing conservation. Without the CDPR funding commitments mandated by an ITP, 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.

The impacts of these activities on fish and wildlife are fully described in EA Appendix D. Impacts to wildlife movements are fully described in EA Appendix D. These impacts are briefly summarized below.

4.2.2.1 Special-Status Species

Impacts to special-status animal species predominately occur from visitor use activities. Park visitors have access to almost 4,100 acres of the approximately 5,000-acre HCP area (EA Appendix C, Table C-5). To a lesser extent, impacts to special-status animal species occur from park operation and management activities. Natural resources management activities such as species conservation and habitat enhancement activities also have a beneficial effect on special-status species. Existing activities occurring outside of special-status species' habitat have no or negligible risk of impacting these species.

1) Western Snowy Plover

Existing Impact. Non-lethal and lethal take of SNPL from existing activities has occurred in the HCP area historically as presented in EIR Table 6-8. Some years have no incidents of take, some years may see take of several eggs, chicks, or adult/juveniles. Infrequently, large numbers of take (i.e., between 10 and 28 individuals) have occurred. The most common cause of take is vehicle strike. CDPR implements SNPL AMMs 1–21, 23–45, 47–64, 67–103, 110–113, and 115–122 to avoid and minimize take of SNPL from existing activities. While these measures have not eliminated take of SNPL, SNPL continue to breed and forage and increase in numbers where active conservation management occurs (HCP section 3.3.1). This side-by-side existence of visitor recreation and successful SNPL conservation are part of the existing operations and conditions within the HCP area. The SNPL breeding success within the protected nesting areas has increased the SNPL population in the HCP area, thus mitigating the loss from lethal take. CDPR would implement new SNPL AMMs 65 and 66 to further address impacts of existing covered activities.

The following existing impacts would continue under the No Action Alternative.

- ***Take Impact.*** The take impact from existing activities on the SNPL population residing in the HCP area is minor to moderate. The No Action Alternative would not change the risk of take from existing activities and take impact of existing park operations would remain unchanged resulting in ***no*** new impact.
  - ***Non-Lethal.*** Existing activities have potential to disturb SNPL causing flushing; interruption of nesting, foraging, or roosting; nest abandonment; physiological stress; and/or reproductive failure. Existing activities also have potential to separate chicks from adult(s), so they are inadequately attended or exposed to predation/inclement weather. This impact also includes capture of up to 500 chicks annually for banding activities. Effects are reduced through implementation of SNPL AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Lethal.*** Existing activities have potential to directly or indirectly harm, injure, or kill individual SNPL. The following impacts could occur: chicks entering the open riding area and exposed to vehicle strike; chicks, eggs, adults, juveniles potentially exposed to predation by increased trash associated with recreational activity or by increased vegetation; adults/chicks/eggs crushed by vehicles; adults/chicks injured/killed during banding; chicks injured/killed by adult aggression during brood movement caused by activities; and adults killed or injured by striking protective fencing. Effects are avoided or reduced through implementation of SNPL AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Habitat.*** Existing activities have the potential to reduce the amount and/or quality of existing suitable nesting or wintering habitat for SNPL. Heavy recreational use may make some designated SNPL critical habitat unsuitable for nesting or wintering activities. Recreation activities were occurring at the time critical habitat was designated. Critical habitat would not be substantially changed by recreation activities. The ongoing impact is minor to moderate.

- ***Beneficial.*** Existing natural resource management activities and park maintenance activities have the potential to improve SNPL habitat quality, provide protected nesting areas, reduce threats such as predation, and increase reproductive success and chance of survival. Data collection through monitoring would inform management decisions further benefiting habitat and species conservation. The ongoing impact is beneficial.

New Impact. The following new impacts would occur under the No Action Alternative.

- ***Take Impact.*** New take of SNPL could potentially occur from CDPR implementation of new dust control activity (CA-44 – New PMRP Foredune Vegetation). Estimated take increase attributed to CA-44 – New PMRP Foredune Vegetation is four eggs and four chicks. The resulting new impact would be ***minor to moderate***.
  - ***Non-Lethal and Lethal.*** Recent closure of the 48-acre foredune area to motorized recreation and camping and new closure of an additional 4-acre foredune area could make these areas more conducive to SNPL nesting prior to vegetation establishing[3]. Chicks moving from the foredune area to shoreline would be vulnerable to injury or mortality from pedestrians or vehicles. The closure of the foredune area could cause vehicles to drive closure to the edge of the 6 Exclosure potentially increasing disturbance of breeding SNPL adults and affect chicks or eggs. Chicks or nests could be abandoned, left unattended for prolonged periods of time, or exposed to predation. In addition, chicks could be orphaned or inadequately nourished, and eggs could be buried by sand or not properly incubated. Development of the new foredune areas would remove some shoreline area that can be utilized for both driving and foraging. As a result, SNPL could be more vulnerable to vehicle strike due to the reduced area along the shoreline. SNPL AMMs 1-140 apply to CA-44, as appropriate, to reduce potential impacts. The resulting new impact would be minor to moderate lethal and non-lethal take.
  - ***Habitat.*** Establishing foredune vegetation for dust control would reduce the quality of up to 52 acres of primary SNPL breeding habitat, all of which is designated critical habitat. Additional plantings are expected to be randomly spaced to avoid creating areas of heavy vegetation; therefore, the area would retain most of the physical and biological features essential to the conservation of SNPL. Vegetation could potentially increase predation on adults, chicks, and/or eggs. CDPR implements a predator management program. The resulting new impact to critical habitat would be moderate.
- ***Beneficial.*** New dust control activities under CA-44 – New PMRP Foredune Vegetation would have no beneficial impact on SNPL.

2) California Least Tern

Existing Impact. Non-lethal and lethal take of CLTE has occurred in the HCP area historically as presented in HCP EIR Table 6-9. The most likely, albeit rare, cause of take is vehicle strike. CDPR implements CLTE AMMs 1–36, 38–53, 56–90, 96–100, and 104–111 to avoid and minimize take of CLTE from existing activities. While these measures have not

[3] In February 2020, the 48-acre foredune was subject to varying test planting treatments. As a result, approximately 90 percent of the area has been either planted or seeded with varying levels of coverage density; the remaining area was left untreated as a control.

eliminated take of CLTE, CLTE continue to breed and forage and increase in numbers where active conservation management provide habitat enhancement and protection (HCP section 3.3.2). This side-by-side existence of visitor recreation and successful CLTE conservation are part of the existing operations and conditions within the HCP area. The CLTE breeding success within the protected nesting areas has increased the CLTE population in the HCP area, thus, negating the loss from lethal take.

The following existing impacts would continue under the No Action Alternative.

- ***Take Impact.*** The take impact from existing activities on the CLTE population residing in the HCP area is minor to moderate. The No Action Alternative would not change the risk of take from existing activities and take impact of existing park operations would remain unchanged resulting in ***no*** new impact.
  - ***Non-Lethal.*** Existing activities have potential to disturb CLTE, causing flushing; interruption of nesting, foraging, or roosting; nest abandonment; physiological stress; or reproductive failure. Existing activities also have potential to separate chicks from adult(s), so they are inadequately attended or exposed to predation/inclement weather. Existing activities may also result in capturing chicks/eggs. Effects are avoided or reduced through implementation of CLTE AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Lethal.*** Existing activities have potential to directly or indirectly harm, injure, or kill individual CLTE. The following impacts could occur: chicks entering the open riding area and exposed to vehicle strike; chicks, eggs, adults, juveniles potentially exposed to predation by increased trash associated with recreational activity or by increased vegetation; adults/chicks/eggs crushed by vehicles; chicks injured/killed during banding; and adults killed or injured by striking protective fencing. Effects are avoided or reduced through implementation of CLTE AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Habitat.*** Existing activities have the potential to reduce the amount and/or quality of existing suitable habitat for CLTE due to the high level of disturbance. The ongoing impact is minor to moderate.

- **Beneficial Impact.** Existing activities have the potential to improve CLTE habitat quality, provide protected nesting areas, reduce threats such as predation, and increase reproductive success and chance of survival. Data collection through monitoring would inform management decisions further benefiting habitat and species conservation. The ongoing impact is beneficial.

New Impact. The following new impacts would occur under the No Action Alternative.

- ***Take Impacts.*** Impacts to CLTE could potentially occur from new dust control activity (CA-44 – New PMRP Foredune Vegetation). However, due to the implementation of AMMs, no increase in take incidents is anticipated from this activity. The resulting new impact would be ***minor to moderate***.
  - ***Non-Lethal and Lethal.*** Recent closure of the 48-acre foredune area to motorized recreation and camping and new closure of an additional 4-acre foredune area could make these areas more conducive to CLTE nesting prior to establishment of vegetation. Chicks moving from the foredune area to shoreline would be vulnerable to injury or mortality from pedestrians or vehicles. Chicks or

nests could be abandoned, left unattended for prolonged periods of time, or exposed to predation. In addition, chicks could be orphaned or inadequately nourished, and eggs could be buried by sand or not properly incubated. The closure of the foredune area could cause vehicles to drive closer to the edge of the 6 Exclosure potentially increasing disturbance of breeding CLTE adults and affect chicks or eggs; however, CLTE have not nested near the northern limit of the 6 Exclosure for at least 8 years. CLTE night roosting in the 6 Exclosure is not expected to be impacted by the new foredune area. CLTE AMMs 1-125 apply to CA-44 as appropriate to reduce potential impacts. The resulting new impact would be minor to moderate lethal and non-lethal take.

- ***Habitat.*** Establishing foredune vegetation for dust control would reduce the quality of up to 52 acres of primary CLTE breeding habitat. CLTE currently nest almost exclusively within the Southern Exclosure and have avoided nesting in the foredune location (north of Post 6) due to the heavy recreation use occurring in this area. Additional plantings are expected to be randomly spaced to avoid creating areas of heavy vegetation; therefore, the area would retain most of the habitat features essential to the conservation of CLTE. The resulting new impact to breeding habitat would be minor.

- ***Beneficial.*** New dust control activities under CA-44 – New PMRP Foredune Vegetation would have no beneficial impact on CLTE.

3) California Red-legged Frog

Existing Impact. There have been no recorded instances of CRLF take from existing activities within the HCP area and few CRLF have been found in the HCP area. CDPR implements CRLF AMMs 1-26, 28-37 and 42-49 to avoid and minimize take of CRLF from existing activities.

The following existing impacts would continue under the No Action Alternative.

- ***Take Impact.*** The take impact from existing activities on CRLF population residing in the HCP area is minor to moderate. The No Action Alternative would not change the risk of take from existing activities and take impact of existing park operations would remain unchanged resulting in ***no*** new impact.
  - ***Non-Lethal.*** Existing activities have potential to disturb CRLF individuals resulting in physiological stress or exposing individuals to predation. Existing activities also have the potential to expose individuals to increased turbidity. Existing activities have the potential to capture individuals. Effects are avoided or reduced through implementation of CRLF AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Lethal.*** Existing activities have potential to directly or indirectly harm individual CRLF. The following impacts could occur: aestivating or dispersing individuals struck by vehicles or equipment; individuals exposed to increased predation; individuals exposed to introduced disease; and individuals injured, killed, or egg masses damaged. Effects are avoided or reduced through implementation of CRLF AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Habitat.*** Existing activities have the potential to reduce the amount and/or quality of existing suitable habitat for CRLF. Individuals could be exposed to reduced

water quality and/or permanent and/or temporary loss of breeding or upland habitat could occur from existing activities. The ongoing impact is minor.

- ***Beneficial.*** Existing activities have the potential to improve habitat quality through reduction of invasive species and improved water quality. The ongoing impact is beneficial.

New Impact. The following new impacts would occur under the No Action Alternative.

- ***Take Impact:*** No new take of CRLF is expected from new dust control activity (CA-44 – New PMRP Foredune Vegetation). The resulting new impact on CRLF from this activity would be ***negligible***.
  - ***Non-Lethal and Lethal.*** This activity is outside of aquatic breeding habitat. The activity could have minimal effect on dispersing CRLF. The new impact would be negligible.
  - ***Habitat.*** The new PMRP foredune vegetation could alter up to 52 acres of upland dispersal habitat through planting of foredune vegetation and 3 acres through placement of dust control devices and monitoring equipment. Dust control activities would establish vegetation within foredune habitat resulting in new upland cover habitat, which would be an overall beneficial habitat impact.
- ***Beneficial.*** New dust control activities under CA-44 – New PMRP Foredune Vegetation would establish vegetation within foredune areas creating new upland cover habitat. This would be a new beneficial impact.

4) Tidewater Goby

Existing Impact. Other than two individuals that were harmed during fisheries surveys, there have been no recorded instances of tidewater goby take, although take could be difficult to document and may be unknowingly occurring. CDPR implements Tidewater Goby AMMs 1-37, 39-44, and 47-55 to avoid and minimize take of tidewater goby from existing activities.

The following existing impacts would continue under the No Action Alternative.

- ***Take Impact.*** The take impact from existing activities on the tidewater goby population residing in the HCP area is minor to moderate. The No Action Alternative would not change the risk of take from existing activities and take impact of existing park operations would remain unchanged resulting in ***no*** new impact.
  - ***Non-Lethal.*** Existing activities have potential to cause physiological stress of tidewater goby by disturbance of individuals, habitat, or egg burrows; expose individuals or egg burrows to decreased water quality or increased turbidity; and capture individuals. Effects are avoided or reduced through implementation of tidewater goby AMMs (HCP section 5.3). The ongoing impact is minor to moderate.
  - ***Lethal.*** Existing activities have potential to harm individual tidewater goby directly or indirectly through killing or injuring individuals, expose individuals to contaminated prey or vegetation, or by damaging to or collapsing egg burrows. Effects are avoided or reduced through implementation of tidewater goby AMMs (HCP section 5.3). The ongoing impact is minor to moderate.

- ***Habitat.*** Critical habitat for tidewater goby is designated within the HCP area in Pismo Creek and Oso Flaco Lake. Existing or new activities occurring in the HCP would not permanently modify or reduce the quality of tidewater goby habitat, including critical habitat, in the HCP area. There is no ongoing impact.

- ***Beneficial.*** Existing activities of surveying and habitat management would provide information necessary to contribute to conservation of the species and/or improve tidewater goby habitat in the long-term. Pesticides have a beneficial effect on tidewater goby habitat by preventing the encroachment of invasive plant species. The ongoing impact is beneficial.

New Impact. No new take of tidewater goby is expected from new dust control activity (CA-44 – New PMRP Foredune Vegetation). This activity would not occur in tidewater goby habitat. The result would be ***no*** new impact.

5) California (Coast) Horned Lizard and Silvery Legless Lizard

Existing Impact. Coast horned lizard and silvery legless lizard may occur throughout the HCP area, although they are considered uncommon in the HCP area. The impact from existing activities on these species is minor to moderate. The No Action Alternative would not change the risk of impact to these species and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities have potential to disturb coast horned lizard and silvery legless lizard causing increased stress. Individuals could be deterred from foraging or resting. Activities could also cause individuals to move from cover into more open habitat where they are at risk of predation. The ongoing impact is minor to moderate.

- ***Lethal.*** Existing activities have potential to injure or kill coast horned lizard and silvery legless lizard. The ongoing impact is minor to moderate.

- ***Habitat.*** There are no ongoing habitat impacts.

- ***Beneficial.*** Trash control has a moderate beneficial effect by reducing the presence of predators. Pesticide use, invasive plant removal, and listed plant management improves habitat by preventing the encroachment of invasive plant species. The ongoing impact is beneficial.

New Impact. The potential to encounter coast horned lizard and silvery legless lizard would be highest in already vegetated or moist areas, which would be unlikely to require dust control measures; however, these species can be found in open sand areas as they travel and disperse between more suitable habitat areas. Impacts from CA-44 – New PMRP Foredune Vegetation dust control activities are unlikely and would be ***minor.***

The following new impacts would occur under the No Action Alternative.

- ***Non-Lethal and Lethal.*** These species could be attracted to areas where dust control measures are implemented (e.g., straw bales, wind fencing, and vegetation); therefore, maintenance of these areas could result in injury or mortality of these species. New PMRP foredune planting activities could deter individuals from foraging or resting causing increased stress or cause them to move from cover

where they are exposed to predation and other threats. The new impact would be minor non-lethal and lethal harm.

- ***Habitat.*** Dust control activities would permanently alter 52 acres of habitat for coast horned lizard and silvery legless lizard in the foredunes through planting of vegetation and placement of dust control devices and monitoring equipment. Ultimately, new vegetation within the foredune areas would result in new cover habitat, which is a beneficial impact. The new habitat impact would be minor with an overall beneficial effect.
- ***Beneficial.*** New dust control activities under CA-44 – New PMRP Foredune Vegetation would establish vegetation within 52 acres of foredune area creating new upland cover habitat. This would be a new beneficial impact.

6) Western Spadefoot Toad

Existing Impact. The impact from existing activities on western spadefoot toad is minor. The No Action Alternative would not change the risk of impact to western spadefoot toad and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities have potential to disturb or capture western spadefoot toad individuals or egg masses. Individuals could be exposed to increased predation or turbidity. Effects are avoided or reduced through implementation of the same AMMs implemented for CRLF (AMMs 1-49; HCP section 5.3). Western spadefoot toad is thought to be very uncommon in the HCP area, and therefore, this species is unlikely to be impacted by covered activities. As a result, the ongoing impact is negligible or minor.
- ***Lethal.*** Existing activities have potential to harm individual western spadefoot toad directly or indirectly. The following impacts could occur: aestivating or dispersing individuals struck by vehicles or equipment and individuals injured, killed, or egg masses damaged. Effects are avoided or reduced through implementation of the same AMMs implemented for CRLF (AMMs 1–49; HCP section 5.3). Western spadefoot toad is thought to be very uncommon in the HCP area, and therefore, this species is unlikely to be impacted by covered activities. As a result, the ongoing impact is negligible or minor.
- ***Habitat.*** Existing activities have the potential to reduce the amount and/or quality of existing suitable habitat for western spadefoot toad due to disturbance. Individuals could be exposed to increased turbidity, reduced water quality, permanent and/or temporary loss of aquatic or upland habitat. The ongoing impact is negligible or minor.
- ***Beneficial.*** Existing activities have the potential to improve habitat quality through reduction of invasive species and improved water quality. The ongoing impact is beneficial.

New Impact. Western spadefoot toad is thought to be very uncommon in the HCP area and is less likely to be impacted by new dust control activities (CA-44 – New PMRP Foredune Vegetation) than CRLF. Dust control activities would establish vegetation within 52 acres of the foredune areas resulting in new upland cover habitat, which is anticipated to be a beneficial impact. Installation of air quality monitoring equipment could impact 3 acres of

upland habitat. As a result, impacts to western spadefoot toad are not expected. The new impact would be ***negligible***.

7) Western Pond Turtle

Existing Impact. The impact from existing activities on WPT is minor. The No Action Alternative would not change the risk of impact to WPT and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities could disturb individuals, deterring them from basking and/or foraging, which could increase stress and/or be exposed to predation. Covered activities could result in capture of WPT. Covered activities could impair water quality. The potential ongoing non-lethal impact to WPT is minor.
- ***Lethal.*** Existing activities could increase trash causing increase in predator populations. Covered activities could injure or kill individuals. The potential ongoing lethal impact to WPT is minor.
- ***Habitat.*** Existing pesticide use may alter the availability of cover and basking sites. Overall, pesticides have a beneficial effect on WPT by preventing encroachment of invasive plants and allowing the establishment of native plants. The ongoing impact to WPT is minor.
- ***Beneficial.*** Existing activities include surveys and management activities that may locate WPT within the HCP area. Listed plant management, invasive pest plant and animal control, and water quality monitoring and improvements in aquatic habitat where individuals may occur reduce invasive species in the area, increase water quality, and provide more suitable habitat. Riparian maintenance activities improve habitat. Pesticide use prevents encroachment of invasive plants allowing the establishment of native plants. The ongoing impact is beneficial.

New Impact. New dust control activity (CA-44 – New PMRP Foredune Vegetation) would not occur in WPT habitat. The result would be ***no*** new impact.

8) Western Burrowing Owl

Existing Impact. The impact from existing activities on western burrowing owl is minor to moderate. The No Action Alternative would not change the risk of impact to western burrowing owl and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities can disturb burrowing owls, interrupt foraging, potentially cause abandonment of burrows/cover locations, cause flushing and exposure to predators and inclement weather. The ongoing impact is minor to moderate.
- ***Lethal.*** Existing activities could strike burrowing owls by vehicles causing injury or mortality. Burrows/winter habitat cover could be crushed or destroyed. Individuals potentially exposed to predation by increased trash associated with recreational activity. The ongoing impact is minor to moderate.

- ***Habitat.*** Existing activities could alter suitable wintering habitat by temporarily changing the microtopography or removing organic material (e.g., woody debris) that wintering owls use for cover. The ongoing habitat impact is minor to moderate.

- **Beneficial.** Habitat monitoring provides useful information on the species distribution and habitat. The ongoing impact is beneficial.

New Impact. New dust control activity (CA-44 – New PMRP Foredune Vegetation) would have potential to disturb western burrowing owl and reduce wintering habitat. The new impact would be ***minor***.

The following new impacts would occur under the No Action Alternative.

- ***Non-Lethal.*** Dust activities could disrupt foraging individuals or displace birds from safe resting locations. Impacts would be temporary and short in duration. CDPR would conduct pre-construction surveys to avoid disturbing wintering burrowing owl. AMMs (e.g., no-disturbance buffer) would be implemented. The resulting impact would be minor.
- ***Lethal.*** No new lethal impacts would occur.
- ***Habitat.*** Planting vegetation within the foredune area could reduce available suitable wintering habitat. However, planted dune vegetation may be used for cover during the winter. Overall, the new habitat impact would be minor.
- ***Beneficial.*** New dust control activities under CA-44 – New PMRP Foredune Vegetation would have no beneficial impact on burrowing owl.

9) Nesting Birds

Nesting birds include common nesting birds as well as special-status species such as least bittern, white-tailed kite, northern harrier, American peregrine falcon, loggerhead shrike, California horned lark, and yellow warbler.

Existing Impact. The impact from existing activities on nesting birds is minor to moderate. The No Action Alternative would not change the risk of impact to nesting birds and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities could disturb ground-nesting birds, interrupt foraging, cause flushing and exposure to predators and inclement weather. Activities could lead to neglect or abandonment of eggs or chicks exposing eggs or chicks to predation and/or inclement weather during the period of disturbance. The ongoing impact is minor to moderate.
- ***Lethal.*** Existing activities could strike a nesting bird causing injury or mortality or cause nest destruction. Adults, chicks, and/or eggs potentially exposed to predation by increased trash associated with recreational activity. The ongoing impact is minor to moderate.
- ***Habitat.*** Invasive plant and animal control can benefit many nesting birds by improving habitat and reducing potential predators or competing species in the HCP area. Planting vegetation associated with existing dust control activities decreases bare ground and reduces suitable nesting habitat for some ground-nesting birds. The ongoing habitat impact on nesting birds is minor.

- **Beneficial.** Invasive plant and animal control improves habitat and reduces potential predators or competing species. The HMS provides additional information on nesting bird species and distribution in the HCP area. Pesticide use in the HCP area reduces the spread of invasive plant species into breeding habitat. The ongoing impact is beneficial.

New Impact. New dust control activities (CA-44 – New PMRP Foredune Vegetation) would not impact aquatic or riparian nesting birds, since these activities would not occur in aquatic or riparian habitat. If activities occur in the avian nesting season (generally March 1 to September 15), CDPR would conduct pre-construction surveys for nesting birds and establish protective buffer zones if found. The new impact on nesting birds would be ***minor***.

The following new impacts would occur under the No Action Alternative.

- ***Non-Lethal.*** Existing activities could disturb ground-nesting birds, interrupt foraging, cause flushing and exposure to predators and inclement weather. Activities could lead to neglect or abandonment of eggs or chicks exposing eggs or chicks to predation and/or inclement weather during the period of disturbance. The new impact would be minor.
- ***Lethal.*** New activities could cause nest destruction. The new impact would be minor.
- ***Habitat.*** Planting vegetation on 52 acres of foredune area would decrease bare ground and could also reduce suitable nesting habitat for ground-nesting birds. The new habitat impact on nesting birds would be minor.
- **Beneficial.** There would be no beneficial effects of CA-44 – New PMRP Foredune Vegetation to nesting birds.

10) Bats

Existing Impacts. Existing park operations can impact roosting and/or foraging bats. Most impacts, if any, occur near wooded or aquatic areas. The ongoing impact on bats is minor to moderate. The No Action Alternative would not change the risk of impact to bats and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Recreation and maintenance activities can temporarily displace foraging bats, altering their normal behavior patterns and/or flush foraging and/or roosting bats from optimal habitat to less suitable habitat. Recreation and maintenance activities could result in roost abandonment. Noise and light associated with overnight camping can deter them from normal foraging and/or mating behavior or disrupt normal circadian/hibernation cycles. The ongoing impacts are minor to moderate.
- ***Lethal.*** Maintenance activities associated with the removal of trees can kill or injure bats. CDPR conducts pre-construction surveys for bat roosts prior to tree removal and utilizes AMMs such as delayed work or use of buffers. The risk of impact is low, and the ongoing impact is minor***.***
- ***Habitat.*** Existing activities have no impact on bat habitat.
- ***Beneficial.*** Although some activities have indirect beneficial impacts on foraging and roosting bats, including invasive plant and animal control, by improving the quality of foraging and roosting habitat, these beneficial impacts are considered negligible.

New Impact. New dust control activity (CA-44 – New PMRP Foredune Vegetation) would not occur in bat habitat. The result would be ***no*** new impact.

11) American Badger

Existing Impact. Very little is known about American badger in the HCP area and it has only infrequently been observed. Impacts to American badger from existing activities within the HCP area are unlikely, and the ongoing impact is minor. The No Action Alternative would not change the risk of impact to western burrowing owl and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities have the potential to disturb American badger if present in activity areas. Activities could result in den abandonment if located within the dune vegetation or vegetation islands where activity occurs. The ongoing impact is minor.
- ***Lethal.*** There are no existing activities having lethal impact to American badger.
- ***Habitat.*** Dust control measures such as installing wind fencing could reduce American badger habitat. This is an ongoing minor impact. Planting vegetation creates new cover habitat, which is an ongoing beneficial impact.
- ***Beneficial.*** Habitat monitoring provides useful information on the species distribution and habitat. Planting vegetation increases habitat for American badger. Pesticide use improves habitat for American badger in the HCP area. The result is a beneficial impact.

New Impact. New impacts to American badger from CA-44 – New PMRP Foredune Vegetation are unlikely because this species is uncommon. New impacts would be ***minor***.

The following new impacts would occur under the No Action Alternative.

- ***Non-Lethal.*** Dust control activities have the potential to disturb American badger if present within or near the work area and could result in den abandonment and relocation. The impact would be minor.
- ***Lethal.*** Dust control activities could crush an American badger den. CDPR would conduct pre-construction surveys as necessary to identify presence and implement avoidance measures. No lethal impact would be anticipated.
- ***Habitat.*** Planting vegetation on 52 acres of foredune area would increases the amount of suitable vegetated dune habitat would result in a beneficial impact.
- ***Beneficial.*** Planting vegetation associated with dust control activities within the HCP area would most likely have a beneficial impact on American badger by increasing the amount of suitable vegetated dune habitat in the HCP area.

4.2.2.2 Wildlife Movement and Nursery Sites

Existing Impact. The impact from existing activities on wildlife movement and nursery sites is minor. The No Action Alternative would not change the risk of impact and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Impeding Movement.*** Existing activities could deter wildlife, including small and large mammals, birds, reptiles, and amphibians from moving through open areas; however, no barriers or permanent impediments to wildlife movement occur. The effects are temporary and are not be substantial or cause the population decline of any wildlife species in the HCP area. The ongoing impact on wildlife movement is minor.
- ***Nursery Sites.*** Existing activities can occur within areas used by species, including SNPL, CLTE, and CRLF, for breeding, nesting, and/or rearing young; however, AMMs are implemented to ensure that breeding, nesting, and rearing young are not substantially impacted. In addition, many activities are temporary and short in duration. As a result, existing activities do not impede or substantially impact a potential nursery site. The ongoing impact on nursery sites is minor.
- ***Beneficial.*** The natural resources program is expected to help mitigate the potential impacts to breeding and rearing young and to wildlife movement from visitor activities by monitoring and protecting HCP covered animal species, plant propagation and vegetation planting, restoring and enhancing wildlife habitat, controlling invasive species, monitoring wildlife populations in the HCP area, and monitoring water quality. The ongoing impact of these activities is beneficial.

New Impact. New dust control activities from CA-44 – New PMRP Foredune Vegetation would occur within some areas used by SNPL and CLTE for nesting and chick rearing. However, as described under Special-Status Animal Species, AMMs would be implemented to ensure that SNPL and CLTE nesting and chick rearing are not substantially impacted. As a result, any impacts to eggs or young are minor and would not impede the use of the HCP area for nesting and raising young. 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 and temporary monitoring equipment would not represent a substantial barrier to wildlife migration or movement. The impact to wildlife movement and corridors would be ***minor***.

4.2.2.3 Wintering/Migratory Birds

Impacts to wintering and/or migratory birds, including special-status species, with some exceptions such as the western burrowing owl, do not require permits or authorizations during the non-breeding season timeframe to ensure that impacts are less than significant. Impacts to wintering/migratory birds from existing activities are described in EA Appendix D and are also briefly presented below.

Existing Impact. Most wintering/migratory birds fly out of harm's way when approached; however foraging and roosting birds can be impacted. The existing impact is negligible to moderate. The No Action Alternative would not change the risk of impact and the existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Non-Lethal.*** Existing activities have been observed temporarily displacing foraging or wintering birds, altering their normal behavior patterns, and flushing wintering or foraging birds from optimal habitat to less suitable habitat. Most disturbances are temporary and short in duration and/or birds fly to other areas to forage/roost and avoid disturbance. The ongoing impact is considered negligible.

- ***Lethal.*** Existing activity includes vehicle operations which could injure or kill a foraging or roosting wintering/migratory bird. The ongoing impact is moderate.
- ***Habitat.*** There are no existing activities having habitat impact to wintering/migratory birds.
- ***Beneficial.*** There are no existing activities having direct or significant beneficial impacts on wintering/migratory birds.

New Impact. New impacts to wintering/migratory birds from CA-44 – New PMRP Foredune Vegetation activities would be ***minor***.

The following new impacts would occur under the No Action Alternative.

- ***Non-Lethal.*** Dust control activities could temporarily displace foraging or wintering birds, altering their normal behavior patterns. This non-lethal impact would be minor.
- ***Lethal.*** Dust control activities could also 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, most dust control activities would be localized and short in duration. As a result, lethal impacts would be minor. Planting 52 acres of foredune vegetation restricts vehicles in the open riding area and may exacerbate vehicle strike of foraging and roosting birds including winter flocks along the shoreline. The new impact would be minor.
- ***Habitat.*** There would be no habitat impacts to wintering/migratory birds from CA-44 New PMRP Foredune Vegetation activities.
- ***Beneficial.*** There would be no impacts to wintering/migratory birds from CA-44 New PMRP Foredune Vegetation activities.

4.2.3 Alternative 2: Proposed Action (Proposed HCP)

Under the Proposed Action Alternative (section 2.2), existing and new park operations would receive ITP authorization for take impacts to covered species (Table 2-2). As described in section 2.2, existing park operations are part of the environmental setting. Environmental effects from ongoing existing covered activities are part of the baseline environmental conditions and would continue to occur as described in the No Action Alternative. The assessment of the Proposed Action Alternative is limited to environmental changes caused by issuance of the ITP, identifying no new impacts from existing activities and describing additional impacts from new covered activities. The HCP does not propose changes to existing activities; therefore, the continuance of these activities under ITP authorization would not introduce change from baseline environmental conditions and would not create new impact. The impacts of existing activities are fully described in EIR Appendix D and EA Appendix D and included in the No Action Alternative. Ongoing impacts are not addressed as part of the impact analysis of the Proposed Action Alternative but, the impacts to fish and wildlife from new covered activities are fully described in HCP Chapter 4 and EA Appendix D and briefly summarized below.

4.2.3.1 Special-Status Species

1) Western Snowy Plover

No or Negligible Impact. Covered new activities occurring outside of SNPL primary and secondary habitat areas, including critical habitat, and those activities that avoid impacts

through implementation of AMMs as shown in Table 2-2 would have ***no or negligible*** impact on SNPL. *(CA-42; CA-48).*

Take Impact. Assessment of SNPL take from new covered activities is described in EIR section 6.3.2.1 and section 6.4.1.1. This information is incorporated by reference and briefly summarized below. SNPL take in the form of capture, mortality, or injury would be subject to the proposed permit limits identified in Table 2-3.

These take limits address take from both existing and new covered activities. All AMMs identified in the HCP apply to existing and new activities as appropriate. CDPR would add new SNPL AMMs 22, 46, 104–109, 114, and 123–140 to further address impacts of existing and new covered activities. As described in EIR sections 6.3.2.1 and 6.4.1.1, CA-12b – Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreational Activity and Other Non-Covered Species Management Activities would result in additional take (capture), and CA-50 and CA-44 could create an increased risk of mortality or injury of SNPL chicks and eggs above baseline conditions. It is assumed the three activities combined could contribute to increased take in the form of capture, injury, or mortality of 12 eggs and 12 chicks above baseline conditions.

Given the overall size of the SNPL breeding population in the HCP area and the successful fledge rate, the proposed permitted take level would not substantially increase the risk of injury/mortality impacts to SNPL from current conditions or allow substantially elevated incidents of take. As a result, the take impact of the proposed take permit limit on the SNPL population residing in the HCP area would be ***minor to moderate***.

- ***Non-Lethal.*** New covered activities have potential to disturb SNPL causing flushing; interruption of nesting, foraging, or roosting; nest abandonment; physiological stress; or reproductive failure. This includes capture of up to 35 adults and/or juveniles annually for banding activities. New activities may also result in capturing chicks/eggs at high risk of being injured or killed by existing activities for relocation to captive rearing. Removing the East Boneyard Exclosure could increase the exposure of nesting SNPL in West Boneyard and South Oso Flaco to disturbance from motorized and non-motorized recreation. Effects are reduced through implementation of SNPL AMMs 1–140 as appropriate (HCP section 5.3). The resulting impact would be minor to moderate. *(CA-12b – SNPL Chick and Egg Capture for Captive Rearing if Observed Threatened by Recreational Activity and Other Non-Covered Species Management Activities; CA-12b – SNPL Adult Banding; CA-41; CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50; CA-52).*
- ***Lethal.*** Covered activities have potential to directly or indirectly harm, injure, or kill individual SNPL. Mechanical trash removal would not be conducted near known SNPL nesting areas. Mechanical trash removal could remove wrack-associated invertebrates that are important SNPL prey resources. This could result in a minor level of lethal take by impairing foraging opportunities and quality of habitat. Injury and mortality impacts to SNPL from recreation activity newly occurring with the proposed reduction of the East Boneyard Exclosure or 6 Exclosure during the breeding season would be similar to impacts presently occurring in adjacent areas as described under the No Action Alternative. Removing the East Boneyard Exclosure and use of this area for year-round recreation is unlikely to result in injury or mortality of SNPL beyond what is described for CA-1 in EA Appendix D. Reduction of the 6 Exclosure could increase exposure of nesting, foraging, and/or

roosting SNPL to injury or mortality from motorized recreation and other activities; however the reduction of the 6 Exclosure would occur incrementally and only if biological success criteria are met and maintained for both SNPL and CLTE. Effects are avoided or reduced through implementation of SNPL AMMs 1–140 as appropriate (HCP section 5.3). The resulting impact would be minor to moderate. *(CA-12b – SNPL Chick and Egg Capture for Captive Rearing if Observed Threatened by Recreational Activity and Other Non-Covered Species Management Activities; CA-21 – Mechanical Trash Removal; CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50).*

- ***Habitat.*** Covered activities have the potential to reduce the amount and/or quality of existing suitable nesting or wintering habitat for SNPL. Mechanical trash removal could reduce microtopography and organic surface materials (e.g., driftwood) that are scattered throughout the HCP area above the wrack line. Establishing foredune vegetation for dust control would reduce the quality of up to 52 acres of primary SNPL breeding habitat, all of which is designated critical habitat. Special projects would reduce the amount of SNPL habitat available; however, special projects would be small, not exceed 35 acres over the 25-year permit term and be placed outside of typical SNPL nesting areas. Reduction of the Boneyard Exclosure and Post 6 Exclosure would extend recreational use from seasonal (5 months per year) to year-round on up to 109 acres of currently protected nesting habitat, of which 60 acres are designated critical habitat. Critical habitat would not be substantially changed by recreation activities. Removing the East Boneyard Exclosure would eliminate 49 acres of unproductive breeding habitat from protection. This area includes 0.28 acre of SNPL critical habitat. This would be a minor loss in habitat and have a minor impact on SNPL breeding. Reduction of the 6 Exclosure would incrementally eliminate up to 60 acres of productive protected breeding habitat and would have a moderate impact on SNPL breeding. The resulting habitat impact would be moderate. Impacts of CA-50 are fully described in EA Appendix D *(CA-21 – Mechanical Trash Removal; CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50).*

Beneficial Impact. Covered activities have the potential to benefit SNPL by increasing chance of survival through rescue and transfer to captive rearing. Data collection would provide beneficial information on adult mortality/survival, population status and distribution, habitat, predators, and breeding that would inform management decisions further benefiting habitat and species conservation. The resulting impact would be beneficial. *(CA-12b – SNPL Chick and Egg Capture for Captive Rearing if Observed Threatened by Recreational Activity and Other Non-Covered Species Management Activities; CA-12b – SNPL Adult Banding; CA-52).*

2) California Least Tern

No or Negligible Impact. Covered activities occurring outside of CLTE primary and secondary habitat areas and those activities that avoid impacts through implementation of AMMs as shown in Table 2-2 and discussed in EA Appendix D would have ***no or negligible*** impact on CLTE. *(CA-21 – Mechanical Trash Removal).*

Take Impact. Assessment of CLTE take from new covered activities is described in EIR section 6.3.2.2 and section 6.4.1.2. This information is incorporated by reference and briefly

summarized below. CLTE take in the form of capture, mortality, or injury would be subject to the proposed permit limits identified in Table 2-3.

These take limits address take from both existing and new covered activities. All AMMs identified in the HCP apply to existing and new activities as appropriate. CDPR would implement new CLTE AMMs 37, 91-95, 101-103, and 112–125 to further address impacts of existing and new covered activities.

The proposed permitted take level would not substantially increase the risk of injury/mortality impacts to CLTE or allow substantially elevated incidents of take. As a result, the impact of the proposed take permit limit on the CLTE population residing in the HCP area would be ***minor to moderate***.

- ***Non-Lethal.*** Covered activities have potential to disturb CLTE, causing flushing; interruption of nesting, foraging, or roosting; nest abandonment; physiological stress; or reproductive failure. Roosting and foraging disturbance could occur from installation, use, or removal of the Pismo Creek seasonal bridge or from the Oso Flaco boardwalk replacement, which could result in fledglings becoming energetically stressed when they are unable to forage normally. Breeding, foraging, and roosting disturbance to CLTE could occur from special projects pursued by CDPR, resulting in nest abandonment or physiological stress. Elimination of the East Boneyard Exclosure would have no direct impact on nesting or roosting CLTE. Removing the East Boneyard Exclosure could increase the exposure of nesting CLTE in West Boneyard and South Oso Flaco to disturbance from motorized and non-motorized recreation. Reduction of the 6 Exclosure could expose nesting, foraging, and/or roosting CLTE to disturbance from motorized recreation and other activities; however, the reduction of the 6 Exclosure would occur incrementally and only if biological success criteria are met and maintained for both SNPL and CLTE. Effects would be avoided or reduced through implementation of CLTE AMMs 1–125 as appropriate (HCP section 5.3). The resulting impact would be minor to moderate. *(CA-12b – SNPL Chick and Egg Capture for Captive Rearing if Observed Threatened by Recreational Activity and Other Non-Covered Species Management Activities; CA-12b – SNPL Adult Banding; CA-41; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49; CA-50; CA-52).*
- ***Lethal.*** Covered activities have potential to directly or indirectly harm, injure, or kill individual CLTE. CLTE have been observed flying low over the 40 Acres riding area could be struck by a vehicle traveling through this area. Fencing of the new foredune exclosures for dust control could result in CLTE nesting in the area creating new risk for lethal impacts from fence strike. Injury and mortality impacts to CLTE from recreation activity newly occurring in the East Boneyard Exclosure or 6 Exclosure during breeding season months would be similar to impacts presently occurring as described under the No Action Alternative. Elimination of the East Boneyard Exclosure would have no injury/mortality impact on CLTE since none are expected to occur in this area. Reduction of the 6 Exclosure could expose CLTE to moderate lethal impacts. Effects would be avoided or reduced through implementation of CLTE AMMs 1-125 as appropriate (HCP section 5.3). The resulting impact would be minor to moderate. *(CA-42; CA-44 – New PMRP Foredune Vegetation; CA-50).*
- ***Habitat.*** Covered activities have the potential to reduce the amount and/or quality of existing suitable habitat for CLTE due to the high level of disturbance. Special

projects would reduce the amount of CLTE habitat available; however, special projects would be small (i.e., not exceed 35 acres over the 25-year permit term) and placed outside of typical CLTE nesting areas. Elimination of East Boneyard Exclosure would result in the permanent loss of 49 acres of protected breeding habitat. East Boneyard Exclosure is a low production nesting area and removal of this area from protective habitat would have a negligible impact on CLTE breeding. The incremental reduction of the 6 Exclosure would remove up to 60 acres of productive protected breeding habitat and could have a moderate impact on CLTE breeding. The elimination of 6 Exclosure could cause a loss of CLTE night roost habitat. The night roost impact would be moderate. The resulting impact would be minor to moderate*. (CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50).*

Beneficial Impact. Data collection through monitoring would inform management decisions further benefiting habitat and species conservation. The resulting impact would be beneficial. *(CA-52).*

3) California Red-legged Frog

No or Negligible Impact. Covered activities occurring outside of CRLF aquatic and upland habitat areas and those activities that avoid impacts through implementation of AMMs as shown in Table 2-2 and discussed in EA Appendix D would have ***no or negligible*** impact on CRLF. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-42; CA-50; CA-52).*

Take Impact. Assessment of CRLF take from existing and proposed new covered activities is described in EIR section 6.3.2.3 and section 6.4.1.3. This information is incorporated by reference and briefly summarized below. There have been no recorded instances of CRLF take from covered activities within the HCP area. CDPR implements CRLF AMMs 1-49 as appropriate to avoid and minimize take of CRLF from existing and new covered activities. CRLF take in the form of capture, mortality, or injury would be subject to the proposed permit limits identified in Table 2-3.

These estimates recognize that not every egg or individual CRLF may be detected. Take estimates are based on take that is likely to occur from existing activities and no additional take is anticipated from new covered activities due to the low potential for CRLF to be present in the area when these activities occur. As a result, the proposed permitted take level would not substantially increase the risk of injury/mortality impacts to CRLF or allow substantially elevated incidents of take above existing levels. As a result, the impact of the proposed take permit limit on the CRLF population residing in the HCP area would be ***minor***.

- ***Non-Lethal.*** Covered activities have potential to disturb CRLF individuals or egg masses. Covered activities have the potential to expose individuals to increased turbidity. Effects would be avoided or reduced through implementation of CRLF AMMs 1–49 (HCP section 5.3). The resulting impact would be minor. *(CA-48).*
- ***Lethal.*** Replacing the boardwalk could injure or kill individual CRLF if they are present within the work area. Special projects could injure or kill dispersing adults, sub-adults, and/or juveniles if they dispersed through the construction area.

However, pre-construction surveys would be conducted prior to commencing activities, as necessary. The resulting impact would be minor. *(CA-48, CA-49).*

- ***Habitat.*** The HCP estimates up to 1.5 acres of permanent aquatic habitat loss for replacement of the Oso Flaco Boardwalk and 38 acres of permanent upland habitat loss associated with special projects (35 acres) and air monitoring equipment for dust control activities (3 acres). Dust control activities would establish vegetation within 52 acres of foredune habitat resulting in new upland cover habitat, which is a beneficial impact and is; therefore, included under beneficial impact below. The resulting impact would be minor. *(CA-48, CA-49).*

Beneficial Impact. Covered activities have the potential to improve habitat quality through reduction of invasive species and improved water quality. Dust control activities would establish vegetation within foredune areas resulting in new upland cover habitat, which is a beneficial impact. *(CA-44 – New PMRP Foredune Vegetation).*

4) Tidewater Goby

No or Negligible Impact. Covered activities occurring outside of tidewater goby aquatic habitat areas, including critical habitat (HCP Map 15), and those activities that avoid impacts through implementation of AMMs as shown in Table 2-2and discussed in EA Appendix D would have ***no or negligible*** impact on tidewater goby. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-42, CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49; CA-50; CA-52).*

Take Impact. Assessment of tidewater goby take from existing and proposed new covered activities is described in EIR section 6.3.2.4 and section 6.4.1.4. This information is incorporated by reference and briefly summarized below. Other than two individuals that were harmed during fisheries surveys, there have been no recorded instances of tidewater goby take, although take could be difficult to document and may be unknowingly occurring. CDPR implements Tidewater Goby AMMs 1-55 as appropriate to avoid and minimize take of tidewater goby from existing and new covered activities. Tidewater goby take in the form of capture, mortality, or injury would be subject to the proposed permit limits identified in Table 2-3.

These estimates recognize that not every individual may be detected. Take estimates are based on take that is likely to occur from existing activities, and no additional take is anticipated from proposed new activities. As a result, the proposed permitted take level would not substantially increase the risk of injury/mortality impacts to tidewater goby or allow substantially elevated incidents of take above existing levels. As a result, the impact of the proposed take permit limit on the tidewater goby population residing in the HCP area would be ***minor.***

- ***Non-Lethal.*** Covered activities have potential to disturb tidewater goby by disturbance of habitat or egg burrows, exposure from contact with contaminated prey or vegetation, exposure from contact with residues or inhalation of vapors, exposure to decreased water quality or increased turbidity, and capture. Effects are avoided or reduced through implementation of tidewater goby AMMs 1–55 (HCP section 5.3). The resulting impact would be minor to moderate. *(CA-41).*

- ***Lethal.*** There would be no new covered activities having lethal impact to tidewater goby under the Proposed Action Alternative.
- ***Habitat.*** There would be no new covered activities having impact to tidewater goby habitat under the Proposed Action Alternative.

Beneficial Impact. Covered activity would have a beneficial effect on tidewater goby and habitat by reducing the temporary effects from turbidity and the potential for tidewater goby individuals to be injured or killed by pedestrians walking through the mouth of the creek. *(CA-41).*

5) California (Coast) Horned Lizard and Silvery Legless Lizard

No or Negligible Impact. Covered activities occurring outside of coast horned lizard and silvery legless lizard habitat areas or that avoid impacts through CDPR standard practices would have ***no or negligible*** impact on coast horned lizard and silvery legless lizard. *(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-12b – SNPL Adult Banding; CA-41; CA-48; CA-52).*

Non-Lethal Impact. Covered activities have potential to disturb coast horned lizard and silvery legless lizard, potentially causing increased stress and/or causing them to move from cover where they are exposed to predation or other threats. Individuals could be deterred from foraging or resting. The impact to coast horned lizard and silvery legless lizard would be ***minor***. *(CA-42; CA-44 – New PMRP Foredune Vegetation; CA-49).*

Lethal Impact. Covered activities have potential to injure or kill coast horned lizard and silvery legless lizard. The resulting impact would be ***minor.*** *(CA-21 – Mechanical Trash Removal, CA-42, CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50).*

Habitat Impact. Up to 4.8 acres of suitable coastal dune habitat for coast horned lizard and silvery legless lizard could be removed to create a new trail alignment. The HCP area contains 1,079 acres of suitable dune habitat; therefore, the impact of habitat loss is minor. Dust control activities would establish vegetation within the foredune areas resulting in new cover habitat, which is a beneficial impact and thus included under beneficial impact below. The resulting impact would be ***minor***. *(CA-42, CA-44 – New PMRP Foredune Vegetation).*

Beneficial Impact. Dust control activities would establish vegetation within foredune areas resulting in new cover habitat, which would be a beneficial impact. *(CA-44 – New PMRP Foredune Vegetation).*

6) Western Spadefoot Toad

No or Negligible Impact. Covered activities occurring outside of western spadefoot toad habitat areas or that avoid impacts through CDPR standard practices would have ***no or negligible*** impact on western spadefoot toad. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-42; CA-49; CA-50; CA-52).*

Lethal Impact. Replacing the boardwalk could injure or kill individual western spadefoot toad if they are present within the work area. Special projects could injure or kill dispersing individuals if they dispersed through the construction area. However, pre-construction surveys would be conducted prior to commencing activities, as necessary. The resulting impact would be ***minor***. *(CA-48, CA-49)*.

Lethal Impact. There would be no new covered activities having lethal impact to western spadefoot toad under the Proposed Action Alternative.

Habitat Impact. Covered activities have the potential to reduce the amount and/or quality of existing suitable habitat for western spadefoot toad due to disturbance. Individuals could be exposed to increased turbidity, reduced water quality, permanent and/or temporary loss of breeding or upland habitat. The HCP estimates up to 38 acres of permanent upland habitat loss associated with air monitoring equipment for dust control activities (3 acres) and special projects (35 acres). The resulting impact would be ***minor.*** *(CA-48, CA-49).*

Beneficial Impact. There would be no new activities with beneficial impact to western spadefoot toad under the Proposed Action Alternative.

7) Western Pond Turtle

No or Negligible Impact. Covered activities occurring outside of WPT habitat areas or that avoid impacts through CDPR standard practices would have ***no or negligible*** impact on WPT. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50; CA-52).*

Non-Lethal Impact. Covered activities could disturb individuals, deterring them from basking and/or foraging, which could increase stress and/or be exposed to predation. The resulting impact would be ***minor***. *(CA-48).*

Lethal Impact. There would be no new covered activities having lethal impact to WPT under the Proposed Action Alternative.

Habitat Impact. Oso Flaco bridge replacement may remove 1.5 acres of aquatic habitat. The resulting impact to WPT would be ***minor***. *(CA-48).*

Beneficial Impact. There would be no new covered activities having beneficial impact to WPT under the Proposed Action Alternative.

8) Western Burrowing Owl

No or Negligible Impact. Covered activities occurring outside of suitable western burrowing owl habitat areas or that avoid impacts through CDPR standard practices would have ***no or negligible*** impact to western burrowing owl. *(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-12b SNPL Adult Banding; CA-41; CA-48; CA-50).*

Non-Lethal Impact. Covered activities can disturb burrowing owls, interrupt foraging, potentially cause abandonment of burrows/cover locations, cause flushing and exposure to predators and inclement weather. The resulting impact would be ***minor***. *(CA-21 – Mechanical Trash Removal; CA-42, CA-44 – New PMRP Foredune Vegetation; CA-49; CA-52).*

Lethal Impact. Covered activities could strike burrowing owls by vehicles causing injury or mortality. Burrows/winter habitat cover could be crushed or destroyed. The resulting impact would be ***minor***. *(CA-21 – Mechanical Trash Removal).*

Habitat Impact. Covered activities could alter suitable wintering habitat by temporarily changing the microtopography or removing organic material (e.g., woody debris) that

wintering owls use for cover. Vegetation plantings could reduce available suitable wintering habitat, including reducing areas with woody debris or reducing open areas with suitable small mammal burrows; however, dune vegetation could increase the amount of cover during the winter. Activities could alter suitable wintering habitat by changing the microtopography or removing organic material (e.g., woody debris). Overall, the resulting habitat impact would be ***minor.*** *(CA-21 – Mechanical Trash Removal; CA-44 – New PMRP Foredune Vegetation; CA-49).*

Beneficial Impact. There would be no new covered activities having beneficial impact to western burrowing owl under the Proposed Action Alternative.

9) Nesting Birds

No or Negligible Impact. There would be no new covered activities with no or negligible impact to nesting birds under the Proposed Action Alternative. See EA Appendix D for a description of impacts to specific species of birds.

Non-Lethal Impact. Covered activities could disturb nesting birds, interrupt foraging, cause flushing and exposure to predators and inclement weather. Overall, the resulting non-lethal impact would be ***minor to moderate***. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49; CA-50; CA-52).*

Lethal Impact. Covered activities could strike a ground-nesting bird causing injury or mortality. Covered activities could cause nest destruction. These activities could result in ***minor to moderate*** impact on nesting birds. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49; CA-50).*

Habitat Impact. Mechanical trash removal could reduce organic surface materials (e.g., driftwood) and microtopography reducing favorable nesting habitat for some ground-nesting birds. Planting vegetation would decrease bare ground and could also reduce suitable nesting habitat for ground-nesting birds. The resulting impact would be ***minor***. *(CA-21 – Mechanical Trash Removal; CA-44 – New PMRP Foredune Vegetation).*

Beneficial Impact. UAS would likely have beneficial impacts by collecting valuable information on habitat, nest locations (e.g., raptor nests), and predators within the HCP area. *(CA-52).*

10) Bats

No or Negligible Impact. Covered activities occurring during daylight hours and not at night when bats are most active and are out in the open, are unlikely to disturb foraging or wintering bats. Disturbances are typically temporary and short in duration. Activities can occur near wooded or aquatic areas disturbing roosting and/or foraging bats. The activities would not result in injury or mortality resulting in ***no or negligible*** impacts to bats. *(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-12b –*

SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49; CA-50; CA-52).

Non-Lethal, Lethal, and Habitat Impact. There would be no new covered activities having non-lethal, lethal, and habitat impact on bats under the Proposed Action Alternative.

Beneficial Impact. There would be no new covered activities having beneficial impact on bats under the Proposed Action Alternative.

11) American Badger

No or Negligible Impact. Covered activities occurring outside of American badger habitat or that avoid impacts through CDPR standard practices would have ***no or negligible*** impact to American badger. *(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-12b – SNPL Adult Banding; CA-41; CA-42; CA-48; CA-50).*

Non-Lethal Impact. Covered activities have the potential to disturb American badger if present in activity areas. Activities could result in den abandonment if located within the dune vegetation or vegetation islands where activity occurs. All impacts would be ***minor***. *(CA-44 – New PMRP Foredune Vegetation; CA-49; CA-52).*

Lethal and Habitat Impact. There would be no new covered activities having lethal impact or adverse habitat impact on American badger under the Proposed Action Alternative.

Beneficial Impact. Planting vegetation associated with dust control activities within the HCP area would most likely have a beneficial impact on American badger by increasing the amount of suitable vegetated dune habitat in the HCP area. *(CA-44 – New PMRP Foredune Vegetation).*

4.2.3.2 Wildlife Movement and Nursery Sites

The EA Appendix D describes the impacts of covered activities on wildlife movement and nursery sites. This information is summarized below.

No or Negligible Impact. There would be no new covered activities having a no or negligible impact on wildlife movement and nursery sites.

Wildlife Movement Impact. Covered activities could deter wildlife, including small and large mammals, birds, reptiles, and amphibians from moving through open areas; however, no barriers or impediments to wildlife movement would occur. The effects would be temporary and would not be substantial or cause the population decline of any wildlife species in the HCP area. As a result, the impact of these activities on wildlife movement would be ***minor***. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-42; CA-48; CA-49; CA-50; CA-52).*

Nursery Site Impact. Covered activities can occur within areas used by species for breeding, nesting, and/or rearing young (e.g., shorebirds SNPL, CLTE, and CRLF); however, impacts would be temporary and relatively short-in duration and would not impede the use of the area for breeding, nesting, and rearing young and/or AMMs would be implemented to ensure that breeding, nesting, and rearing young would not be substantially impacted. As a result, covered activities would not impede or substantially impact a potential nursery site. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49; CA-50).

Beneficial Impact. There would be no new covered activities having beneficial impact on wildlife movement and nursery sites.

4.2.3.3 Wintering/Migratory Birds

Impacts to wintering/migratory birds, including special-status species, with some exceptions such as the western burrowing owl, do not require permits or authorizations during the non-breeding season timeframe to ensure that impacts are less than significant. Impacts to wintering/migratory birds from HCP covered activities are described in EA Appendix D. The impacts of the ITP covered activities on wintering/migratory birds are also briefly presented below.

No or Negligible Impact. Covered activities may temporarily displace foraging or wintering birds, altering their normal behavior patterns. Covered activities may flush wintering or foraging birds from optimal habitat to less suitable habitat. Most disturbances are temporary and short in duration and/or birds fly to other areas to forage/roost and avoid disturbance. They would not result in mortality or injury and would have ***no or negligible*** impact. *(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-12b – SNPL Adult Banding; CA-41, CA-42, CA-48, CA-49, CA-52).*

Non-Lethal Impact. All non-lethal impacts would be negligible. There would be no non-lethal impacts on wintering/migratory birds from new covered activities.

Lethal Impact. Covered activities include vehicle operations which could injure or kill a foraging or roosting wintering/migratory bird. Planting 52 acres of foredune vegetation restricts vehicles in the open riding area and may exacerbate vehicle strike of foraging and roosting birds including winter flocks along the shoreline. The resulting impact would be ***minor***. *(CA-21 – Mechanical Trash Removal; CA-44 – New PMRP Foredune Vegetation; CA-50).*

Habitat Impact. Covered activity could affect favorable foraging and/or roosting habitat for wintering/migratory birds by altering dune composition and topography. The resulting impact would be ***minor.*** *(CA-21 – Mechanical Trash Removal).*

Beneficial Impact. There would be no new covered activities having beneficial impact on wintering/migratory birds.

4.2.4 Alternative 3: Maintain Southern Exclosure

Under the Maintain Southern Exclosure Alternative, impacts on fish and wildlife from ongoing existing activities would continue to occur the same as described in the No Action Alternative. The impacts on fish and wildlife from new activities would occur as described for the Proposed Action Alternative (section 4.2.3) with the exception of additional impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50); the impacts of CA-50 would be avoided under this alternative. Impacts of CA-50 are fully described in EA Appendix D and the avoidance of these impacts is briefly included below.

4.2.4.1 Special-Status Species

1) Western Snowy Plover

No or Negligible Impact. No or negligible impact to SNPL under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal and Lethal Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Non-lethal impacts from CA-50 in the Proposed Action Alternative would not occur including the increased exposure of nesting SNPL in West Boneyard and South Oso Flaco to disturbance from motorized and non-motorized recreation and exposure of nesting, foraging, and/or roosting SNPL to disturbance from motorized recreation and other activities.

Lethal impacts from CA-50 in the Proposed Action Alternative would not occur including exposure of nesting, foraging, and/or roosting SNPL to injury or mortality from motorized recreation and other activities and an estimated take of up to 4 eggs and 4 chicks as described in EA Appendix D. The non-lethal and lethal impact to SNPL under Maintain Southern Exclosure Alternative would be ***minor to moderate*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Habitat impacts from CA-50 in the Proposed Action Alternative would not occur including loss of 49 acres of unproductive breeding habitat including 0.28 acres of critical SNPL habitat from protection at East Boneyard and loss of up to 60 acres of productive protected breeding habitat at 6 Exclosure. The SNPL habitat impact under the Maintain Southern Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to SNPL under the Maintain Southern Exclosure Alternative would occur as described under the No Action (section 4.2.2.1) and the Proposed Action Alternative (section 4.2.3.1), including but not limited to increasing reproductive success and survival by improving habitat quality, protecting nesting areas, reducing predator threats, rescuing eggs and chicks, and data collection.

2) California Least Tern

No or Negligible Impact. No or negligible impact to CLTE under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal and Lethal Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Non-lethal impacts from CA-50 in the Proposed Action Alternative would not occur including disturbance of CLTE nesting in West Boneyard and exposure of nesting, foraging, and/or roosting CLTE in the 6 Exclosure area from motorized recreation and other activities. Lethal impacts from CA-50 in the Proposed Action Alternative would not occur including exposure of CLTE to injury and mortality from motorized recreation and other activities. The non-lethal and lethal impact to

CLTE under the Maintain Southern Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Habitat impacts from CA-50 in the Proposed Action Alternative would not occur including loss of 49 acres of protected breeding habitat at East Boneyard Exclosure, loss of up to 60 acres of productive protected breeding habitat at 6 Exclosure, and possible loss of CLTE night roost habitat at 6 Exclosure. The impact to CLTE habitat under the Maintain Southern Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to CLTE under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

3) California (Coast) Horned Lizard and Silvery Legless Lizard

No or Negligible Impact. No or negligible impact to coast horned lizard and silvery legless lizard under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal and Lethal Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Impacts from CA-50 in the Proposed Action Alternative would not occur including disturbance causing movement from protective cover and injury and mortality to lizards dispersing through the East Boneyard and 6 exclosures from recreation activities. The non-lethal and lethal impact to coast horned lizard and silvery legless lizard under the Maintain Southern Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. No coast horned lizard and silvery legless lizard habitat impacts would occur from CA-50 in the Proposed Action Alternative. As such, elimination of CA-50 under the Maintain Southern Exclosure Alternative would not change habitat impacts. The habitat impact to coast horned lizard and silvery legless lizard habitat under the Maintain Southern Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to coast horned lizard and silvery legless lizard under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

4) Nesting Birds

No or Negligible Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. The East Boneyard Exclosure and 6 Exclosure does not contain suitable nesting habitat for most potential nesting birds in the HCP area, including common nesting birds and special-status species such as the least

bittern, white-tailed kite, northern harrier, American peregrine falcon, loggerhead shrike, and yellow warbler. No impacts to these birds or their nests would occur from CA-50 in the Proposed Action Alternative. As such, elimination of CA-50 under the Maintain Southern Exclosure Alternative would not change impacts to these nesting birds. The impact to these nesting birds under the Maintain Southern Exclosure Alternative would be ***negligible.***

Non-Lethal and Lethal Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Impacts from CA-50 in the Proposed Action Alternative would not occur including exposure of ground nesting birds such as special-status species California horned lark and some common nesting shorebirds (e.g., killdeer) to disturbance, injury and mortality from recreation and other activities. The non-lethal and lethal impact to ground nesting birds under the Maintain Southern Exclosure Alternative would be ***minor to moderate*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Habitat impact to nesting birds under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to nesting birds under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

5) Other Considered Species

No or Negligible Impact. The East Boneyard Exclosure and 6 Exclosure areas are composed of sand dunes and open beach and do not contain aquatic habitat for CRLF, tidewater goby, WPT, or western spadefoot toad. Likewise, these exclosures do not contain suitable foraging (i.e., aquatic) or roosting (e.g., trees) habitat for bats. CRLF dispersal upland habitat in the areas open to motorized recreation is likely infrequent and would occur at night in wet weather when visitor use is unlikely to occur. Western spadefoot toad is thought to be rare in the HCP area and dispersal through upland habitat in the areas open to motorized recreation is likely very rare, if it occurs at all. Western burrowing owl have never been observed in the seasonal exclosure area and are unlikely to occur in this area because of their sensitivity to recreational activities. American badgers and/or badger dens have never been observed within the areas open to motorized recreation and are unlikely to occur in this area due to their sensitivity to recreation activities. No or negligible impacts on CRLF, tidewater goby, WPT, western spadefoot toad, western burrowing owl, American badgers, and bats or their habitats would occur from CA-50 in the Proposed Action Alternative. As such, elimination of CA-50 under the Maintain Southern Exclosure Alternative would not change impacts to these species. ***No or negligible*** impact to these species from other new activities under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal, Lethal, and Habitat Impact. All other new activities included in the Maintain Southern Exclosure Alternative would have ***negligible to minor*** non-lethal, lethal, and habitat impacts to these species as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to CRLF, tidewater goby, and American badgers under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

4.2.4.2 Wildlife Movement and Nursery Sites

No or Negligible Impact. No or negligible impact to wildlife movement and nursery sites under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Wildlife Movement Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Impacts from CA-50 in the Proposed Action Alternative would not occur including exposure of 109 acres of additional habitat to motorized and non-motorized recreation, which would likely deter wildlife from moving through the area. No barrier or impediment to wildlife movement is created by CA-50. As such, elimination of CA-50 under the Maintain Southern Exclosure Alternative would not change impacts to wildlife movement. All other new activities included in the Maintain Southern Exclosure Alternative would have ***minor*** wildlife movement impacts as described under the Proposed Action Alternative (section 4.2.3.1).

Nursery Site Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Impacts from CA-50 in the Proposed Action Alternative would not occur including exposing nests and chicks to recreation. No substantial impacts to nesting and chick rearing is created by CA-50. As such, elimination of CA-50 under the Maintain Southern Exclosure Alternative would not change impacts to nesting and chick rearing. All other new activities included in the Maintain Southern Exclosure Alternative would have ***negligible*** impacts on breeding, nesting, and chick rearing as described under the Proposed Action Alternative (section 4.2.3.1).

4.2.4.3 Wintering/Migratory Birds

No and Negligible Impact. No or negligible impact to wintering/migratory birds under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal Impact. Under the Maintain Southern Exclosure Alternative, impacts from CA-50 in the Proposed Action Alternative would not occur including disturbance of foraging or roosting migrating birds previously protected by the East Boneyard Exclosure and/or 6 Exclosure and temporary displacement by motorized or non-motorized recreation. All non-lethal impacts to wintering/migratory birds from new covered activities would be ***negligible*** as described under the Proposed Action Alternative (section 4.2.3.1).

Lethal Impact. Under the Maintain Southern Exclosure Alternative, impacts to the East Boneyard Exclosure and 6 Exclosure areas would remain the same as existing conditions described under the No Action Alternative. Impacts from CA-50 in the Proposed Action Alternative would not occur including injury or mortality by vehicle strike. Lethal impact to wintering/migratory birds under the Maintain Southern Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Habitat impact to wintering/migratory birds under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. There are no beneficial impacts to wintering/migratory birds under the Maintain Southern Exclosure Alternative.

4.2.5 Alternative 4: Permanent Year-Round Exclosures

Under the Permanent Year-Round Exclosures Alternative, CDPR would modify existing park operations by permanently closing the 300-acre Southern Exclosure to park visitor activity year-round. Under this alternative, impacts on fish and wildlife from ongoing existing activities would continue to occur outside of the Southern Exclosure the same as described in the No Action Alternative. The impacts on fish and wildlife from new covered activities would occur as described for the Proposed Action Alternative (section 4.2.3) with the exception of impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50); the impacts of CA-50 would be avoided under this alternative. Impacts of CA-50 are fully described in EA Appendix D and the avoidance of these impacts is briefly included below.

4.2.5.1 Special-Status Species

1) Western Snowy Plover

No or Negligible Impact. No or negligible impact to SNPL under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal and Lethal Impact. Under the Permanent Year-Round Exclosure Alternative, existing impacts to SNPL occurring in the East Boneyard Exclosure and 6 Exclosure areas of the park from visitor uses during the winter months and year-round natural resources management activities described under the No Action Alternative would be eliminated. Retention of exclosure fencing year-round would not guarantee that SNPL would stay within the protective fencing. This alternative may reduce but not eliminate the potential risk for take to occur in the HCP area resulting in a ***beneficial*** impact. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor to moderate*** non-lethal and lethal impacts to SNPL as described under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Establishing a permanent year-round exclosure would have a beneficial effect of providing 300 acres of protected wintering habitat for any wintering SNPL that foraged or roosted in the exclosure area. This would reduce the minor to moderate critical habitat impacts associated with existing park visitor activities occurring in the Southern Exclosure during the winter season and with natural resource management activities occurring year-round as described in the No Action Alternative and EA Appendix D.

Results from studies conducted by Dr. Jenny Dugan and Dr. Mark Page (Marine Science Institute at the University of California Santa Barbara) suggest the 7-month closure of breeding habitat during the breeding season is not a sufficient period of time for invertebrates, which are a food source for SNPL, to effectively recover species diversity and abundance along the Southern Exclosure shoreline following natural winter population declines associated with the 5 months of recreational use. In addition, a year-round exclosure would ensure that vegetation and microtopography impacts from winter-season

motorized recreation would be reduced. As a result, establishing the Southern Exclosure as a permanent year-round exclosure would have, at least temporarily, a ***beneficial*** impact on SNPL breeding and wintering habitat by reducing impacts to invertebrates, vegetation, and microtopography from winter recreation. Without chronic disturbance, vegetation would likely re-establish and contribute toward eventual incremental loss of SNPL breeding productivity within the exclosure, which would be a ***minor to moderate*** adverse effect; however, the exact point at which this outcome may occur is not known.

All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** impacts to SNPL habitat as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to SNPL breeding and wintering habitat would occur as described above in habitat impacts. Other benefits to SNPL under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

2) California Least Tern

No or Negligible Impact. No or negligible impact to CLTE under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal and Lethal Impact. Under the Permanent Year-Round Exclosure Alternative, existing impacts to CLTE occurring in the East Boneyard Exclosure and 6 Exclosure areas of the park from visitor uses during the winter months and year-round natural resources management activities described under the No Action Alternative would be eliminated. CLTE do not winter in the HCP area, and this would not change non-lethal and lethal take impacts of CLTE in the HCP area from those described in the No Action Alternative. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** non-lethal and lethal impacts to CLTE as described under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. Establishing the Southern Exclosure as a permanent year-round exclosure would reduce existing impacts from motorized recreation in the winter on vegetation and microtopography necessary for CLTE breeding that occurs under the No Action Alternative. As described above for SNPL, the improved habitat conditions created by the year-round exclosure would have a ***beneficial*** impact on CLTE breeding habitat, but it may be temporary. The reduced productivity within the Oso Flaco area and movement of the majority of CLTE nesting toward the 6 Exclosure is indicative of the potential productivity decline from permanent year-round exclosures. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** impacts to CLTE habitat as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to CLTE breeding habitat would occur as described above in habitat impacts. Other benefits to impact to CLTE under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

3) California (Coast) Horned Lizard and Silvery Legless Lizard

No or Negligible Impact. No or negligible impact to coast horned lizard and silvery legless lizard under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal and Lethal Impact. Under the Permanent Year-Round Exclosure Alternative, existing impacts to coast horned lizard and silvery legless lizard occurring in the East Boneyard Exclosure and 6 Exclosure areas of the park from visitor uses during the winter months and year-round natural resources management activities described under the No Action Alternative would be eliminated. Establishing the Southern Exclosure as a permanent year-round exclosure would extend the protection of upland dispersal habitat from park visitor use by 5 months. However, these species' dispersal through the open riding area is likely infrequent. As a result, the Year-Round Exclosure Alternative would have negligible reduction in existing non-lethal and lethal impacts on coast legless lizard and silvery legless lizard identified in the No Action Alternative. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor to moderate*** non-lethal and lethal impacts to coast horned lizard and silvery legless lizard as described under the Proposed Action Alternative (section 4.2.3.1).

Habitat Impact. No loss of coast horned lizard and silvery legless lizard habitat would occur from changing the Southern Exclosure from a seasonal to a permanent year-round exclosure. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** impacts to coast horned lizard and silvery legless lizard habitat as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to coast horned lizard and silvery legless lizard under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

4) Nesting Birds

No or Negligible Impact. The Southern Exclosure does not contain suitable nesting habitat for most potential nesting birds in the HCP area, including common birds and special-status species such as least bittern, white-tailed kite, northern harrier, American peregrine falcon, loggerhead shrike, and yellow warbler. In addition, ground nesting birds, including special-status species California horned lark, would not be nesting during the winter season. As a result, changing the Southern Exclosure from a seasonal to a permanent year-round exclosure under the Permanent Year-Round Exclosure Alternative would have **no** impact to nesting birds.

Non-Lethal, Lethal, and Habitat Impact. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor to moderate*** non-lethal, lethal, and habitat impacts nesting birds as described under the Proposed Action Alternative (section 4.2.3.1).

5) Other Considered Species

No or Negligible Impact. The Southern Exclosure area is composed of open beach sand and dunes and does not contain aquatic habitat for CRLF, tidewater goby, WPT, or western spadefoot toad. Nor does this exclosure contain suitable foraging (i.e., aquatic) or roosting (e.g., trees) habitat for bats. CRLF and western spadefoot toad could disperse through the area open to motorized vehicles where they could be injured or killed. Establishing the

Southern Exclosure as a permanent year-round exclosure would provide limited upland dispersal habitat free of motorized vehicles during the winter season. However, CRLF and western spadefoot toad dispersal through adjacent areas open to motorized recreation is likely infrequent. Additionally, western spadefoot toad is unlikely to use this area to aestivate. Although suitable winter habitat is present for western burrowing owl within and near the Southern Exclosure, western burrowing owls have never been observed in the exclosure area and are unlikely to occur in this area because of their sensitivity to adjacent recreational activities. American badgers and/or badger dens have never been observed within the exclosure area and are unlikely to occur in this area due to their sensitivity to adjacent recreational activities.

As a result, establishing the Southern Exclosure as a permanent year-round exclosure would have **no or negligible** impact on CRLF, tidewater goby, WPT, western spadefoot toad, western burrowing owl, American badgers, and bats or their habitats.

Non-Lethal, Lethal, and Habitat Impact. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** non-lethal, lethal, and habitat impacts to these species as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. Beneficial impact to CRLF, tidewater goby, and American badgers under the Maintain Southern Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

4.2.5.2 Wildlife Movement and Nursery Sites

No or Negligible Impact. Establishing the Southern Exclosure as a permanent year-round exclosure could prevent wildlife (e.g., large mammals) from moving through the exclosure area during the winter season when an exclosure is not usually present. However, this is an unlikely impact since the area is subject to a large amount of recreation disturbance, and wildlife species are likely already deterred from moving through the area or they use suitable habitat nearby. As a result, changing the exclosure from seasonal to year-round would likely have ***negligible*** impacts on wildlife movement.

Wildlife Movement Impact. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** wildlife movement impacts to these species as described under the Proposed Action Alternative (section 4.2.3.1).

Nursery Sites Impact. The Southern Exclosure is not located in an area used for breeding for any species other than nesting birds (see section 4.2.5.1). As a result, changing the Southern Exclosure from a seasonal to a permanent year-round exclosure under the Permanent Year-Round Exclosure Alternative would have no impact on nursery sites. The impact to nursery sites under the Permanent Year-Round Exclosure Alternative would be ***minor*** as described for the other new covered activities under the Proposed Action Alternative (section 4.2.3.1).

4.2.5.3 Wintering/Migratory Birds

No and Negligible Impact. No or negligible impact to wintering and/or migratory birds under the Permanent Year-Round Exclosure Alternative would occur as described under the Proposed Action Alternative (section 4.2.3.1).

Non-Lethal Impact. All non-lethal impacts to wintering/migratory birds from new covered activities would be ***negligible*** as described under the Proposed Action Alternative (section 4.2.3.1).

Lethal and Habitat Impact. Establishing the Southern Exclosure as a year-round exclosure would likely have limited impacts on wintering/migratory birds, since most wintering/migratory birds would not be expected to use the exclosure for foraging and/or roosting. However, if wintering/migratory birds did use the exclosure for foraging and/or roosting, establishing a permanent exclosure in the winter would provide habitat free of motorized vehicles. All other new activities included in the Permanent Year-Round Exclosure Alternative would have ***minor*** lethal and habitat impacts to wintering/migratory birds as described under the Proposed Action Alternative (section 4.2.3.1).

Beneficial Impact. If wintering/migratory birds did use the exclosure for foraging and/or roosting, establishing a permanent exclosure in the winter would provide habitat free of motorized vehicles. As a result, the impact from changing the exclosure from seasonal to year-round on wintering/migratory birds within the HCP area would be beneficial. There are no beneficial impacts to wintering/migratory birds from other new activities under the Permanent Year-Round Exclosure Alternative.

4.2.6 Cumulative Impacts

The proposed ITP 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 minor if the AMMs or mitigation 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 EA section 3.4, Table 3-1. Potential impacts of these potential projects on special-status species are identified in Appendix E and summarized in Appendix E Table E-1.

As described in EA Appendix E, cumulative effects would be ***minor*** since the AMMs and/or CDPR's standard practices mitigate potential impacts, and there would not be a significant cumulative loss of habitat or special-status species.

Chapter 5 **Vegetation**

5.1 Affected Environment

The affected environment for special-status plants and sensitive vegetation communities is presented in EA Appendix C. Also refer to HCP Maps 9, 16 through 22, and 27.

A list of all plant species considered in this analysis is presented in EA Appendix C, Table C-3. The special-status plant species occurring in the HCP area with a moderate or high potential to be affected by covered activities are listed in Table C-3and further evaluated below. See HCP EIR Appendix C for a description of species considered in this analysis.

5.2 Environmental Consequences

5.2.1 Alternative 1: No Action

Under the No Action Alternative (section 2.1), existing activities identified in Table 2-2 would continue. Impacts to vegetation, including Federal-listed plant species from existing park operations that have occurred in the past would have the potential to continue in the future. Under the No Action Alternative, the Service would not issue an ITP for covered fish and

wildlife species, and listed plants identified in the HCP would not be covered by the Service's No Surprise assurance rule discussed in HCP section 6.5.2.

Under a No Action Alternative, CDPR funding of the current conservation program implemented in the HCP area could continue but this alternative would not ensure ongoing conservation. Without the CDPR funding commitments mandated by an ITP, some of the funding currently used to implement the rigorous monitoring and habitat protection 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 habitat conservation success and/or leave special-status plant species and vegetation communities vulnerable to degradation and mortality in the HCP area.

The impacts of these activities on special-status plant species, sensitive natural communities, and jurisdictional waters and wetlands are fully described in EA Appendix D. These impacts are briefly summarized below.

5.2.1.1 Special-Status Species

Existing Impact. Impacts to special-status plant species predominately occur from park visitor pedestrian activities and during holiday or special events. Park visitors have access to almost 4,100 acres of the approximately 5,000-acre HCP area (EA Appendix C, Table C-5). Park operations such as pesticide use can also impact special-status plants. Natural resources management activities such as species conservation and habitat enhancement activities generally have an overall beneficial effect on special-status plants. Existing activities occurring outside of special-status plant species' habitat have no or negligible risk of impacting these species. The impact from existing activities on these species is minor to moderate. The No Action Alternative would not change the risk of take from existing activities and take impact of existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- ***Direct.*** Plants could be trampled by park visitors or damaged or destroyed during maintenance activities. The ongoing impact is minor.
- ***Indirect.*** Invasive plants could be inadvertently spread by moving seeds or plant segments if they move from one place with invasive species to a less impacted area. Contamination of special-status plants can occur from herbicide spraying. The ongoing impact is minor.
- ***Habitat.*** Modification and degradation of potentially suitable habitat preventing establishment of special-status plant species. The ongoing impact is moderate.
- ***Beneficial.*** Covered activities include plant management and habitat improvements. The ongoing impact is beneficial.

New Impact. New dust control activity (CA-44 – New PMRP Foredune Vegetation) would have potential to impact special-status plants directly or indirectly. The new impact would be ***minor***.

The following new impacts would occur under the No Action Alternative:

- ***Direct.*** Plants could be trampled, damaged, or destroyed during maintenance activities. CDPR would conduct a pre-activity survey to flag and avoid plants if found in the work area. The resulting impact would be minor.

- ***Indirect.*** Plants could be indirectly impacted by potential habitat modification. The resulting impact would be minor.
- ***Habitat.*** Dust control activities could alter habitat by changing species composition as a result of altered wind, sand transport or moisture content. The impact would be minor.
- ***Beneficial.*** Planting dune vegetation would provide additional native vegetation areas, which are suitable habitat for many special-status plants. The impact would be beneficial.

5.2.1.2 Sensitive Natural Communities, Habitats, and Vegetation Alliances

Critical habitat designated by the Service is present within the HCP area for SNPL, tidewater goby, and La Graciosa thistle. The HCP area also contains several Environmentally Sensitive Habitat Areas (ESHAs) as defined by the City of Grover Beach Local Coastal Program (LCP), City of Pismo Beach LCP, and San Luis Obispo County LCP. Impacts to these vegetation communities are discussed in EA Appendix D and briefly summarized below.

Most of the existing activities identified in Table 2-2 occur outside of sensitive natural communities, habitats, and vegetation alliances and have no impact on these vegetation communities. Some existing activities occur in sensitive natural communities, as defined by the Service, CDFW, and/or CCC. Many of these activities do not remove or destroy sensitive natural vegetation communities and/or do not result in significant impacts to sensitive natural communities, habitats, and vegetation alliances. As a result, these activities are considered to have no or negligible impact to sensitive natural communities, habitats, and vegetation alliances. The continuation of these existing activities would have ***no*** new impact on vegetation communities.

Existing Impact. The impact from existing activities on these vegetation communities are minor. The No Action Alternative would not change the risk of take from existing activities and take impact of existing park operations would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative:

- ***Direct.*** Vegetation could be trampled by park visitors or damaged or destroyed during maintenance activities which could alter the sensitive vegetation community. Soils can be disturbed making them less suitable for native vegetation. The ongoing impact is minor.
- ***Indirect.*** Invasive plants could be inadvertently spread by moving seeds or plant segments if they move from one place with invasive species to a less impacted area. Invasive species can out-compete native vegetation, changing the composition of natural communities. The ongoing impact is minor.
- ***Beneficial.*** Covered activities including invasive plant and an animal control, native vegetation planting, pesticide use, and water quality monitoring improve habitat by removing invasive plants, protecting water quality, and creating new habitat benefits for native vegetation and sensitive natural communities in the HCP area. Perimeter and vegetation island fencing also benefits sensitive natural communities by

restricting vehicles from entering native vegetation areas and/or driving out of the HCP area into off-site sensitive areas. The ongoing impact is beneficial.

New Impact. New dust control activity (CA-44 – New PMRP Foredune Vegetation) would have potential to impact vegetation communities. The new impact would be ***minor***.

The following new impacts would occur under the No Action Alternative:

- ***Direct.*** Plants could be trampled, damaged, or destroyed during maintenance activities. CDPR would conduct a pre-activity survey to flag and avoid plants if found in the work area. The resulting impact would be minor.
- ***Indirect.*** Plants could be indirectly impacted by potential habitat modification. The resulting impact would be minor.
- ***Habitat.*** Dust control activities could alter habitat by changing species composition as a result of altered wind, sand transport or moisture content. The 52 acres of foredune area is considered ESHA and critical habitat for La Graciosa thistle. These areas support little to no dune vegetation. Deployment of equipment for temporary monitoring could require vegetation removal on less than 0.5 acre. The resulting impact would be minor.
- ***Beneficial***. No beneficial impacts to sensitive vegetation communities would occur from this activity.

5.2.1.3 Jurisdictional Waters, including Wetlands

The majority of existing activities occur outside of aquatic areas and have no impact on jurisdictional waters and wetlands. Some existing activities including park visitor uses, natural resources management, park maintenance, and other activities may overlap with aquatic habitats. However, these activities would not modify waters or habitat values and are not subject to Section 404/401 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, or Section 1600 of the California Fish and Game Code. As a result, these activities are considered to have no or negligible impact on jurisdictional waters and wetlands. The continuation of these existing activities would have ***no*** new impact on jurisdictional waters and wetlands.

Existing Impact. Impact to jurisdictional waters and wetlands could occur from existing park operations including maintenance of riparian drainages (CA-26) and pesticide use (CA-51). The impact from these activities is minor. The No Action Alternative would not change the risk of impact. The impact would remain unchanged resulting in ***no*** new impact.

The following existing impacts would continue under the No Action Alternative.

- **Direct.** Results in removal of riparian species and/or fill within jurisdictional waters. The ongoing impact is minor.
- **Indirect Impact.** Invasive plant species could be introduced. Work within or adjacent to water could result in erosion or sedimentation. Work within or adjacent to water could result in contamination with hazardous materials (e.g., pesticides). The ongoing impact is minor.
- **Beneficial Impact.** Invasive plant removal and water quality monitoring benefit jurisdictional waters by providing data on and/or improving water quality.

New Impact. New dust control activity (CA-44 – New PMRP Foredune Vegetation) would not impact jurisdictional waters. Therefore, there would be ***no*** new impacts.

5.2.2 Alternative 2: Proposed Action

5.2.2.1 Special-Status Plant Species

A detailed evaluation of the impacts of HCP covered activities on special-status plant species is presented in EA Appendix D and summarized below. Existing visitor use, natural resources management, or park operation activities occurring within the HCP area have ongoing effects, which are part of existing environmental conditions. These effects are summarized in the No Action Alternative. No changes to these existing covered activities are proposed by the HCP under the Proposed Action Alternative. The continuance of these activities would have no new impact on listed plants.

New activities either proposed or contemplated by CDPR as new park operations that could be implemented within the HCP area would have new effects on special-status plant species as described below.

No or Negligible Impact. ITP covered activities occurring outside of special-status plant species' habitat and those activities that avoid impacts through implementation of AMMs would have ***no or negligible*** impact to special-status plant species. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-50; CA-52).*

Direct Impact. Plants could be trampled by park visitors or damaged or destroyed during maintenance activities or special projects. AMMs would be applied as appropriate. The impact would be ***minor***. *(CA-41; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49).*

Indirect Impact. Invasive plants could be inadvertently spread by moving seeds or plant segments if they move from one place with invasive species to a less impacted area. The impact would be ***minor***. *(CA-41; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49).*

Habitat Impact. Removal, modification, and degradation of potentially suitable habitat preventing establishment of special-status plant species. The impact is ***minor***. *(CA-42; CA-49).*

Beneficial Impact. Covered activities include plant management and habitat improvements that have a net ***beneficial*** impact. *(CA-41; CA-44 – New PMRP Foredune Vegetation).*

5.2.2.2 Sensitive Natural Communities, Habitats, and Vegetation Alliances

No or Negligible Impact. Covered activities occurring outside of sensitive natural communities, habitats, and vegetation alliances do not remove or destroy sensitive natural vegetation communities or result in significant impacts to sensitive natural communities. As a result, these activities are considered to have ***no or negligible*** impacts on sensitive natural communities, habitats, and vegetation alliances. *(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-12b – SNPL Adult Banding; CA-50; CA-52).*

Direct Impact. Plants could be trampled by park visitors or damaged or destroyed during maintenance activities, which could alter the sensitive natural community. The impact would be ***minor***. *(CA-21 – Mechanical Trash Removal); CA-41: CA-42: CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49).*

Indirect Impact. Invasive plants could be inadvertently spread by moving seeds or plant segments if they move from one place with invasive species to a less impacted area. The impact would be ***minor***. *(CA-41; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49).*

Habitat Impact. Removal, modification, and/or degradation of sensitive natural vegetation communities. The impact is ***minor***. *(New Covered Activities: CA-42; CA-49)*

Beneficial Impact. Covered activities including invasive plant and an animal control, native vegetation planting, and water quality monitoring improve habitat by removing invasive plants, protecting water quality, and creating new habitat benefits for native vegetation and sensitive natural communities in the HCP area. Perimeter and vegetation island fencing also benefits sensitive natural communities by restricting vehicles from entering native vegetation areas and/or driving out of the HCP area into off-site sensitive areas. *(CA-41).*

5.2.2.3 Jurisdictional Waters and Wetlands

No or Negligible Impact. Covered activities occurring outside of aquatic areas would have no impact on jurisdictional waters and wetlands. Some covered activities may overlap with aquatic habitats. However, these activities would not modify waters or habitat values and are not subject to Section 404/401 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, or Section 1600 of the California Fish and Game Code. As a result, these activities are considered to have ***no or negligible*** impact on jurisdictional waters or wetlands. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-42; CA-44 – New PMRP Foredune Vegetation; CA-49; CA-50; CA-52).*

Direct Impact. Results in removal of riparian species and/or fill within jurisdictional waters. The impact is ***minor***. *(CA-41; CA-48).*

Indirect Impact. Invasive plant species could be introduced. Work within or adjacent to water could result in erosion or sedimentation. The impact is ***minor***. *(CA-41; CA-48).*

Beneficial Impact. The Pismo Creek Estuary (floating) bridge would have a beneficial impact of providing beach access and preventing erosion and trampling of wetland riparian vegetation by pedestrians. *(CA-41)*

5.2.3 Alternative 3: Maintain Southern Exclosure

Under the Maintain Southern Exclosure Alternative, impacts on vegetation from ongoing existing covered activities would continue to occur the same as described in the No Action Alternative. The impacts on vegetation from new covered activities would occur as described for the Proposed Action Alternative (section 5.2.2) with the exception of impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50), which are ***no or negligible***; the impacts of CA-50 would be avoided under this alternative.

5.2.4 Alternative 4: Permanent Year-Round Exclosure

Under the Permanent Year-Round Exclosure Alternative, impacts on vegetation from ongoing existing covered activities would continue to occur outside of the Southern Exclosure the same as described in the No Action Alternative. The impacts on vegetation from new covered activities would occur as described for the Proposed Action Alternative (section 5.2.2) with the exception of impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50), which are none to negligible; the impacts of CA-50 would be avoided under this alternative.

Changing the Southern Exclosure from a seasonal to a permanent year-round exclosure prohibits motorized recreation in this area for an additional 5 months of out of the year and could provide enough protection from recreation disturbance that native vegetation begins to re-establish and special-status plant species, including beach spectaclepod, surf thistle, and La Graciosa thistle could grow in this area. As a result, the year-round exclosure could provide a net ***beneficial*** impact for special-status plant species and sensitive natural communities.

5.2.5 Cumulative Impacts

The proposed ITP 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 minor if the AMMs or mitigation 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 EA section 3.4, Table 3-1. Potential impacts of these potential projects on special-status plant species are identified in EA Appendix E and summarized in EA Appendix E Table E-1.

As described in EA Appendix E, cumulative effects would be ***minor*** since the AMMs and/or CDPR's standard practices mitigate potential impacts and there would not be a significant cumulative loss of habitat or special-status species.

Chapter 6 **Air Quality**

6.1 Affected Environment

The affected environment for air quality is presented in EA Appendix C.

6.2 Environmental Consequences

6.2.1 Alternative 1: No Action

Under the No Action Alternative, the existing park visitor activities, natural resources management, park maintenance, visitor services, and other ongoing activities identified in Table 2-2 would continue. Many of these existing activities do not involve ground disturbance or source emissions of criteria pollutants and have no or negligible impact on air quality. The continuation of existing activities would have ***no*** new impact on air quality.

6.2.1.1 Periodic Activity – Exhaust and Dust Emissions

Existing Impact. Some covered activities occur periodically and generate temporary short-term emissions of criteria air pollutants from vehicle exhaust (e.g., vehicles transporting staff

to work sites and construction equipment used for grading and excavation). Also, fugitive dust (particulate matter less than 10 microns; PM_{10}) can be generated by vehicles driving on the sand surface creating active surface disturbance. Periodic emissions include both existing park operations and potential (CA-10, CA-11, CA-12a and CA-12b, CA-17, CA-32, CA-33, CA-34, CA-46, and CA-51). These activities do not occur on a continual basis and the air quality impact of these activities is minor. The No Action Alternative would not change these existing park operations and the impact of emissions from periodic activity would remain unchanged resulting in ***no*** new impact.

New Impact. CDPR activities associated with implementation of CA-44 – New PMRP Foredune Vegetation could involve short-term emissions similar to existing park operations as described above. The resulting new impact of periodic exhaust and dust emissions would be ***minor***.

6.2.1.2 Continuous Activity – Exhaust Emissions

Existing Impact. CA-1, CA-2, and CA-8 all contribute to the existing ambient air quality conditions at Oceano Dunes SVRA. The operation of internal combustion engines used in OHVs (CA-1), camping (e.g., motorhomes; CA-2) and boats (CA-8) all generate exhaust emissions. CA-21, CA-22, CA-26, CA-28, CA-29 consist of activities that are required to keep the Oceano Dunes SVRA clean, safe, and attractive to visitors. Exhaust emissions are generated from the operation of internal combustion engines in on- and off-road vehicles. CA-32 to CA-37 (excluding CA-35) consist of continuous activities (and associated criteria air pollutant emissions) at Oceano Dunes SVRA related to emergency response (medical and otherwise), OHV rentals, and other recreational services. These existing actions generate exhaust emissions from fuel combustion. CA-40 and CA-51 consist of activities that emit criteria air pollutant emissions in the form of exhaust from the use of vehicles needed to carry out specific tasks (i.e., vehicular crossing at creeks, carrying out surveys, application of pesticides). The maximum daily number of park visitor vehicles that may operate in the HCP area is limited to 2,580 street-legal vehicles; 1,000 street-legal vehicles for camping; and 1,720 OHVs. Emissions from these vehicles are spread throughout the approximately 1,370 acres open to vehicle use in the HCP area. Vehicle operations occur intermittently with some occurring for several hours at a time depending upon the intended use. Vehicle exhaust emissions from existing activities are not a substantial source of air emissions and the impact is minor. The No Action Alternative would not change these existing park operations and the impact of exhaust emissions from continuous activity would remain unchanged resulting in ***no*** new impact.

New Impact. CDPR implementation of CA-44 – New PMRP Foredune Vegetation would not result in continuous new exhaust emissions. All exhaust emissions associated with this activity would be periodic as described above in section 6.2.1.1. ***No*** new continuous exhaust impact would occur.

6.2.1.3 Continuous Activity – Dust Emissions

Existing Impact. Fugitive dust in the form of PM_{10} and $PM_{2.5}$ is also emitted from vehicles traveling along the sand's surface, habitat management activities, and other small construction (e.g., fence management) that may require excavation (CA-21, CA-22, CA-26, CA-28, CA-29, CA-32, CA-33, CA-34, CA-36, CA-37). CDPR vehicles on the beach occur routinely at a low level (e.g., several vehicles on the beach per day for monitoring, patrols, or maintenance). CDPR vehicles typically travel along the shoreline and do not routinely

disturb the sand dunes. As a result, PM emissions associated with CDPR vehicles from park operations are minor***.***

Continual disturbance of the sand surface by motorized recreation (CA-1 and CA-2), periods of high visitor use (CA-10 and CA-11), and vehicles traveling on the dune/beach surface during routine park operations (CA-21, CA-22, CA-26, CA-28, CA-29) can cause PM to become airborne (i.e., emitted) in the atmosphere. Exceedances of PM ambient air quality standards, as measured by downwind monitors, occur as existing conditions (EIR section 5.1.2). CDPR currently implements some dust control measures (CA-44), which are expected to benefit ambient air quality by reducing PM_{10} emissions and producing compliance with air quality standards. The impact on air quality from motorized recreation and park vehicle use on the beach/dune areas is moderate***.***

The No Action Alternative would not change these existing park operations and the impact of dust emissions from continuous activity would remain unchanged resulting in ***no*** new impact.

New Impact. New dust control measures would be implemented on an additional 52 acres of foredune area in the open riding area (CA-44 – New PMRP Foredune Vegetation). As part of the PMRP, CDPR is developing a 48-acre vegetated foredune, plant up to 4 additional acres of foredune vegetation. These activities would control fugitive dust emissions from within the SVRA and reduce concentrations of dust and PM downwind of the SVRA. Thus, the PMRP is anticipated to have a beneficial effect on air quality, although the actual benefit resulting from the PMRP is not known at this time and may not be known with certainty until such time as the PMRP is fully implemented. The 48-acre foredune area has been fenced and subjected to test planting treatments with 85 percent of the area either planted or seeded. The resulting new impact would be ***beneficial***.

6.2.2 Alternative 2: Proposed Action

Under the Proposed Action Alternative (section 2.2), existing and new park operations identified in Table 2-2 would occur. Effects on air quality from ongoing existing covered activities are part of the baseline environmental conditions and would continue to occur without project approval as described in the No Action Alternative. The assessment of the Proposed Action Alternative is limited to environmental changes caused by issuance of the ITP. The HCP does not propose changes to these existing activities; therefore, the continuance of these activities under ITP authorization would not introduce change from baseline environmental conditions and would not create new impacts. Ongoing impacts are not addressed as part of the impact analysis of the Proposed Action Alternative.

The air quality impacts of 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-21 – Mechanical Trash Removal, CA-50, and CA-52 are analyzed in the HCP EIR section 5.3. Additional covered activities (e.g., CA-44 – New PMRP Foredune Vegetation and CA-42) are analyzed in EIR section 5.4. These impact discussions are incorporated here by reference. The conclusions of the EIR impact analysis are summarized below in the discussion of these covered activities.

Covered activities involving no ground disturbance and no or nominal source emissions of criteria pollutants would have ***no or negligible*** impact on air quality (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-12b – SNPL Adult Banding; CA-52).

6.2.2.1 Periodic Activity – Exhaust and Dust Emissions

Some covered activities occur periodically and generate temporary short-term emissions of criteria air pollutants from vehicle exhaust (e.g., vehicles transporting staff to work sites and construction equipment used for grading and excavation). Also, fugitive dust (PM_{10}) can be generated by vehicles driving on the sand surface creating active surface disturbance. Periodic emissions include both existing park operations and potential future short-term construction projects. These activities do not occur on a continual basis and the resulting air quality impact of emissions from periodic activities would be ***minor***. *(CA-21 – Mechanical Trash Removal; CA-41, CA-42, CA-44 – New PMRP Foredune Vegetation; CA-48; CA-49).*

6.2.2.2 Continuous Activity – Exhaust Emissions

New covered activity would allow OHV trail riding in the 40 Acres area and would extend public access to the 6 Exclosure and East Boneyard Exclosure from 5 months (fall and winter) to year-round. The operation of internal combustion engines used in OHVs generate exhaust emissions. The maximum daily number of park visitor vehicles that may operate in the HCP area is limited to 2,580 street-legal vehicles; 1,000 street-legal vehicles for camping; and 1,720 OHVs. Emissions from these vehicles are spread throughout the approximately 1,370 acres open to vehicle use in the HCP area. Vehicle operations occur intermittently with some occurring for several hours at a time depending upon the intended use. Vehicle exhaust emissions from motorized recreation is not a substantial source of air emissions. The OHV exhaust emissions associated with increased riding area opportunities would not substantially increase the total exhaust emissions occurring within the HCP area due to the fixed vehicle limit. The resulting new impact of exhaust emissions from continuous activity would be ***minor***. *(CA-42; CA-50).*

6.2.2.3 Continuous Activity – Dust Emissions

Mechanical Trash Removal (CA-21). Mechanical trash removal would occur on roughly 140 acres with the maximum amount of area treated per day 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. The process of mechanical trash removal would actively disturb the surface of the sand and remove debris and organic material from the top approximately 2–6 inches of the sand surface. The frequency of mechanical trash removal that would be conducted at Oceano Dunes SVRA and what effects it could have on long-term surface emissivity in the areas that have been treated are unknown. Mechanical trash removal could physically change the beach or dune surface by reducing the amount or size of natural debris, and therefore, increase the exposure of the dune surface to wind and the amount of potential sand available for transport and dust generation. The potential increases in emissivity in areas that already exhibit a relatively higher potential to emit than other portions of the SVRA (e.g., the area between Post 4 and the northern boundary of the existing seasonal exclosure [Figure 12]), and which are located in or near the upwind area of influence for the CDF monitoring station (see HCP EIR section 5.3.2.1), are considered a potentially significant impact. The HCP EIR identifies mitigation to reduce potential increases in dust emissions associated with mechanical trash removal (Mitigation Measure AIR-1D; HCP EIR section 5.5). With the implementation of mitigation adopted by CDPR in their mitigation monitoring program approved for the HCP, the impact of PM_{10} emissions from mechanical trash removal would be ***moderate***.

Riding in 40 Acres (CA-42). Riding in 40 Acres would generate new PM emissions in the southern area of the SVRA. These emissions would not be substantial, however, since: 1) CA-42 would not affect the daily ridership limits established in the CDP; 2) the riding trail(s) considered would be surrounded by established dune vegetation (therefore reducing the potential for dust and PM disturbed by trail riding to become entrained in the ambient air); and 3) there are no sensitive receptors located directly downwind. The 40 Acres area is south of the area of influence for Mesa2 (Figure 11) and trail development and riding in 40 Acres is unlikely to contribute to air quality standard exceedances at Mesa2 and would not generate emissions impacting the Nipomo Mesa community. Therefore, the air quality impact associated with CA-42 would be ***minor***.

Reduction of the Boneyard and 6 Exclosures (CA-50). The East Boneyard Exclosure and 6 Exclosure areas are two, existing, seasonal exclosures consisting of 49 and 60 acres, respectively. The East Boneyard Exclosure and 6 Exclosure, combined (109 acres), represent less than 10 percent of the open riding area (approximately 1,370 acres). Individually, they represent approximately 3.6 percent and 4.4 percent of the total open riding area, respectively. Whereas the entirety of the East Boneyard Exclosure would be eliminated during the first year of the HCP, the 6 Exclosure would be reduced annually in 328-foot increments (12 percent of the exclosure length; approximately 7.5 acres) as long as specific biological criteria are being met and maintained (HCP section 5.2.3). These approximately 7.5-acre, annual increments reflect approximately 0.55 percent of the total open riding area. Under the fastest timeframe, it would take approximately 8 years to fully reduce the 6 Exclosure. In contrast, during the first year of HCP implementation, the East Boneyard Exclosure would be eliminated (i.e., the full 49 acres would be available for year-round riding).

Boneyard Exclosure and 6 Exclosure are areas open to OHV recreation from October 1 through February 28. Year-round recreation in these areas would create 7 months (March 1 to September 30) of new sand exposure to OHV recreation, which includes the spring windy season at the SVRA. This could result in changes to dust emissions originating from the East Boneyard Exclosure and 6 Exclosure.

Potential Changes in Surface Emissivity (Dust Emissions). Dust emission from surfaces in Oceano Dunes SVRA open riding and camping area vary, with some areas having higher emissions and other areas having lower emissions. The Boneyard Exclosure and 6 Exclosure are currently considered to be areas of relatively lower emissions (Figure 12). It is uncertain at this point what amount of change, if any, year-round OHV recreation in the East Boneyard Exclosure and 6 Exclosure would have on overall dust emissions downwind of the SVRA. Potential changes in surface emissivity characteristics caused by implementation of CA-50 are not be accounted for in the current Stipulated Order of Abatement (SOA) modeling and thus could interfere with 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 San Luis Obispo Air Pollution Control District (SLOAPCD) and OHMVR Division monitoring stations (i.e., California Department of Forestry and Fire Prevention [CDF], Mesa2, NRP, and Oso Flaco) and potential violations of ambient air quality standards.

Potential Changes to Ambient Air Quality and Violations of Ambient Air Quality Standards**.** The East Boneyard Exclosure and 6 Exclosure are located in two different geographic portions of the Oceano Dunes SVRA. Whereas the 6 Exclosure is located along the shoreline, approximately halfway between the SVRA's northern and southern borders, the

East Boneyard Exclosure is inset from the shore along the SVRA's southern border. As such, any potential changes to emission characteristics in the two areas would be most notable at two different downwind locations.

- **6 Exclosure.** As shown in Figure 11, the northernmost portion of the 6 Exclosure is located within the 290° to 295° area of influence, upwind of the CDF site. The proposed incremental, approximately 7.5-acre reductions of the 6 Exclosure may take place from north to south, thus keeping continuity between the remaining portion of the 6 Exclosure and other seasonal ones to the south (e.g., 7 Exclosure) or may occur in an alternate configuration.[4] The initial 7.5-acre reduction proposed for the 6 Exclosure during the first year of HCP implementation represents approximately 4 percent of the total 193-acre upwind area of influence for the CDF monitoring station. If biological conditions are satisfied to continue annual reductions of the 6 Exclosure, then additional annual reductions would occur until the entire portion of the 6 Exclosure upwind of the CDF source area is open to year-round riding; however, only one additional, potential, annual reduction would be within the 290° to 295° area of influence of the CDF monitoring station. In total, approximately 12.5 acres of eliminated 6 Exclosure would be within the 290° to 295° CDF upwind area of influence (equal to 6 percent of the 193-acre upwind area of influence). This area is located 2.4 miles from the CDF monitoring site but would have the highest potential to cause or contribute to measured exceedances of NAAQS or CAAQS at the CDF monitoring station.
- **East Boneyard Exclosure.** The East Boneyard Exclosure is located in the southern portion of Oceano Dunes, inset approximately 1,200 feet from the shore. The proposed 49-acre reduction of the East Boneyard Exclosure would occur during the first year of HCP implementation. No recent studies have been conducted for the portions of Oceano Dunes SVRA that influence PM concentrations at the Mesa2 monitoring site; however, applying the same narrow area of influence documented for the CDF site (290° and 295° upwind) to the Mesa2 monitor reveals that a small portion (approximately 1 acre) of the northern East Boneyard Exclosure falls within the upwind area of influence for Mesa2 (Figure 11). The narrow upwind area of influence for the Mesa2 station is approximately 500 acres in total size; the reduction in the East Boneyard Exclosure encompasses approximately 0.4 percent (1 acre) of the 500-acre upwind area of influence for Mesa2 and is located approximately 3.6 miles from the Mesa2 monitoring station.

  Though the 1 acre of the East Boneyard in the 290° to 295° Mesa2 upwind area of influence is relatively small, and the Mesa2 monitoring station (on average) monitors approximately half the amount of CAAQS exceedances as CDF, increases in surface emissivity and dust generation in the East Boneyard area could possibly cause or contribute to measured exceedances of NAAQS or CAAQS at Mesa2.

Impact 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 for several reasons. First, any potential changes to surface emissivity in the East Boneyard Exclosure and 6 Exclosure would occur in relatively lower emitting areas, and the existing data indicates that these areas, after having undergone an increase, would still be relatively low

[4] In terms of area, this 100-meter/328-foot reduction equates to approximately 7.5-acre increments.

compared to other areas of the SVRA. Second, the East Boneyard Exclosure and 6 Exclosure are located approximately 2.4 and 3.6 miles, respectively, from the air quality monitoring station on which they are most like to have the greatest influence. Third, 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.

The implementation of CA-50 would more likely contribute to CAAQS exceedances than NAAQS exceedances at CDF and Mesa2 if left unchecked. As discussed in EIR section 5.1.2, historically, the CAAQS have been exceeded more frequently than the NAAQS, and unlike the CAAQS, the NAAQS stipulate that individual, daily exceedances do not necessarily constitute a violation. The implementation of CA-50 could, over the short term, impede air quality improvements (i.e., increase the number of CAAQS and NAAQS exceedances and potentially increase CAAQS and NAAQS violations) as well as potentially affect public health in an adverse way.[5]

Accordingly, potential increases in surface emissivity and dust generation from within the reduced exclosure areas as a result of proposed CA-50 are considered a potentially significant impact. Although the potential for this impact to occur is considered limited based on the amount of exclosure areas in relation to the overall riding area, the current emissivity characteristics of the exclosure area, and the rate at which the 6 Exclosure would be reduced, increases in emissivity and dust generation could exacerbate sensitive receptor exposure to substantial pollutant concentrations and/or cause or contribute to exceedances of ambient air quality standards. To ensure that proposed CA-50 does not cause or contribute to adverse changes in ambient air quality or violations of NAAQS and CAAQS for $PM_{2.5}$ and PM_{10}, the OHMVR Division would implement Mitigation Measures AIR-1A, AIR-1B, and AIR-1C (see EIR section 5.5). Mitigation Measure AIR-1A would require quarterly emission monitoring[6] of the reduced exclosure areas using one or more methods accepted by the OHMVR Division, the SAG, and the SLOAPCD for measuring surface emissivity and dust generation at Oceano Dunes SVRA (e.g., PI-SWERL, ambient PM_{10} monitors, etc.). If the monitoring shows emissivity within the new areas available for year-round OHV recreation increases by a factor of three or more,[7] the OHMVR Division would implement Mitigation Measures AIR-1B and AIR-1C, respectively, to control and/or offset emissions, so there is no net change in dust generation and downwind PM_{10} concentrations at Oceano Dunes SVRA. With the implementation of Mitigation Measures AIR-1A, AIR-1B, and AIR-1C, adopted by CDPR in their mitigation monitoring program approved for the HCP, this impact would be reduced to ***moderate***.

[5] As described in EIR section 5.1.2, the CAAQS and NAAQS are air quality standards adopted with the intent of protecting public health.

[6] Since DRI's preliminary finding that OHV activity may be correlated with higher emissivity was based on data points separated by six-month intervals, monitoring on a 3-month interval would provide the OHMVR Division and the Scientific Advisory Group with finer resolution data on potential emission changes. This finer resolution data may provide greater insight into larger phenomena that may affect emissions over the course of the year. The provision that future reductions would be halted after 3 consecutive increases would ensure potential, measured changes are not attributable to temporal shifts.

[7] A factor of three or more is based on DRI's observation that emissivity in the seasonal exclosure had increased after the seasonal exclosure areas had been reduced for approximately 5 months (DRI 2016).

6.2.3 Alternative 3: Maintain Southern Exclosure

Under the Maintain Southern Exclosure Alternative, impacts on air quality from ongoing existing covered activities would continue to occur the same as described in the No Action Alternative. The potential dust emissivity levels associated with vehicle recreation in the East Boneyard Exclosure and 6 Exclosure areas would remain unchanged from current baseline conditions. The impacts on air quality from new covered activities would occur as described for the Proposed Action Alternative (section 6.2.2) with the exception of impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50), which would be avoided under this alternative. The potential to adversely impact ambient air quality conditions or contribute to violations of NAAQS and CAAQS for PM_{10} or $PM_{2.5}$ that occurs with eliminating the 6 Exclosure under the Proposed Action Alternative would not occur under the Maintain Southern Exclosure Alternative. The air quality impact of new covered activities under the Maintain Southern Alternative would be ***minor to moderate***.

6.2.4 Alternative 4: Permanent Year-Round Exclosure

Under the Permanent Year-Round Exclosure Alternative, impacts on air quality from ongoing existing covered activities would continue to occur outside of the Southern Exclosure the same as described in the No Action Alternative. The impacts on air quality from new covered activities would occur as described for the Proposed Action Alternative (section 6.2.2) with the exception of impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50), which would be avoided under this alternative. The potential to adversely impact ambient air quality conditions or contribute to violations of NAAQS and CAAQS for PM_{10} or $PM_{2.5}$ that occurs with eliminating the 6 Exclosure under the Proposed Action Alternative would not occur under the Maintain Southern Exclosure Alternative. The air quality impact of new covered activities under the Maintain Southern Alternative would be ***minor to moderate***.

6.2.5 Cumulative Impacts

The discussion of potential air quality impacts presented in the EA sections above is cumulative in nature. The criterion used to assess the significance of potential impacts is based on the potential to cause or further exacerbate the frequency of CAAQS and/or NAAQS violation days. CDPR has incorporated mitigation measures into the Proposed Action to reduce the potential of such violations (EIR section 5.5). Further, reduction activities would be considered during the PMRP development, which, pursuant to the SOA, is required to be designed such that State and Federal PM_{10} air quality standards are achieved. As such, the cumulative air quality impact of the project would be ***moderate*** with CDPR implementation of its mitigation monitoring plan adopted by CDPR as part of the HCP approval.

Chapter 7 **Cultural and Tribal Resources**

7.1 Affected Environment

The affected environment for cultural resources is presented in Appendix C.

7.2 Environmental Consequences

7.2.1 Alternative 1: No Action

Under the No Action Alternative, existing park visitor activities, natural resources management, park maintenance, visitor services, and other ongoing activities identified in Table 2-2 would continue. All existing activities either occur outside of known sensitive cultural or tribal resource areas (Figure 13) or involve no ground disturbance and have no or negligible impact on cultural or tribal resources The continuation of existing activities would have ***no*** new impact on cultural and tribal resource.

CDPR implementation of CA-44 – New PMRP Foredune Vegetation would occur on 52 acres within the SVRA outside of sensitive cultural resource areas (Figure 13). The area has been heavily disturbed by active recreation and is not known to contain cultural resources. This activity would have no or negligible impact on cultural and tribal resources.

7.2.2 Alternative 2: Proposed Action

Under the Proposed Action Alternative (section 2.2), existing and new park operations identified in Table 2-2would occur. Effects on cultural and tribal resources from ongoing existing covered activities are part of the baseline environmental conditions and would continue to occur without project approval as described in the No Action Alternative. The assessment of the Proposed Action Alternative is limited to environmental changes caused by issuance of the ITP. The HCP does not propose changes to these existing activities; therefore, the continuance of these activities under ITP authorization would not introduce change from baseline environmental conditions and would not create new impact. Ongoing impacts are not addressed as part of the impact analysis of the Proposed Action Alternative.

The cultural resource impacts of 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-21 – Mechanical Trash Removal, CA-50, and CA-52 are analyzed in the HCP EIR section 7.3. Additional covered activities (e.g., CA-44 – New PMRP Foredune Vegetation and CA-42 are analyzed in EIR section 7.4. These impact discussions are incorporated here by reference. The conclusions of the EIR impact analysis are summarized below in the discussion of these covered activities.

Covered activities occurring outside of known cultural and tribal resource areas or involving no or minimal ground disturbance would have no or negligible impact on cultural or tribal resources A CDPR cultural resource monitor would review all new activity areas to confirm all known cultural sites, including sites that are currently buried, are flagged for avoidance and monitored resulting in no or negligible impact. (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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal; CA-41; CA-44 – New PMRP Foredune Vegetation; CA-48; CA-52).

7.2.2.1 Disturbance Impacts in Sensitive Cultural Resource Areas

Riding in 40 Acres (CA-42). The 40 Acres site contains archaeological cultural sites and areas with moderate to high cultural sensitivity. 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 located near cultural resources to ensure resources are protected and avoided. With these measures in place, impacts to cultural resources would be ***moderate.***

Oso Flaco Boardwalk Replacement (CA-48). The Oso Flaco Lake area is predominately surrounded by riparian areas with moderate cultural sensitivity. 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 worksite via a boat or floating platform. New pilings would cause ground disturbance beneath Oso Flaco Lake and impact cultural resources if present. Pier foundations would have a small footprint and would not likely impact cultural resources. Equipment access could disturb surface soils but is unlikely to impact cultural resources that could be present below the soil surface. An archaeologist would survey the work site access areas prior to construction to determine the potential presence of cultural resources. Resources would be flagged for avoidance and monitored. With these measures in place, the impact on cultural resources would be ***negligible***.

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 projects located near cultural resources to ensure resources are protected and avoided. With these measures in place, impacts to cultural resources would be ***minor.***

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50). 6 Exclosure is not within an area of medium or high cultural sensitivity (Figure 13). The edges of the East Boneyard Exclosure area overlap areas of medium and high cultural sensitivity (Figure 13). There are two sites partially within the East Boneyard Exclosure 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 they 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 new impacts to cultural resources would occur from the proposed fencing changes allowing year-round access to the East Boneyard Exclosure and 6 Exclosure areas. The effects of the exclosure reduction on cultural resources are ***negligible***.

7.2.3 Alternative 3: Maintain Southern Exclosure

Under the Maintain Southern Exclosure Alternative, impacts on cultural and tribal resources from ongoing existing covered activities would continue to occur the same as described in the No Action Alternative. The impacts on cultural and tribal resources from new covered activities would occur as described for the Proposed Action Alternative (section 7.2.2). The retention of the East Boneyard and 6 exclosures under the Maintain Southern Exclosure Alternative would not reduce existing or proposed impacts to cultural or tribal resources. The impact to cultural resources from new covered activities under the Maintain Southern Alternative would be ***negligible to moderate***.

7.2.4 Alternative 4: Permanent Year-Round Exclosure

Under the Permanent Year-Round Exclosure Alternative, impacts on cultural and tribal resources from ongoing existing covered activities would continue to occur the same as described in the No Action Alternative. The impacts on cultural and tribal resources from

new covered activities would occur as described for the Proposed Action Alternative (section 7.2.2). The permanent retention of the Southern Exclosure under the Permanent Year-Round Exclosure Alternative would not reduce existing or proposed impacts to cultural or tribal resources. The impact to cultural resources from new covered activities under the Maintain Southern Alternative would be ***negligible to moderate***.

7.2.5 Cumulative Impacts

Potential future projects considered in the cumulative analysis are identified in EA section 3.4, Table 3-1. Of the listed projects, two potential future HCP new activities could be located in sensitive cultural resource areas (CA-15, CA-44 – New PMRP Backdune). The specific location of these potential future projects and possible impacts on cultural resources is not yet determined. Future projects identified in the CDPR Public Works Plan may also be proposed in areas with known cultural resources. CDPR would address impacts to these resources at the time they are proposed and undergo environmental review. The new ITP covered activities (CA 42, CA-49) could potentially result in minor to moderate impacts to archaeological resources within the HCP area. 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. For these reasons, the HCP would have ***no cumulative impact*** on cultural resources.

Chapter 8 **Recreation**

8.1 Affected Environment

The affected environment for recreation is presented in EA Appendix C.

8.2 Environmental Consequences

8.2.1 Alternative 1: No Action

Under the No Action Alternative, existing park visitor activities, natural resources management, park maintenance, visitor services, and other ongoing activities identified in Table 2-2 would continue. Existing activities do not increase demand for recreational facilities; cause deterioration of facilities; require the expansion of recreational facilities; limit, reduce, or interfere with coastal recreational opportunities, or public access; or create an indirect effect of demand for recreation at off-site locations; and therefore have no or negligible impact on recreation. The continuation of existing activities would have ***no*** new impact on recreation. Park maintenance of facilities (CA-21, CA-22) and visitor services (CA-32, CA-33, CA-34, CA-36, CA-37, CA-39) generally have a beneficial effect on recreation by supporting visitor use of the park.

CDPR implementation of CA-44 – New PMRP Foredune Vegetation would treat an existing 48-acre foredune closure near Post 5 and permanently close an additional 4 acres of shoreline riding and camping area in an undetermined location to create a vegetated foredune for the purpose of reducing PM10 emissions. The foredune areas would likely remain accessible to pedestrians once vegetation has grown sufficiently. The 48-acre enclosure is currently closed to motorized recreation and camping, and the additional 4-acre foredune area would also be closed to motorized recreation and camping. The result would be a ***minor*** impact on recreation.

The No Action Alternative would not resolve the issue of unauthorized take of Federal-listed species as described in section 4.2.2. As a result, this alternative could eventually lead to reduced recreation opportunity if CDPR determined additional recreation restrictions were necessary to further minimize the risk of potential, unpermitted take.

8.2.2 Alternative 2: Proposed Action

Under the Proposed Action Alternative (section 2.2), existing and new park operations identified in Table 2-2 would occur. Effects on recreation from ongoing existing covered activities are part of the baseline environmental conditions and would continue to occur without project approval as described in the No Action Alternative. The assessment of the Proposed Action Alternative is limited to environmental changes caused by issuance of the ITP. The HCP does not propose changes to these existing activities; therefore, the continuance of these activities under ITP authorization would not introduce change from baseline environmental conditions and would not create new impact. Ongoing impacts are not addressed as part of the impact analysis of the Proposed Action Alternative.

The recreation impacts of 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-21 – Mechanical Trash Removal, CA-50, and CA-52 are analyzed in the HCP EIR section 8.3. Additional covered activities (e.g., CA-44 – New PMRP Foredune Vegetation and CA-42 are analyzed in EIR section 8.4. These impact discussions are incorporated here by reference. The conclusions of the EIR impact analysis are summarized below in the discussion of these covered activities.

Covered activities that do not increase demand for recreational facilities; cause deterioration of facilities; require the expansion of recreational facilities; limit, reduce, or interfere with coastal recreational opportunities or public access; or create an indirect effect of demand for recreation at off-site locations would have ***no or negligible*** impact on recreation. *(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-12b – SNPL Adult Banding; CA-21 – Mechanical Trash Removal, CA-41, CA-48, CA-52).*

8.2.2.1 Recreation Opportunity

The ITP covered activities do not involve any changes to the established camping or visitor limits established by CDP 4-82-300.

The Pismo Creek Estuary seasonal (floating) bridge (CA-41) and the Oso Flaco boardwalk replacement (CA-48) would have the beneficial effect of providing and maintaining coastal access pedestrian structures.

Other new ITP covered activities would result in a change in acreage available for coastal camping and motorized recreation. New dust control activities (CA-44 – New PMRP Foredune Vegetation) would treat an existing 48-acre foredune closure near Post 5 and permanently close an additional 4 acres of shoreline riding and camping area in an undetermined location to create a vegetated foredune for the purpose of reducing PM10 emissions. The foredune areas would likely remain accessible to pedestrians once vegetation has grown sufficiently. The 48-acre closure is currently closed to motorized recreation and camping, and the additional 4-acre foredune area would also be closed to motorized recreation and camping. Special projects (CA-49) could result in a loss of up to 35 acres of open riding area to provide new facilities supporting park improvements. These

activities would result in a loss of 39 acres of shoreline area open to camping and motorized recreation.

A new trail designation in 40 Acres (CA-42) would open 2 miles of trail riding (4.8 acres) in the backdunes near Oso Flaco resulting in new opportunity for motorized recreation. The elimination of the East Boneyard Exclosure and 6 Exclosure (CA-50) would open up to 109 acres to recreation from seasonally available for 5 months (October through February) to being available all year, if biological success criteria for SNPL and CLTE are met. Reduction of the 6 Exclosure (CA-50) would open up to 60 acres of shoreline riding and camping area at Post 6 from seasonal to year-round. This reduction of the Southern Exclosure would increase the coastal recreational opportunity for camping, vehicular, and other recreation during spring and summer months when park visitation is at its highest levels. This would offset the loss of the 4 acres of shoreline riding and camping area from new dust control activities (CA-44 – New PMRP Foredune Vegetation).

If all 35 acres of special projects were located within the shoreline riding and camping area, the result of the Proposed Action Alternative would be a net gain of 21 acres of shoreline recreation opportunity for coastal camping, riding, and other recreation. Additionally, the elimination of the East Boneyard Exclosure would open 49 acres of backdune riding and camping area from seasonal to year-round, which in conjunction with the new trail in 40 Acres (4.8 acres), would provide a total net gain of 54 acres of backdune coastal area opened to year-round riding and camping. Alternative 2 would have a net increase of 75 acres available for recreation and provide for special projects that generally support recreation as described above and summarized in Table 8-1. As a result, Alternative 2 would have an overall ***beneficial*** impact on coastal recreational opportunity and public access***.*** *(CA-42, CA-44 – New PRMP Foredune Vegetation, CA-49, CA-50).*

Table 8-1. Recreation Impacts of ITP Covered Activities

Covered Activity	Acreage Affected	Type of Recreation
Riding in 40 Acres (CA-42)	4.8 acres added	Back dune recreation: OHV trail riding on new 2-mile trail near Oso Flaco.
New PMRP Foredune Vegetation (CA-44)	4 acres removed	Shoreline recreation: camping, OHV riding, and non-motorized recreation such as equestrian and pedestrian uses.
Special Projects (CA-49)	35 acres removed	Shoreline and/or back dune location. New facilities supporting park improvements
6 Exclosure (CA-50)	60 acres[1] added	Shoreline recreation: camping, OHV riding, and non-motorized recreation such as equestrian and pedestrian uses.
East Boneyard Exclosure (CA-50)	49 acres added	Back dune recreation: OHV,
Net total	75 acres	

[1] Reduction of 6 Exclosure would occur in 100-meter (7.5-acre) increments over a minimum of an 8-year period only if biological success criteria for SNPL and CLTE are met per HCP section 5.2.3

8.2.2.2 Park Facilities

Potential new facilities or facility improvements proposed for ITP coverage generally support recreation opportunity. These activities provide a ***beneficial*** impact. *(CA-21 – Mechanical Trash Removal, CA-41, CA-42, CA-48, CA-49).*

8.2.3 Alternative 3: Maintain Southern Exclosure

Under the Maintain Southern Exclosure Alternative, existing activities would continue the same as described in the No Action Alternative. Existing activities have no adverse impact to recreation opportunity. Park maintenance (CA-21, CA-22) and visitor services (CA-32, CA-33, CA-34, CA-36, CA-37, CA-39) activities would continue to support recreational uses in the HCP area that provide a beneficial impact. No new impact from existing activities would occur.

The recreational benefits of the Proposed Action Alternative from CA-50 would not occur in this alternative, as the seasonal exclosures would be maintained; however, other beneficial impacts, such as riding in 40 acres (CA-42), would occur as described for the Proposed Action Alternative (section 8.2.2)

Without CA-50, the net change in area open to camping is a reduction by 39 acres and a reduction in the area open to motorized recreation by roughly 34 acres. Although decreased acreage available for motorized recreation and camping, it would not create a loss of overall coastal recreational opportunity given that the full array of recreation opportunity presently occurring in the park would continue. The 4-acre foredune would remain open to pedestrian use, and the 35 acres for special projects would provide facilities broadly supporting recreational use. Riding in 40 acres would result in a 4.8-acre gain of new trail riding. For these reasons, the Maintain Southern Exclosure Alternative would not substantially limit, reduce, or interfere with established assortment of coastal recreation opportunities in the HCP area. Therefore, the changes proposed by new covered activities under the Maintain Southern Exclosure Alternative would have a ***minor*** impact on coastal recreation opportunity. *(CA-42, CA-44 – New PRMP Foredune Vegetation, and CA-49).*

8.2.4 Alternative 4: Permanent Year-Round Exclosure

Under the Permanent Year-Round Exclosure Alternative, existing covered activities would continue outside of the Southern Exclosure the same as described in the No Action Alternative. Existing activities have no adverse impact to recreation opportunity. Park maintenance (CA-21, CA-22) and visitor services (CA-32, CA-33, CA-34, CA-36, CA-37, CA-39) activities would continue to support recreational uses in the HCP area providing a beneficial impact. These effects would continue as ongoing impacts. No new impact would occur.

The impacts on recreation from new covered activities would occur as described for the Proposed Action Alternative (section 8.2.2) with the exception of beneficial recreation impacts caused by removal of East Boneyard Exclosure and reduction of 6 Exclosure (CA-50). Potential benefits of increased coastal recreational opportunity for camping, vehicular, and other recreation during spring and summer months associated with CA-50 would not occur.

Permanent closure of the Southern Exclosure to visitor would increase the loss of recreation opportunity on 300 acres of shoreline by 5 months each year (from 7 months to year-round). This loss would occur in addition to the net reduction in camping area of 39 acres (35 acres

special projects and 4-acre foredune) and net reduction in motorized recreation area by 34 (39-acre loss from special projects and foredune less a 5-acre gain from new trail riding in 40 Acres). A full array of recreation opportunity presently occurring in the park would continue; however, the acreage available for motorized recreation and camping would be permanently reduced by 339 acres or 26 percent reduction (from 1,305 acres to 966 acres) when the seasonal exclosure is not in effect (October to February). During the nesting season when recreational access to the Southern Exclosure is already closed (March to September), the additional loss of recreation area would be limited to 39 acres or a 4 percent reduction (from 1,005 acres to 966 acres). This loss would have a ***moderate*** impact on coastal recreation opportunity.

CDPR considered this alternative in the HCP Draft EIR section 9.2.4. 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. CDPR concluded the HCP as proposed (Proposed Action Alternative) 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.

8.2.5 Cumulative Impacts

The area available (open) to motorized recreation and camping has decreased since 1975 when the Pismo Dunes General Plan was first published. The 1975 General Plan identifies 2,000 acres of beach and sand dunes available for OHV recreation. Since 1975, the acreage available for year-round motorized recreation in the Oceano Dunes SVRA has been gradually reduced in response to various factors (e.g., Consent Decree, Dust Control Program, natural and cultural resources management). Seasonal restrictions have also been implemented to protect CLTE and SNPL nesting habitat and to reduce dust emissions. Currently, the riding area open to OHV use is approximately 1,305 acres (an additional 3 acres in the travel alleys within the foredune are closed to camping), which includes approximately 300 acres that are seasonally closed for nesting habitat. Key changes in riding and camping area restrictions are listed in Appendix C, Table C-6.

As discussed above (section 8.2.2), implementation of the proposed HCP would not reduce the total acreage available for recreational use or existing recreational activities including OHV, vehicle, or otherwise. In addition, the HCP does not propose new or expanded recreational facilities, which would cause significant impact, nor does the HCP propose restricting coastal public access or coastal recreation. The HCP has the potential to increase recreational opportunities by allowing year-round recreation on 109 acres, which are presently closed to recreation for 7 months of the year. Thus, the HCP would have a beneficial effect on recreation opportunity by expanding the acreage available to year-round recreation.

Future projects under consideration by CDPR listed in Table 3-1 have the potential to affect recreation opportunity and coastal access. The PMRP would result in increased dust control measures, which could further restrict the riding area open to year-round motorized recreation on an additional approximately 319 acres in the backdunes (non-ITP covered activities) resulting in a combined loss of 247 acres of riding area (including 3 acres of air quality monitoring equipment) from dust control activities (Appendix C, Table C-6). Other

CDPR PWP projects such as facility improvements and a new campground and/or day use area near Oso Flaco Lake could expand recreation opportunity.

The Federal action being considered is issuance of an ITP through implementation of the proposed HCP. The proposed covered activities in the HCP would either not appreciably affect recreational opportunities (loss of 39 acres) if biological success criteria for SNPL and CLTE are not met or increase OHV recreation by 75 acres (Table 8-1). Therefore, the proposed action would not substantially contribute to cumulative effects to recreational opportunities. The HCP would have a ***minor cumulative impact*** on coastal recreational opportunity and public access.

Oceano Dunes District HCP
Environmental Assessment

Figures

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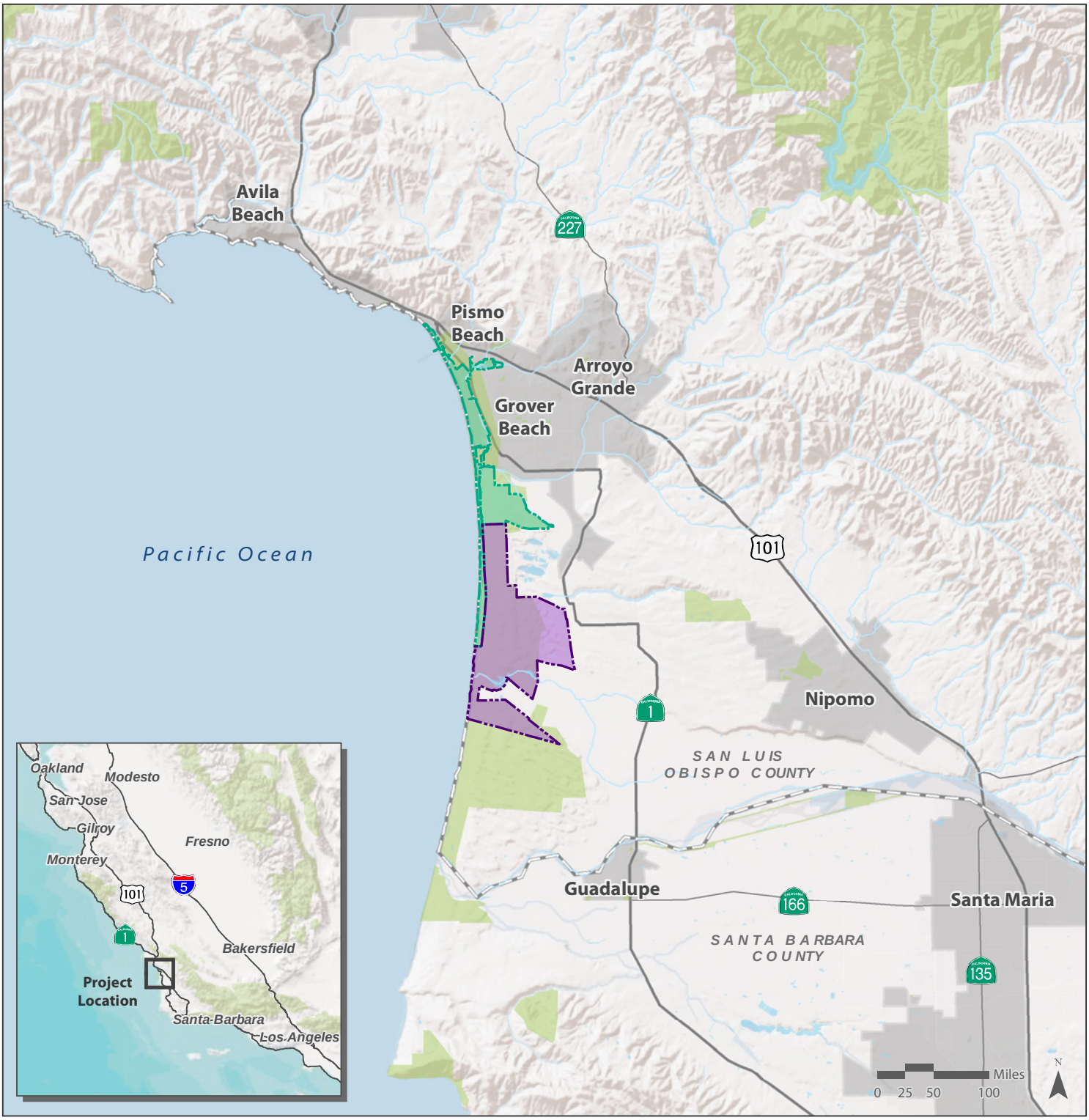


HCP Area

- Oceano Dunes SVRA
- Pismo State Beach

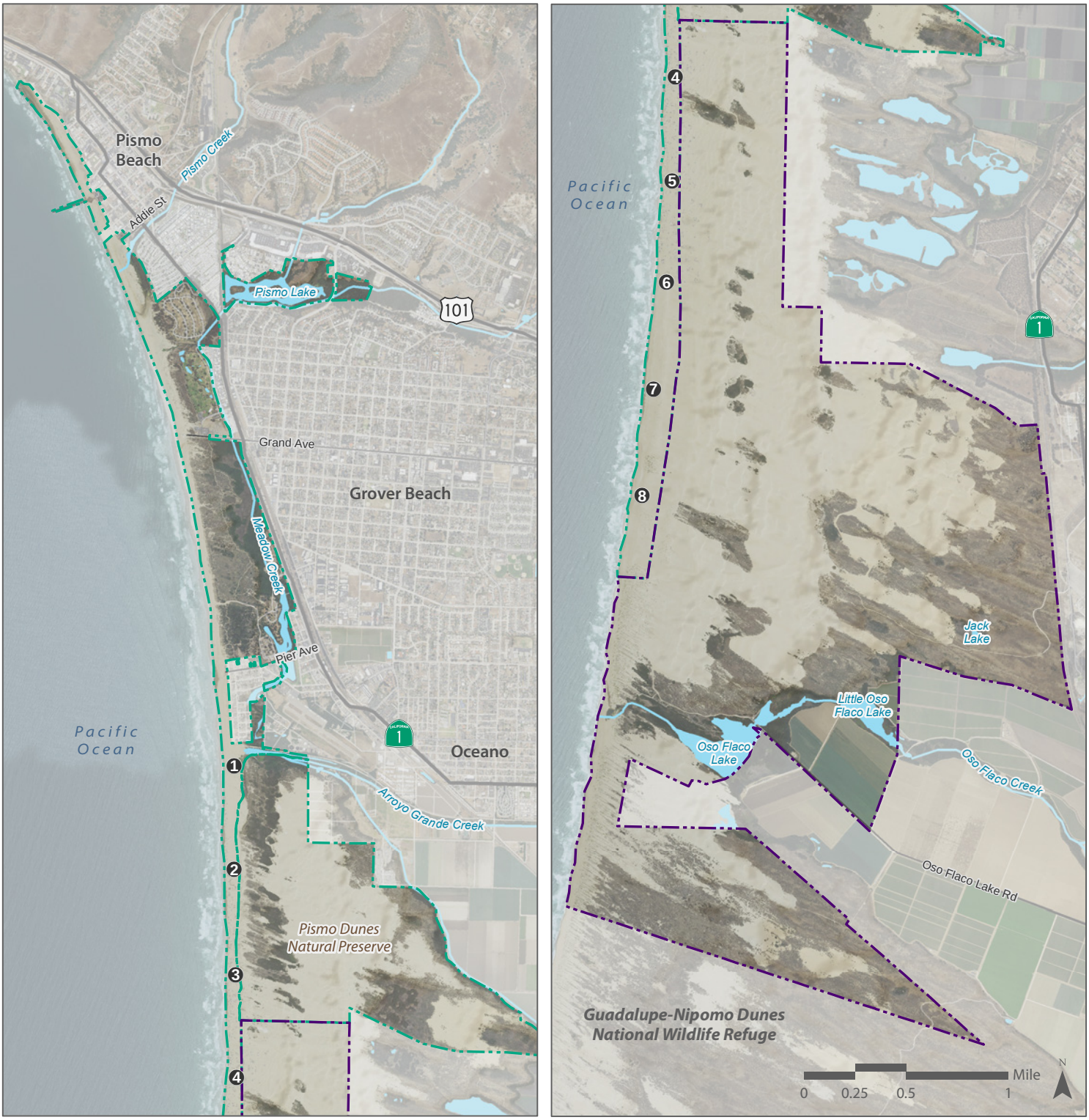
Base Map Features

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

September 2020
Source: CDPR, 2020; SLO Co Open GIS, 2017; MIG, 2020

Figure 1 Regional Location

CDPR, Oceano Dunes District Habitat Conservation Plan EA



HCP Area Boundaries

- Oceano Dunes SVRA
- Pismo State Beach

Base Map Features

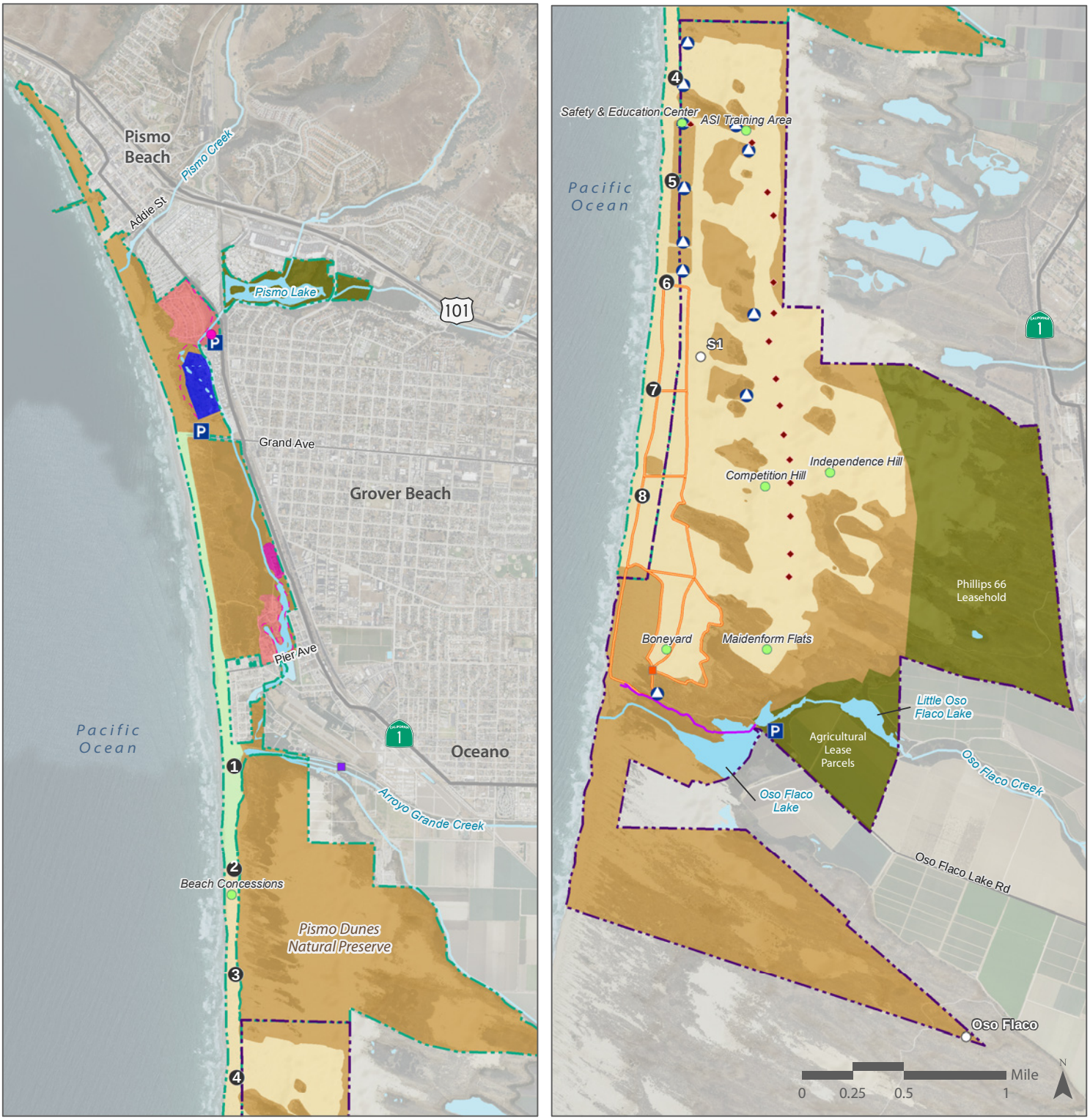
- Marker post
- Waterbody
- Stream
- Highway
- Access road

MIG

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 2 HCP Area Overview

CDPR, Oceano Dunes District Habitat Conservation Plan EA



Land Use & Facilities

- Campground
- Golf course
- Ranger station
- 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
- Guiton crossing
- Air quality monitor
- OHV landmark
- Monarch butterfly grove
- Sand Highway*

Base Map Features

- Oceano Dunes SVRA
- Pismo State Beach
- Seasonal exclosure
- Marker post
- Waterbody
- Stream
- Highway
- Access road

*Approximate location

MIG

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 3 Land Use and Facilities

CDPR, Oceano Dunes District Habitat Conservation Plan EA

Land Use & Facilities

- Campground
- Golf course
- Ranger station
- Street legal vehicles only
- Open to riding and camping
- Closed to motorized vehicles
- Closed to all public use
- Trail
- Unofficial trail*
- Wind fencing
- Parking
- Guiton crossing
- Monarch butterfly grove
- Pismo Lake spillway

Base Map Features

- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Waterbody
- Stream
- Highway
- Access road

*Approximate location

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 4 Land Use and Facilities Detail

CDPR, Oceano Dunes District Habitat Conservation Plan EA

Photograph 1: Park entrance at Grand Avenue

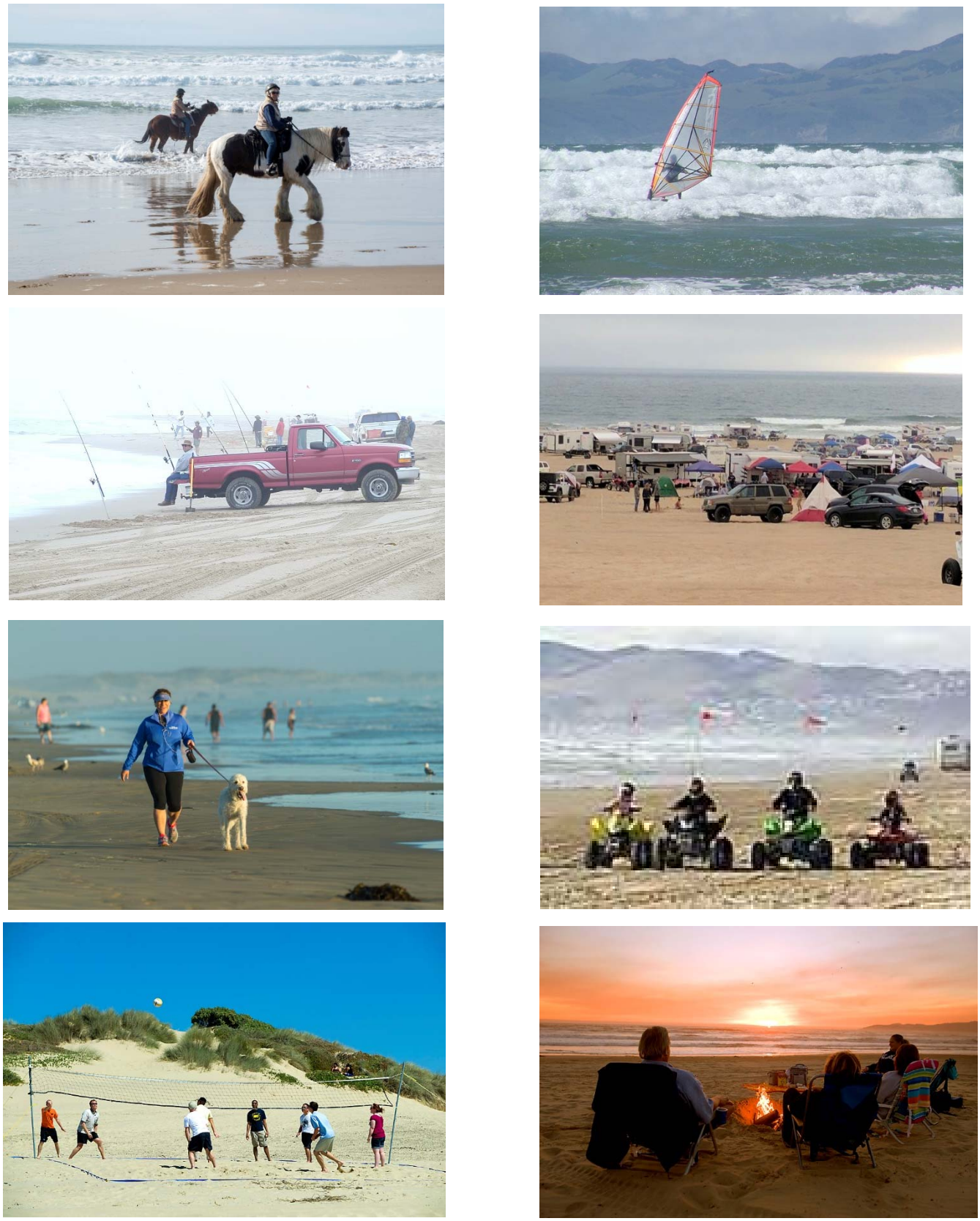
Photograph 2: Park entrance at Pier Avenue

Figure 5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EA

Photograph 3: Sand dune formation in open riding area

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 5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EA

Photograph 6: Safety and Education Center kiosk

Photograph 7: Shoreline west of 6 Exclosure looking south

Photograph 8: Seasonal exclosure fencing in southern portion of SVRA riding area near Oso Flaco Lake

Photograph 9: Seasonal exclosure signage

Photograph 10: Seasonal exclosure bumpout

Figure 5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EA

Photograph 11: Dust control program wind fencing at Eucalyptus Tree

Photograph 12: Dust control program wind fencing at Tabletop

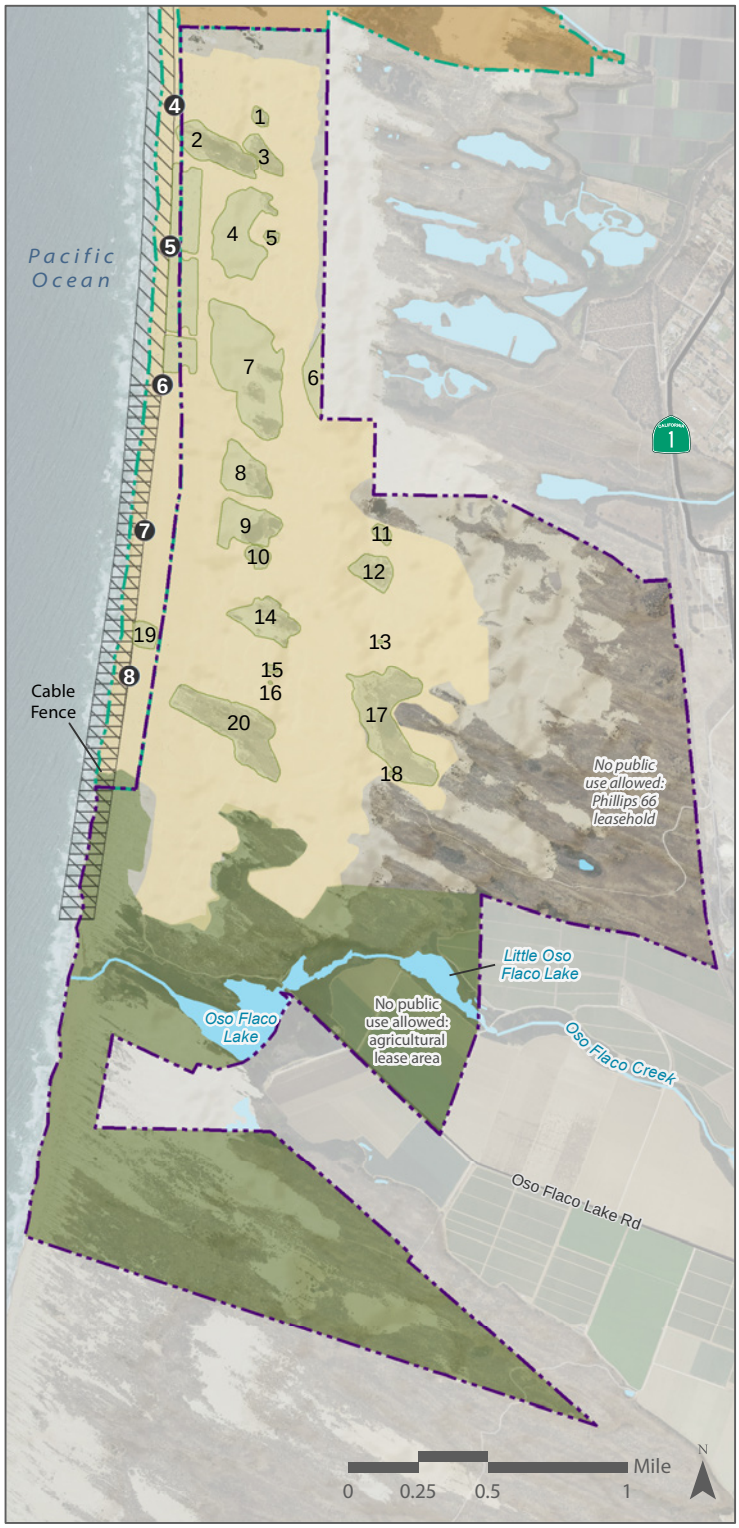
Figure 5 Photographs of Site

CDPR, Oceano Dunes District Habitat Conservation Plan EA

Photograph 13: Oso Flaco Lake Boardwalk

Photograph 14: Oso Flaco Boardwalk kiosk and dune access

Vegetation and Dust Control Islands		
#	Name	Acres
1	Moy Mel	2
2	Pavilion Hill	18.9
3	Worm Valley	6.7
4	BBQ Flats	29.1
5	BBQ Flats South	1.2
6	La Grille Hill	9.1
7	Pawprint	56.8
8	Eucalyptus North	15.8
9	Eucalyptus Tree	17.5
10	Eucalyptus South	3.6
11	Indian Midden South	2.1
12	Boy Scout North	8.8
13	Belly Button	0.1
14	Tabletop	15.9
15	Elvis	0.6
16	Big Mac	0.1
17	Boy Scout Camp	41.5
18	Surprise	0.2
19	7.5 Reveg	4.8
20	Pipeline	35.5



Recreational Restrictions

- Dogs prohibited
- Dogs and horses prohibited
- Open to riding and camping
- Vegetation and dust control islands - closed to riding and camping

Kiteboarding landing/launching

- Wet/dry allowed
- Wet only
- Seasonal

Base Map Features

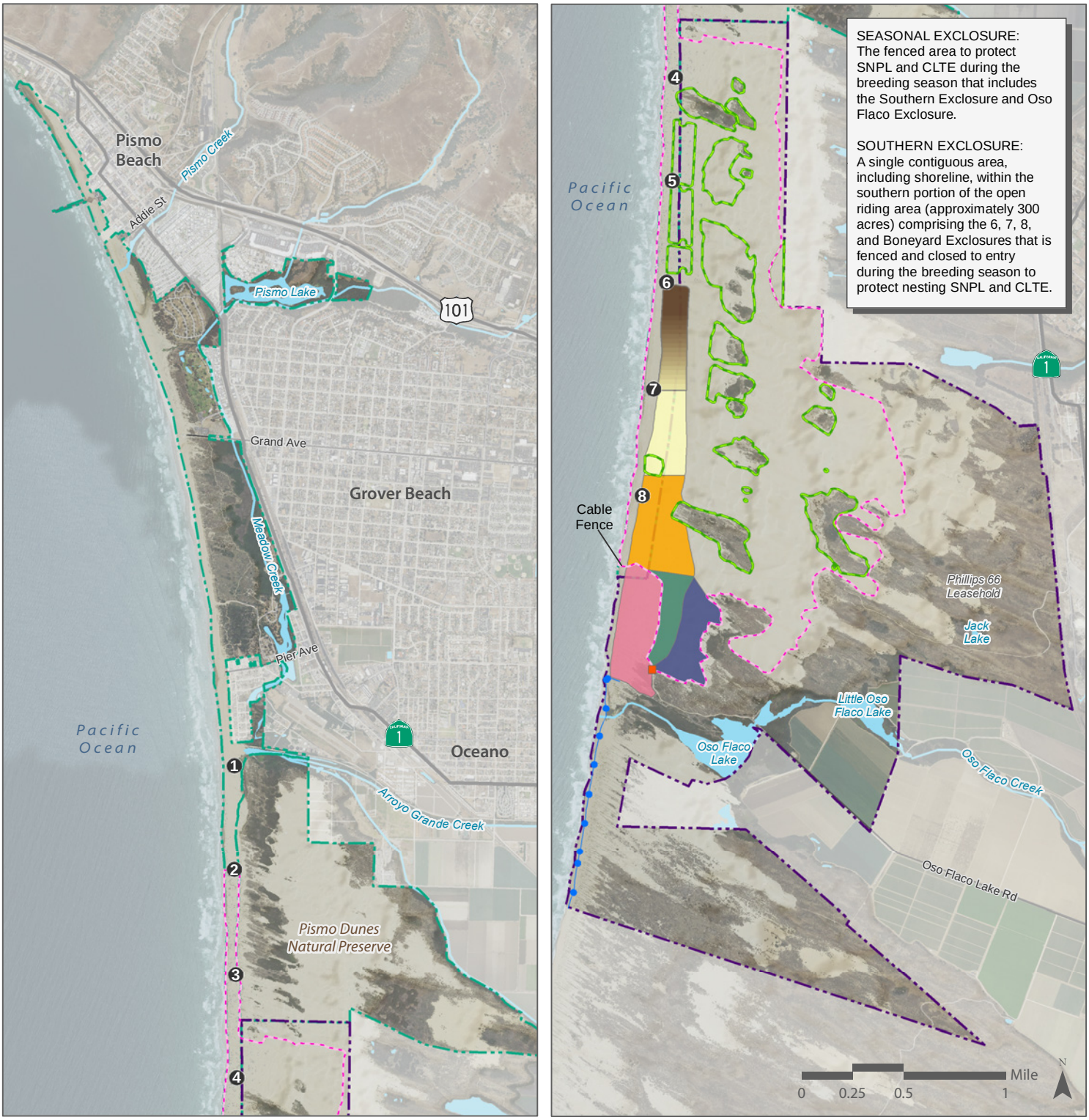
- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Waterbody
- Stream
- Highway
- Access road

MIG

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 6 Recreational Restrictions

CDPR, Oceano Dunes District Habitat Conservation Plan EA



Seasonal Exclosures

- 6 Exclosure
- 7 Exclosure
- 8 Exclosure
- East Boneyard
- West Boneyard
- North Oso Flaco

Fencing & Boundaries

- Vegetation island and dust control fencing
- Riding area boundary
- S. Oso Flaco symbolic fence
- Boneyard gate

Base Map Features

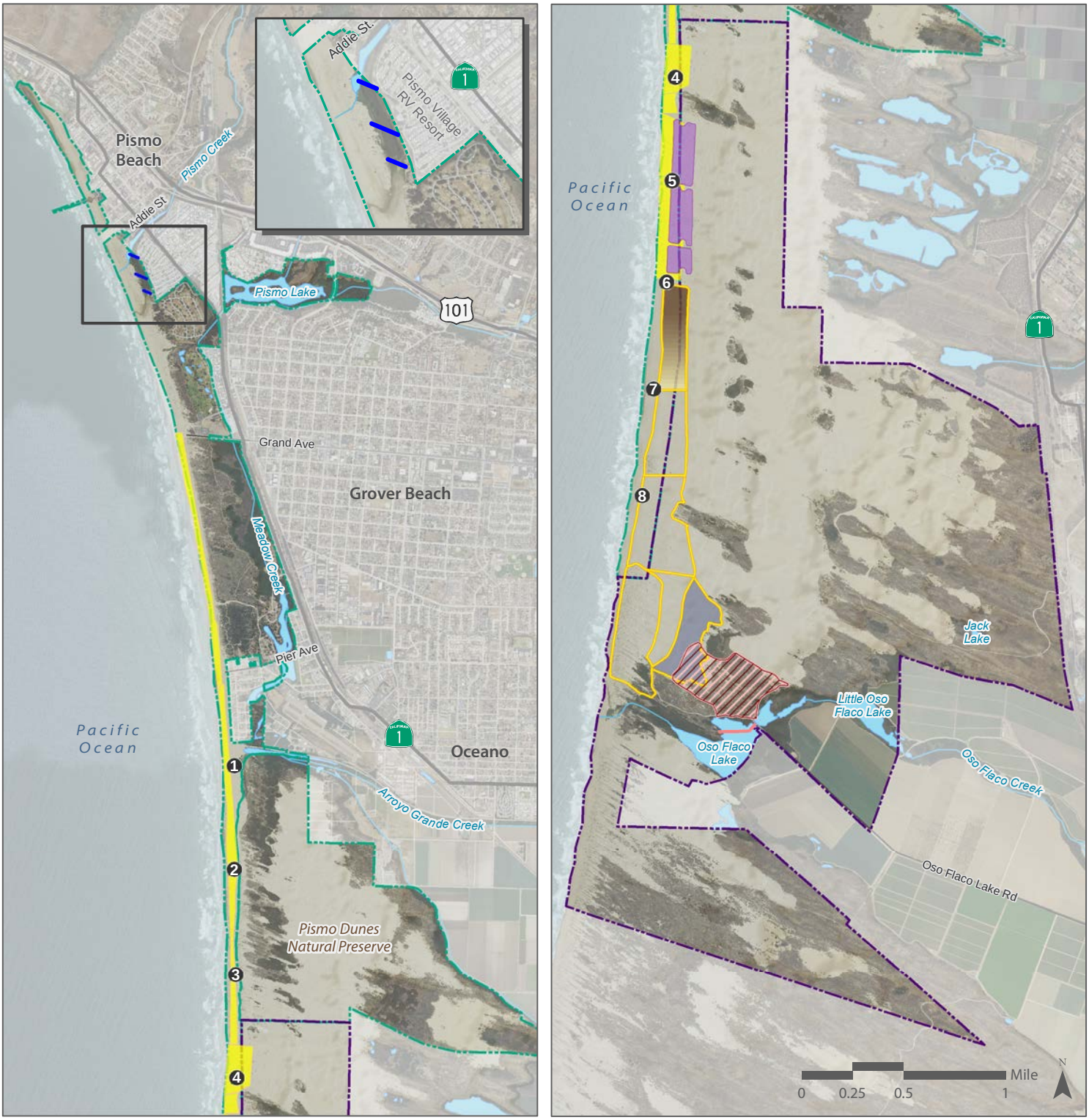
- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Waterbody
- Stream
- Highway
- Access road

MIG

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 7 Western Snowy Plover and California Least Tern Management

CDPR, Oceano Dunes District Habitat Conservation Plan EA



New Covered Activity

- CA-21 Mechanical trash removal*
- CA-41 Pismo Creek Estuary bridge options
- CA-42 Riding in 40 Acres*
- CA-44 PMRP, Foredune to be planted
- CA-48 Oso Flaco Lake boardwalk replacement
- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*

*Approximate location

Base Map Features

- Oceano Dunes SVRA
- Pismo State Beach
- Seasonal exclosure
- Marker post
- Waterbody
- Stream
- Highway
- Access road

Not mapped (location tbd): CA-12b SNPL Adult Banding, Chick and Egg Capture for Relocation to Captive Rearing; CA-44 PMRP additional planting of 4 acres; CA-49 Special Projects; and CA-52 CDPR Use of UAS. CA-49 Special Projects on up to 35 acres may occur anywhere excluding aquatic and vegetated areas.

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 8 New Covered Activity - ITP Authorization Required

New Covered Activity

- CA-28 Cable fence replacement
- CA-38 Grover Beach Lodge
- CA-43 Safety & Education Center replacement
- CA-44 PMRP, Track-out device
- CA-44 PMRP, Wind fencing converting to vegetation

Base Map Features

- Oceano Dunes SVRA
- Pismo State Beach
- Seasonal exclosure
- Marker post
- Waterbody
- Stream
- Highway
- Access road

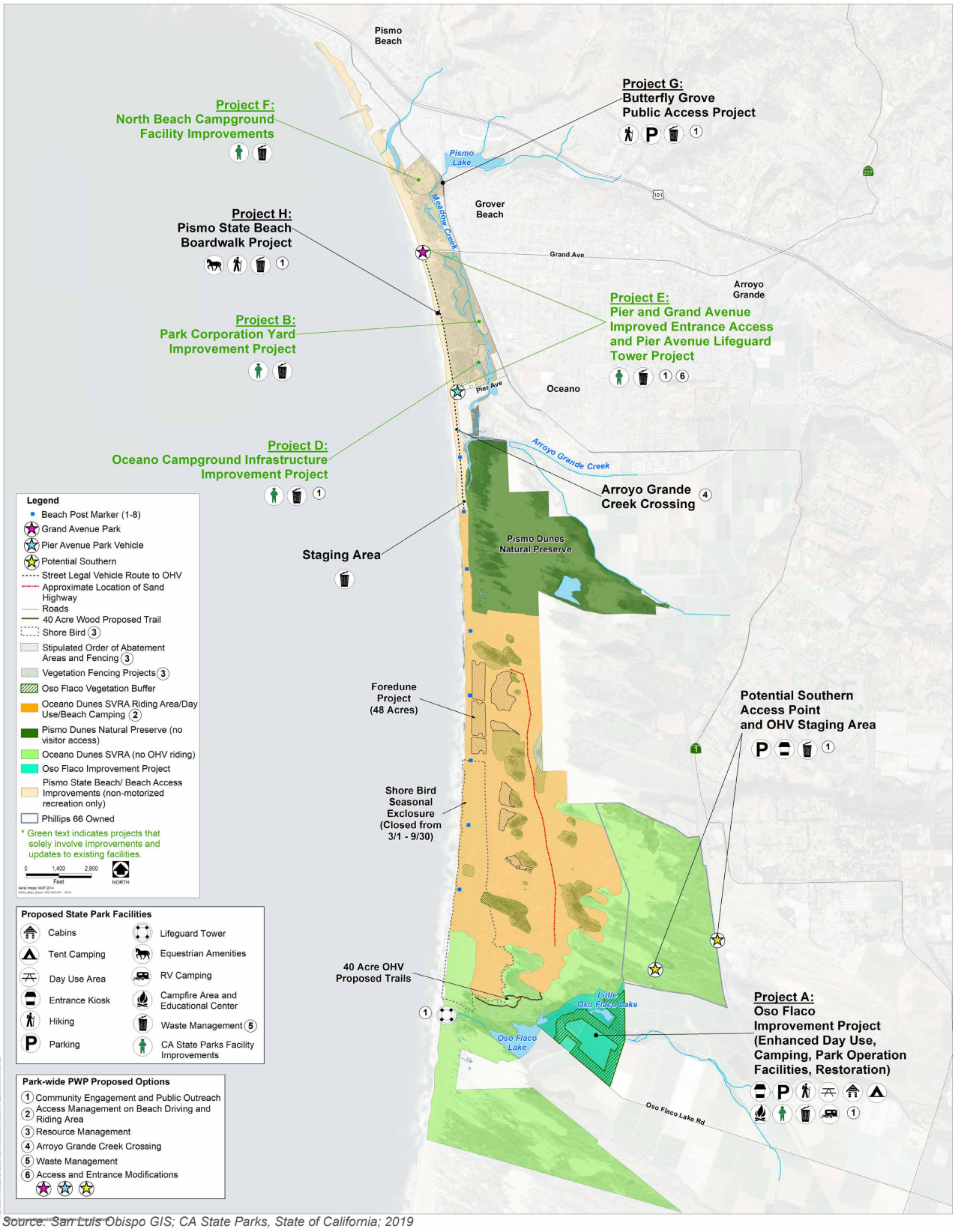
Not mapped (location tbd): CA-15 Propagation and Outplanting of Listed Plant Species; CA-44 Dust Control Activities: backdune vegetation planting of 270 acres.

MIG

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 9 New Covered Activity - ITP Authorization Not Required

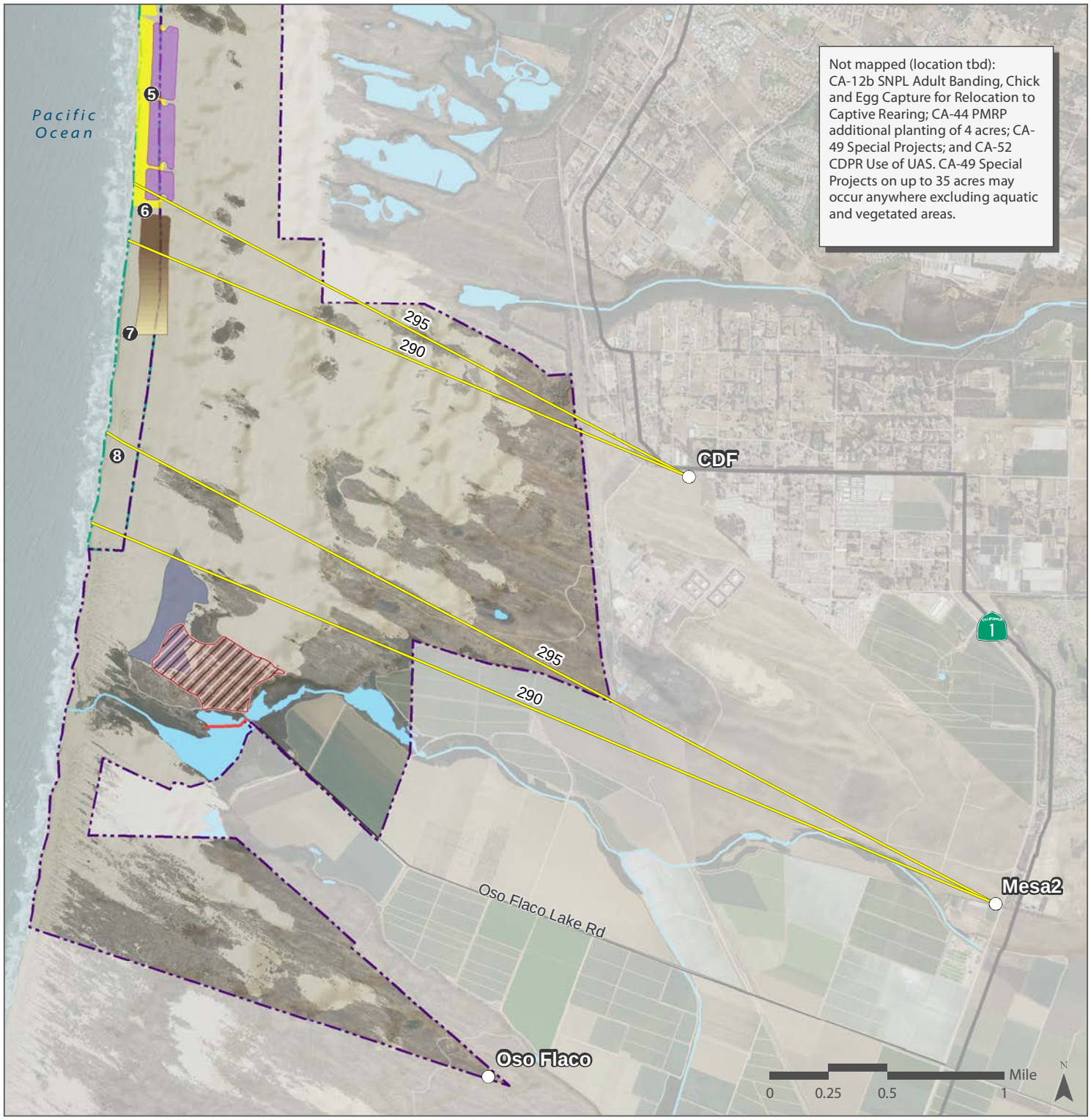
CDPR, Oceano Dunes District Habitat Conservation Plan EA



Source: San Luis Obispo GIS; CA State Parks, State of California; 2019

Figure 10 Cumulative Projects from PWP Scoping Meetings

CDPR, Oceano Dunes District Habitat Conservation Plan EA



Air Quality Features

- Existing air quality monitor
- Degree line

New Covered Activity

- CA-21 Mechanical trash removal*
- CA-42 Riding in 40 Acres *
- CA-44 PMRP, Foredune to be planted
- CA-48 Oso Flaco Lake boardwalk replacement
- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*

*Approximate location

Base Map Features

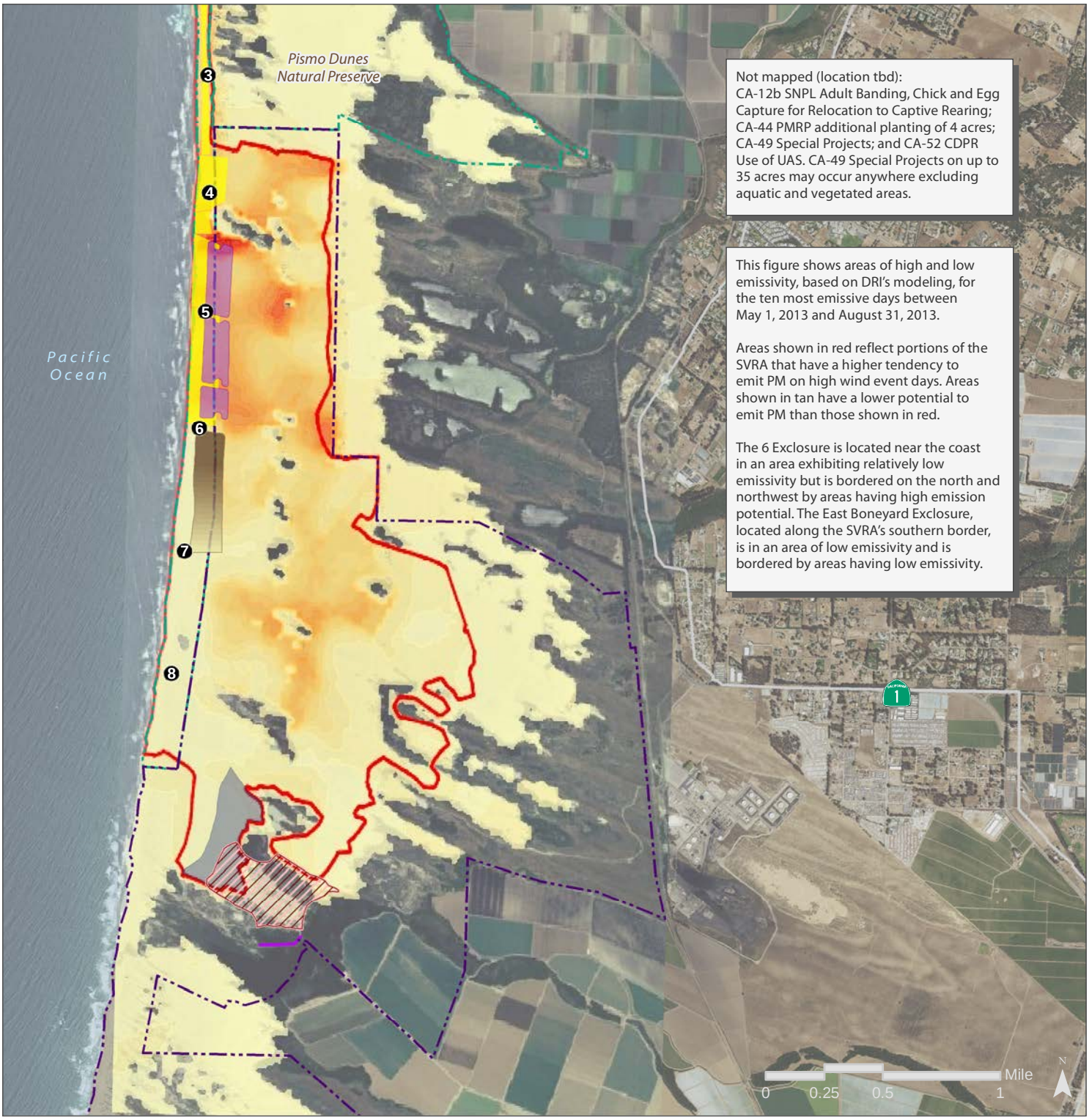
- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Waterbody
- Stream
- Highway
- Access road

MIG

September 2020
Source: CGS, 2013
ARB, 2018; CDPR, 2020
CGS, 2013; MIG, 2020

Figure 11 Source Area Upwind of CDF and Mesa2 (290° and 295°)

CDPR, Oceano Dunes District Habitat Conservation Plan EA



Oceano Dunes SVRA Emissions

0.0 6.0 12.0 18.0 24.0 30.0 36.0 42.0

Emissions x 10^3 [Tons/day]

New Covered Activities

- CA-21 Mechanical trash removal*
- CA-42 Riding in 40 Acres*
- CA-44 PMRP, Foredune to be planted
- CA-48 Oso Flaco Lake boardwalk replacement

*Approximate location

- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*

Base Map Features

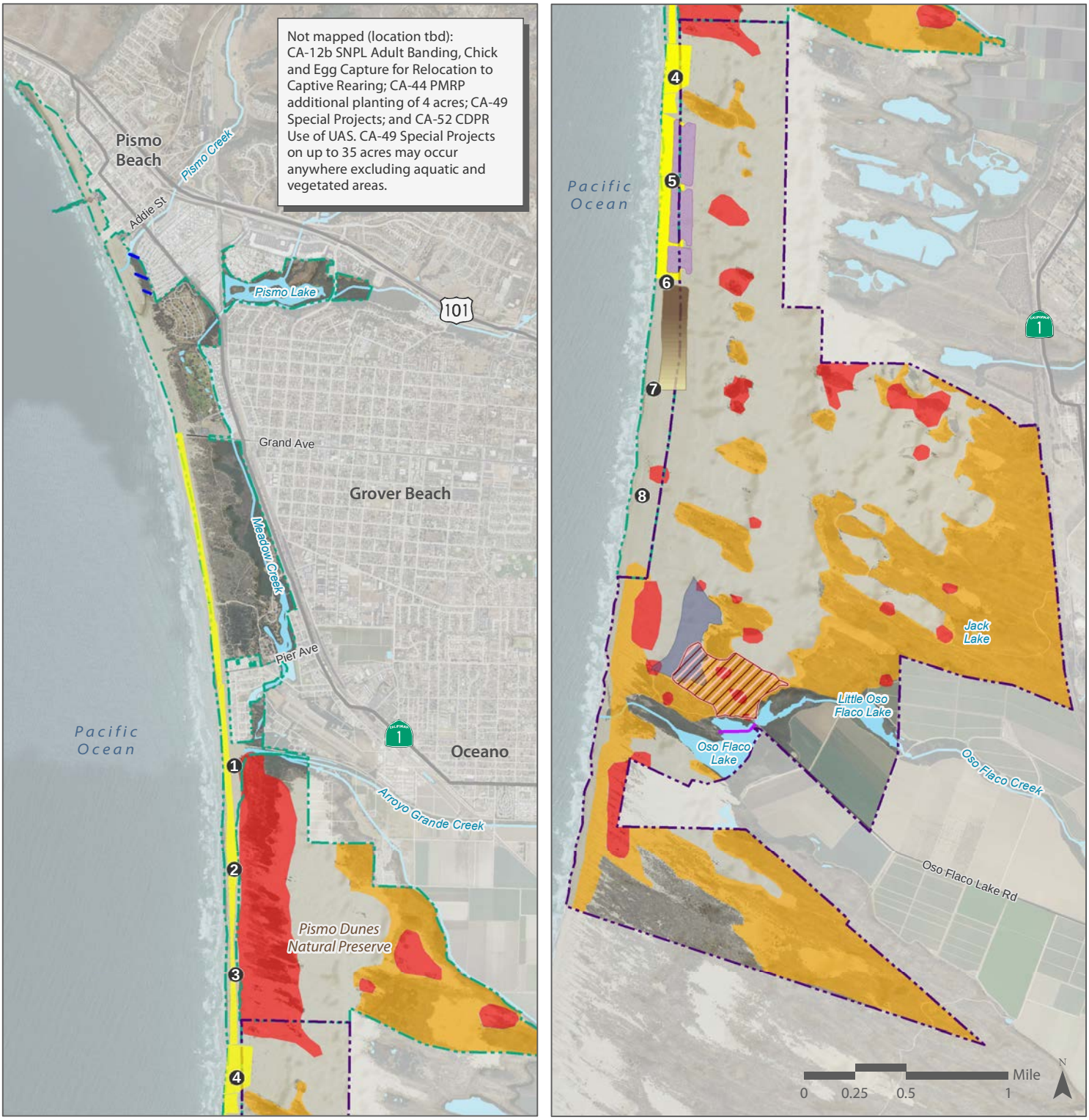
- Oceano Dunes SVRA
- Pismo State Beach
- Oceano Dunes SVRA open riding area boundary
- Marker post
- Highway

MIG

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 12 Oceano Dunes SVRA Heat Mapping

CDPR, Oceano Dunes District Habitat Conservation Plan EA



Senstitive Cultural Resource Areas

- Medium Cultural Resource Sensitivity
- High Cultural Resource Sensitivity

New Covered Activity

- CA-21 Mechanical trash removal*
- CA-41 Pismo Creek Estuary bridge options
- CA-42 Riding in 40 Acres*
- CA-44 PMRP, Foredune to be planted
- CA-48 Oso Flaco Lake boardwalk replacement
- CA-50 6 Exclosure reduction*
- CA-50 Boneyard Exclosure reduction*

*Approximate location

Base Map Features

- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Waterbody
- Stream
- Highway
- Access road

September 2020
Source: CDPR, 2020; MIG, 2020

Figure 13 Sensitive Cultural Resource Areas

CDPR, Oceano Dunes District Habitat Conservation Plan EA

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Appendix A: HCP Biological Goals and Objectives

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Appendix A: HCP Biological Goals and Objectives

Summary List of HCP Biological 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 CDPR target of 155 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.
Goal 2: Minimize conflicts between park users, park operations, and SNPL through a combination of 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 these 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 SNPL and their 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 5-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 1.0 fledgling 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 SNPL through a combination of avoidance and minimization measures and enforcement of park rules and regulations.
Objective 2.1: Provide 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 these 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.
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 encroachment, close suitable habitat with symbolic fencing and signage, including Pismo Creek Lagoon, Pismo Lake, Meadow Creek, Carpenter Creek, Oceano (Meadow Creek) Lagoon, Arroyo Grande Creek, Arroyo Grande Creek Lagoon, Oso Flaco Lake, Oso Flaco Creek, and numerous un-named 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.
Goal 2: Manage invasive plants and animals to enhance suitable habitat and protect all CRLF life stages.
Objective 2.1: Control invasive aquatic predators of CRLF.
Objective 2.2: Enhance CRLF habitat by managing aquatic vegetation.
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 and the Regional Water Quality Control Board (RWQCB), 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.
Tidewater Goby
Goal 1: Minimize the effects of park operations, park visitor activities, and management activities on tidewater goby habitat.
Objective 1.1: Protect tidewater goby habitat by closing informal trails in and adjacent to occupied and potential habitat. Informal trails found within riparian habitat adjacent to Arroyo Grande and Pismo Creeks will be blocked and restored to original conditions.
Objective 1.2: Protect tidewater goby habitat in Arroyo Grande Creek by enforcing crossing guidelines.
Objective 1.3: Protect tidewater goby habitat in Pismo Creek Lagoon by pursuing installation of proposed improvements to Pismo Creek.
Goal 2: Manage invasive animals to protect all life stages of tidewater goby.
Objective 2.1: Control invasive aquatic predators of tidewater goby.

Goal 3: Minimize the effects of upstream water quality and quantity to tidewater goby 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 Oceano Dunes District whose activities affect water quality and quantity in the HCP area, working in conjunction with the RWQCB.
Goal 4: Evaluate the suitability of potential tidewater goby habitat in the HCP area.
Objective 4.1: CDPR will 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: Informal trails in and adjacent to listed plant species habitats will be closed and restored to original conditions.
Goal 2: Manage invasive plants to protect listed plant species habitat.
Objective 2.1: Control non-native invasive plant species. Invasions of non-native plants create a serious threat to ecosystem function, native biological diversity, and many listed plant species.
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 at Oso Flaco Lake. The Oceano Dunes District will collaborate with willing upstream landowners and the RWQCB to improve water quality in the Oso Flaco drainage to improve habitat for marsh sandwort and Gambel's watercress. If a watershed assessment or other watershed-based program commences that could help the Oso Flaco watershed, then the Oceano Dunes District will evaluate the benefits of participation in such a program for the covered species.
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, including botanical gardens, 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.

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Appendix B: Considered and Rejected Alternatives

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Appendix B: Considered and Rejected Alternatives

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 and six Federally- and/or State-listed plant species occur or have the potential to occur within the HCP area. Take of federally-listed animal species is prohibited by FESA (EA section 1.1). 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. Of these 10 species, CLTE, SNPL, and listed plants are most likely to be impacted by existing visitor uses or park operations. The greatest risk of impact (moderate to high) to SNPL and CLTE is from motorized recreation (CA-1), camping (CA-2), concentrated visitor use during holidays (CA-10) and special events (CA-11), and conservation activities (CA-12). The greatest risk to certain listed plants is from routine riparian maintenance (CA-26; potential impacts to marsh sandwort and Gambel's watercress) and special projects (CA-49; potential loss of La Graciosa thistle, beach spectaclepod, and/or surf thistle habitat). Other than modifications to the Southern Exclosure boundaries (CA-50), the proposed HCP would not alter the management of these covered activities and would not add to the existing risk of impact or take caused by these covered activities. The proposed HCP would introduce new but minimal risk of impact or take to CLTE and SNPL from mechanical trash removal (CA-21). These new covered activities would not increase risk of impact to listed plants.

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 755 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 have occurred from vehicle strike, visitor disturbance, and from conservation activity (HCP EIR Table 6-8 and Table 6-9). Take can occur year-round and is not limited to the protected nesting habitat after fencing is removed. There have been no documented incidents of CRLF or tidewater goby take. 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 vehicle use south of Grand Avenue would likely be required in order to avoid habitat disturbance and the potential for take of CLTE and SNPL from vehicle strike (HCP Maps 11 and Map 13). 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. Under this alternative, the loss of shoreline access for vehicle recreation, camping, and other visitor uses would be permanent, which is incompatible with the recreational purpose of the SVRA and CDPR's legislative mandate under PRC section 5090.01 et seq. as described in EA section 1.2. Given the success of the conservation program, complete closure is not necessary to conserve and improve resource values while still allowing for OHV, camping, and other recreation.

If a new access to the southern portion of the park is developed, it is possible that vehicle recreation in approximately 950 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, prior studies determined southern access would have greater impacts than the current vehicle shoreline access from the north. In the future, new access options may be identified that reduce these effects. Regardless, this option would still eliminate motorized shoreline access, including camping.

CDPR implements a resource conservation program for Federal and State species described in the HCP (CAs 12 through 19), which is currently permitted via 10(a)(1)(A) recovery permits. These activities are designed to protect, monitor, and enhance the species and their habitat. There is inadvertent risk of take associated with some of these activities that can be minimized but not completely avoided. A true “no take” alternative would reduce or eliminate conservation activities such as habitat fencing, chick-banding, dipnet surveys, etc. The value of these activities to species conservation far outweigh the take risk. The discontinuation of conservation program activities in order to avoid take associated with those activities is incompatible with park conservation goals and protection of natural resources. Given the importance of the conservation program, the SNPL and CLTE conservation and banding program could potentially continue under a recovery permit; however, the mechanism for funding the program if the HCP area no longer functioned as an SVRA is unknown.

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. The severity of reduction in recreation opportunity and resource conservation effort that would have to occur in order to eliminate the possibility of take makes this alternative infeasible and rejected from further consideration.

Off-site Mitigation in lieu of Nesting Exclosures

Off-site mitigation in lieu of nesting exclosures is a management strategy that redirects 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 in levels that would offset the loss of nesting habitat acreage and take impacts from less restricted park recreation. This strategy is an alternate approach to the park’s existing conservation program, which seasonally closes off over 350 acres of highly productive on-site primary SNPL and CLTE nesting habitat.

An off-site conservation approach does not reduce the potential for take within the HCP area associated with the covered activities. 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 CLTE and SNPL at this location could reduce its contribution to species recovery units.

To create an off-site mitigation area in lieu of 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 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. 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 can be replicated off-site. This off-site conservation location would introduce new risk to species conservation and new investment costs to CDPR for property search, technical studies, and property management or partnership with the landowner or resource agency. 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.

Changes in Oceano Dunes SVRA Access

Install Bridge Over Arroyo Grande Creek

Motorized 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. The purpose of this alternative is to maintain vehicle access across the creek while eliminating potential impacts to tidewater goby and reducing any potential health and safety risks associated with the water crossing. It would enable continued access to the SVRA when creek flows have become unsafe for crossing, thereby causing closure of the SVRA south of the creek. This alternative has been previously studied by CDPR (Condor 2006) and was determined to not be viable.

Furthermore, the alternative would not reduce the potential for take of SNPL and CLTE associated with park visitor use and operations. It is rejected from further consideration as an access alternative in the HCP.

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 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 presents 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 access was feasible but would involve greater impacts than the current impact of using the existing northern access route from Pier

Avenue. For this reason, an alternate access route to Oceano Dunes SVRA was rejected from further consideration as an access alternative in the HCP.

CDPR is preparing a PWP that may consider alternate southern access to the park (see EIR section 3.3). If alternate access becomes feasible, it could be included in the HCP through an amendment.

Restricted Riding Times

Night Riding Closure

Motorized vehicle use at Oceano Dunes SVRA may occur at any time of day or night without riding hour restrictions. 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. Nighttime riding is not prevalent in the HCP area, and the study was inconclusive regarding an elevated risk of take from nighttime riding. Prohibiting nighttime riding is unlikely to substantially reduce or eliminate potential take of CLTE and SNPL from motor vehicle recreation or resolve CDPR's need for authorized take pursuant to an ITP. Further CDPR monitoring and enforcement of a nighttime riding prohibition may add to an administrative cost without gaining a corresponding reduction in take. For these reasons, the nighttime riding restriction is rejected from further consideration.

Seasonal Closures 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 park, this alternative would close large portions or all of the 1,305-acre riding area in the SVRA during the SNPL and CLTE breeding seasonal to motorized recreation. 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 for 7 months out of the year to provide protected nesting habitat for CLTE and SNPL. The Southern Exclosure encompasses roughly 1.5 miles of shoreline and protects the most valuable and productive habitat within the HCP area. Temporal closure of the entire riding area to motorized recreation would unnecessarily prohibit public access on 952 acres of non-primary nesting and foraging habitat where take is less likely to occur. Given the year-round presence of SNPL and their wide dispersal during non-breeding months, a seasonal closure of the park to motorized recreation would not completely avoid take and would not resolve the need for a take permit. Similar to the No Take Alternative, the impact of the Seasonal Closure to Motorized Recreation Alternative upon recreation access is substantial. Furthermore, this alternative fails to make the fullest appropriate public use of the vehicular recreational opportunities present because it is unnecessarily restrictive and thus conflicts with PRC section 5090.43(a) (EA section 1.2). The Proposed Action would continue to provide for the conservation and improvement of natural resource values over time. 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 was rejected from further consideration.

Reduced Vehicle Use Limits

Reduced vehicle use in the SVRA could reduce the risk for take of SNPL and CLTE associated with motorized recreation; however, the reduction in risk is difficult to assess and may not result in actual reduced take given that the conservation program already has led to very limited take of SNPL and almost eliminated CLTE take. Success notwithstanding, risk of take would not be eliminated since motorized recreation could still occur in the SVRA where SNPL and CLTE exist. This scenario would not provide a meaningful reduction in take and could have adverse impacts to motorized recreation. Therefore, it is rejected from further consideration.

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Oceano Dunes District
Habitat Conservation Plan EA

Appendix C: Affected Environment

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Appendix C: Affected Environment

Fish and Wildlife

Common 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 over a dozen species of fish; 28 species of reptiles and amphibians; 19 species of mammals, including marine mammals; and numerous bird species (CDPR 2017). Over 200 species of birds live in or migrate through the Guadalupe-Nipomo Dunes Complex. Common wildlife observed in the HCP area are discussed below.

Beach and Dune Habitat Species

Beach and dune habitats comprise approximately 4,000 acres of the HCP area. 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 (*Catoptrophorus semipalmatus*), marbled godwits (*Limosa fedoa*), and sanderlings (*Calidris alba*) search for food in the sand. Seaweed wrack 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 to roost or loaf.

Riparian Habitat Species

Riparian habitat, with its constantly available water and dense, diverse vegetation of trees, shrubs, and herbs provide abundant food and cover to many wildlife species. Riparian habitat comprises approximately 300 acres within the HCP area. The moist riparian area produces abundant insect life, food for many insectivorous amphibians, birds, and mammals such as the Pacific treefrog (*Pseudacris [=Hyla] regilla*), western skink (*Eumeces skiltonianus*), Wilson's warbler (*Wilsonia 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 dusky-footed woodrat (*Neotoma fuscipes*), 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*).

Aquatic Habitat Species

Freshwater creeks and lakes provide habitat for aquatic macroinvertebrates which, along with vegetative detritus in the form of leaf litter and woody debris, form the base of the

stream food chain. Open water comprises approximately 100 acres of the HCP area. 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 WPT. Ephemeral and intermittent tributary streams may provide important habitat for western toad (*Bufo boreas*) and western spadefoot toad (*Spea hammondii*). A high variety of insects, birds, amphibians, reptiles, and mammals utilize the riparian vegetation associated with freshwater aquatic habitat.

Other Habitat Species

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

Special-Status Species Considered

Special-status fish and wildlife are those 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. Special-status animal species occurring in the HCP area and potentially affected meet 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 and Game Code §2050 et seq.)
- Listed as a Fully Protected Species (Fish and Game Code §§3511, 4700, 5050, and 5515)
- Listed as a CSSC on CDFW's Special Animals list (CDFW 2018)
- Listed on CDFW's Watchlist
- FWS Birds of Conservation Concern (BCC) (USFWS 2008)

Special-status fish and wildlife species with the potential to occur within a 5-mile radius of the HCP area are presented below and in HCP EIR Appendix C. The list was compiled based on information from Service, CDPR, and California Natural Diversity Database (CNDDB). A total of 52 animal species have been recorded within the HCP area (Table C-1). Of these, 10 animal species have low or no potential for impact and are not considered further in this EA. The remaining 42 species (1 fish, 5 amphibians/reptiles, 32 birds, and 4 mammals) have a moderate to high potential for impact and are further evaluated in EA chapter 4. See HCP EIR Appendix C for a description of species considered in this analysis.
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Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
Invertebrates				
monarch butterfly *Danaus plexippus plexippus*	Under review[2]	Known to overwinter in numbers in the tens of thousands to hundreds of thousands in the eucalyptus and Monterey cypress tree grove at Pismo State Beach adjacent to the North Beach Campground. May roost elsewhere, within eucalyptus groves and Monterey cypress forest. Other areas containing these trees include the Oceano Campground and the vegetated islands; however, these areas may not provide enough wind cover to provide suitable winter roosts	None. 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 area locations where this species may occur. Any activities within the Monarch Grove outside the winter season are conducted to improve monarch overwintering habitat.	None. Covered activities will not occur within the overwintering period for monarch in the tree grove at Pismo State Beach, and removal of suitable roost trees is not proposed in other HCP locations where this species could occur. Any activities within the Monarch Grove outside the winter season will be conducted to improve monarch overwintering habitat.
Fish				
steelhead - south/central California coast ESU *Oncorhynchus mykiss irideus*	FT	Known to occur in Pismo Creek and Arroyo Grande Creek from CDPR fish surveys and CNDDB records. This species is localized to these creek systems and their confluences with the Pacific Ocean.	Low. Letter from National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) to CDPR dated December 23, 2008, found that unauthorized steelhead take from 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.	None. The HCP does not propose new covered activities in suitable habitat for steelhead.
tidewater goby[3] *Eucyclogobius newberryi*	FE, CSSC	Critical habitat present in the HCP area. Known to occur in Arroyo Grande Creek, Pismo Creek, Carpenter Creek, Oceano (Meadow Creek) Lagoon, Oso Flaco Creek, and Pismo Creek.	Moderate. Covered activities occur in suitable habitat areas and could impact individuals or nest burrows.	None. The HCP does not propose new covered activities in suitable habitat for tidewater goby.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area				
Species	**Listing Status[1]**	**Occurrence**	**Potential for Impact from Existing Covered Activities Proposed for ITP Authorization**	**Potential for Impact from New Covered Activities Proposed for ITP Authorization**
Amphibians/Reptiles				
California red-legged frog *Rana draytonii*	FT, CSSC	Observed in Arroyo Grande Creek and in the Oso Flaco Lake complex, including Oso Flaco Lake, Little Oso Flaco Lake and Little Oso Flaco Creek. Also found nearby in Jack Lake, Finger Lake, Snake Lake, and Lettuce Lake. May use other water features throughout the HCP area.	Moderate. Covered activities occur in suitable aquatic habitat areas and could impact suitable habitat, eggs, tadpoles, or adults/juveniles. Impacts in upland habitat are expected to be rare, although dispersing individuals could be injured or killed.	Moderate. The HCP proposes new covered activities in suitable aquatic habitat at Oso Flaco Lake. The HCP proposes new covered activities in suitable upland habitat and, although unlikely, could impact dispersing individuals.
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.	Low. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	None. The HCP does not propose new covered activities in suitable habitat for coast range newt.
Coast (California) horned lizard *Phrynosoma coronatum*	CSSC	Documented in 2006 along the access road to Little Oso Flaco Lake. Anecdotal records have been reported in various vegetation islands within the HCP area. May utilize a variety of habitat locations within the HCP area including the vegetation islands and the western interface of sand and silver dune lupine-mock heather scrub habitat.	Moderate. Covered activities occur in suitable habitat areas and could impact individuals or habitat.	Moderate. The HCP proposes new covered activities in suitable upland habitat and could impact dispersing individuals.
silvery legless lizard *Anniella pulchra*	CSSC	Observed in the HCP area in vegetation islands, Oceano Campground, and at Oso Flaco Lake. Documented in 2006 along the access road to Little Oso Flaco Lake. Also observed nearby at Little Oso Flaco Lake, Jack Lake, and near Lettuce Lake. Similar habitat near freshwater within the HCP area may also be used by this species.	Moderate. Covered activities occur in suitable habitat areas and could impact individuals or habitat.	Moderate. The HCP proposes new covered activities in suitable upland habitat and could impact dispersing individuals.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
two-striped garter snake *Thamnophis hammondii*	CSSC	Infrequently observed at Oso Flaco Lake. Also observed in September 2016 within the Chevron property just south of the HCP area. Suitable habitat also present within the HCP area at Arroyo Grande Creek.	Low. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. The HCP proposes new covered activities in suitable aquatic habitat at Oso Flaco Lake; however, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.
Western spadefoot toad *Spea hammondii*	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 and within the Eucalyptus South vegetation island in 2011. Other ephemeral water sources within the HCP area may be used by this species for breeding and vegetation islands may be used during dispersal and winter.	Moderate. Covered activities occur in suitable habitat areas and could impact individuals in burrows or within aquatic habitat.	Low. Although new proposed covered activities occur in suitable upland dispersal habitat areas, this species is likely rare in the HCP area. As a result, potential for new proposed covered activities to impact this species is very low.
western pond turtle *Emys marmorata*	CSSC	Known to occur in Oso Flaco Lake and Arroyo Grande Creek. Other freshwater habitat within the HCP area may be suitable.	Moderate. Covered activities occur in suitable aquatic habitat areas and could impact individuals or habitat.	Moderate. The HCP proposes new covered activities in suitable aquatic habitat at Oso Flaco Lake.
Birds				
brant *Branta bernicla*	CSSC (wintering and staging)	HCP area is outside the known breeding range and is not known to be a significant staging site. This species has been observed at in the HCP area. Suitable wintering habitat includes Pismo Lagoon, Oso Flaco Lake, and Oceano Lagoon.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. No modification to wintering or staging habitat anticipated. No staging site impacts or staging habitat modification. Present only during wintering/migration. Short-term, temporary disturbance from	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. No modification to wintering or staging habitat anticipated. No staging site impacts or staging habitat modification.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
			covered activities in areas where they are passing through, foraging, or roosting.	HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
redhead *Aythya americana*	CSSC (nesting)	HCP area is outside the known breeding range. This species has been observed within the HCP area at Oso Flaco Lake as recently as October 2015. Suitable resting and foraging habitat includes large water bodies like Pismo Lagoon, Oso Flaco Lake, and Oceano Lagoon.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or resting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
common loon *Gavia immer*	CSSC (nesting)	The HCP area is outside the known breeding range. This species has been observed in the HCP area. Suitable roosting and foraging habitat include Pismo Lagoon, Oso Flaco Lake, and Oceano Lagoon.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
wood stork *Mycteria Americana*	CSSC	The HCP area is outside the known breeding range. Coastal occurrences are erratic, and wood storks observed along the Central California coast are likely vagrants. Documented at Oso Flaco Lake in 2011. Suitable roosting and foraging habitat includes Oso Flaco Lake, Pismo Lake, Pismo Lagoon, and Oceano Lagoon.	Low. No nesting impacts or nesting habitat modification. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. No nesting impacts or nesting habitat modification. Although new proposed covered activities occur in suitable habitat areas (i.e., Oso Flaco Lake), this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
double-crested cormorant *Phalacrocorax auritus*	SWL (nesting colony)	This species is a colony nester, and no nest colonies have been observed in the in the HCP area. In addition, a status assessment for this species conducted from 1998 to 2009 did not document nesting colonies within the HCP area. This species has been observed in the HCP area. Foraging, roosting, and loafing habitats are located anywhere near water bodies.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification expected. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
American white pelican *Pelecanus erythrorhynchos*	CSSC (nesting colony)	HCP area is outside the known breeding range. This species has been observed foraging in the HCP area and is frequently observed at Oso Flaco Lake. Suitable foraging and roosting habitat in the HCP area includes the beach, Pismo Creek, Pismo Lake, Meadow Creek, Oceano Lagoon, Arroyo Grande Creek, Oso Flaco Lakes, and Oso Flaco Creek.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
California brown pelican *Pelecanus occidentalis californicus*	CFP (nesting colony and communal roosts)	HCP area is outside the known breeding range. This species has been observed in the HCP area, including along the beach and at Oso Flaco Lake. Suitable roosting and loafing habitat includes the beach, undisturbed dunes, and Oso Flaco Lake. Roost habitat present offshore from the HCP area and along the shoreline.	Moderate (Short-term/Temporary Only)[4]. Roost habitat modification not expected. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. Roost habitat modification not expected. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
least bittern *Ixobrychus exilis*	CSSC, BCC	Has been observed as recently as December 2016 at Oso Flaco Lake and has been confirmed to breed at Oso Flaco	Moderate. Covered activities occur in suitable aquatic habitat areas and could	Moderate. The HCP proposes new covered activities in Oso Flaco, which is considered suitable aquatic

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
	(nesting)	Lake as recently as May 2016. Suitable breeding/nesting habitat may include dense emergent vegetation around Oso Flaco Lake, Pismo Lake, Oceano Lagoon, and Little Oso Flaco Lake.	impact eggs, chicks, and adults/juveniles.	habitat. Therefore, covered activities could impact eggs, chicks, and adults/juveniles.
osprey *Pandion haliaetus*	SWL (nesting)	The HCP area is outside the known breeding range. Ospreys have been 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.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas 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.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposed new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
white-tailed kite *Elanus leucurus*	CFP	Observed in the HCP area, including at Oso Flaco Lake, as recently as November 2016. Suitable nesting and wintering habitat includes 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.	Moderate. Covered activities occur in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from covered activities outside the breeding season in areas where they are passing through, foraging, or roosting.	Moderate. The HCP proposes new covered activities in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from new proposed covered activities could occur outside the breeding season in areas where they are passing through, foraging, or roosting.
golden eagle *Aquila chrysaetos*	CFP	Not known to nest within the HCP area. One golden eagle was observed flying within the HCP area in December 2015 at Oso Flaco Lake. Suitable nesting and perching habitat includes North Beach campground, Le Sage Rivera Golf Course, Oceano Campground, and isolated stands of Monterey pine forest, beach pine, and	Low. Although covered activities occur in suitable habitat areas, this species is likely rare migrant in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although the HCP proposes new covered activities in suitable habitat areas, this species is likely rare migrant in the HCP area. As a result, potential for new covered activities to impact this species is considered low.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
		coast live oak woodland located throughout the dunes. The open beach and agricultural areas provide suitable foraging habitat.		
northern harrier *Circus cyaneus*	CSSC	Regularly observed in HCP area, although only known to be a rare breeder in the Oso Flaco Lake area. Suitable nesting habitat includes Oso Flaco Lake, Little Oso Flaco Lake, Oceano Lagoon, and Pismo Lake.	Moderate. Covered activities occur in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from covered activities outside the breeding season in areas where they are passing through, foraging, or roosting. Northern harrier individuals are also removed as part of the SNPL and CLTE predator management program in the HCP area.	Moderate. The HCP proposes new covered activities in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from new proposed covered activities could occur outside the breeding season in areas where they are passing through, foraging, or roosting.
California black rail *Laterallus jamaicensis* ssp. *coturniculus*	ST, CFP, BCC	Historically observed nesting at Oso Flaco Lake in the HCP area; however, they have not been observed in the area since 1991. Suitable foraging and nesting habitat may include Oso Flaco Lake, Little Oso Flaco Lake, and Pismo Lake.	Low. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although new proposed covered activities will occur in Oso Flaco Lake, which is suitable habitat, this species is likely rare in the HCP area. As a result, potential for new covered activities to impact this species is considered low.
Western snowy plover *Charadrius nivosus nivosus*	FT, CSSC	Critical habitat present in the HCP area. Known to nest and winter in the HCP area. Suitable nesting and foraging habitat is located along the open sandy beach above the high tide line and within the foredunes.	High. Covered activities occur in suitable habitat areas. Impacts to breeding and wintering birds and breeding/wintering habitat modification known to occur.	High. The HCP proposes new covered activities in suitable habitat areas. Impacts to breeding and wintering birds and breeding/wintering habitat modification may occur.
long-billed curlew *Numenius americanus*	SWL, BCC (nesting)	The HCP area is outside the known breeding range. Suitable foraging and roosting habitat are located throughout HCP area along the beach.	Moderate (Short-term/Temporary Only)[4]. No nesting disturbance or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term,

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
			disturbance from covered activities in areas where they are passing through, foraging, or roosting.	temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	The HCP area is outside this species' known breeding range. This species has been observed just offshore and in near shore areas as recently as November 2010. Suitable foraging habitat within HCP area is located off-shore and at Pismo Lake, Pismo Lagoon, Oceano Lagoon, and at the mouths of Pismo Creek, Arroyo Grande Creek, and Oso Flaco Creek.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/migration. Short-term, temporary disturbance from covered activities offshore (e.g., kiteboarding, boating) in areas where they are passing through or foraging. No wintering or migration habitat modification.	None. The HCP does not propose new covered activities offshore or in other areas where marbled murrelet could be impacted.
California gull *Larus californicus*	SWL (nesting colony)	The HCP area is outside the known breeding range. May use a wide range of habitats within HCP area for foraging and roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
California least tern *Sterna antillarum browni*	FE, SE, CFP	Known to nest in the HCP area along the open, sandy beach above the high tide line. Most commonly observed foraging over the ocean, though they are 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. Not present in the HCP area outside the breeding season.	High. Covered activities occur in suitable habitat areas. Impacts to breeding birds and breeding habitat modification known to occur. No impacts to wintering birds or wintering habitat modification.	High. The HCP proposes new covered activities in suitable habitat areas. Impacts to breeding birds and breeding habitat modification may occur. No impacts to wintering birds or wintering habitat modification.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
black tern *Chidonias niger*	CSSC (nesting colony)	HCP area is outside the known breeding range. This species has been observed in the HCP area at Oso Flaco Lake as recently as 2009. May use a wide range of habitats within the HCP area for foraging and roosting habitat.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
elegant tern *Thalasseus elegans*	SWL (nesting colony)	HCP area is outside the known breeding range. Migrants may use the ocean shore and the banks of Pismo, Oceano, and Arroyo Grande Lagoons within the HCP area for roosting and/or foraging.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
black skimmer *Rynchops niger*	CSSC, BCC (nesting colony)	HCP area is outside the known breeding range. This species has been observed in the HCP area at the Arroyo Grande Creek mouth. May use the beaches and estuary areas throughout the HCP area as migrating and wintering habitat.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
yellow-billed cuckoo (western DPS) *Coccyzus americanus*	FT, SE, BCC (nesting)	The HCP area is outside the current known breeding range and wintering range for this species. Observed at Oso Flaco Lake in 1999 and at Oceano Lagoon in 2010. This species is likely only a rare migrant in the HCP area.	Low. No nesting impacts or nesting habitat modification. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered	Low. No nesting impacts or nesting habitat modification. Although the HCP proposes new covered activities in suitable habitat areas (e.g., Oso Flaco Lake), this species is likely rare in the HCP area. As a

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
			activities to impact this species is considered low.	result, potential for new covered activities to impact this species is considered low.
Western burrowing owl *Athene cunicularia*	CSSC, BCC	Known to utilize the HCP area during the winter and migration, but not known to breed within the area. Has been observed at Oso Flaco Lake, Phillips 66 Leasehold, Grand Avenue ramp, near the chemical toilets on the beach, and at Oceano Lagoon. May use a variety of habitats within the HCP area but is constricted to semi-compacted soils with low or no vegetation and available small-mammal burrows.	Moderate. No nesting impacts or nesting habitat modification. Covered activities occur in suitable habitat areas and could impact wintering individuals.	Moderate. No nesting impacts or nesting habitat modification. The HCP proposes new covered activities in suitable habitat areas and could impact wintering individuals.
Vaux's swift *Chaetura vauxi*	CSSC (nesting)	HCP area is outside the known breeding range. This species has been observed in the HCP area at Oso Flaco Lake as recently as May 2015.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance from covered activities in areas where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
black swift *Cypseloides niger*	CSSC, BCC (nesting)	HCP area is outside the known breeding range. This species has been observed in the HCP area at Oso Flaco Lake as recently as 2016.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
American peregrine falcon *Falco peregrinus* ssp. *anatum*	CFP	Regularly observed in flight and hunting in the HCP area. Not known to nest in the area and closest known nest is 20 miles away in the cliffs of Shell Beach. May use a variety of habitats within the HCP area for foraging. Limited suitable nesting habitat is present within the trees and other tall structures in the HCP area.	Moderate. No nesting impacts or nesting habitat modification expected. Covered activities occur in suitable habitat areas and could impact juveniles/adults.	Moderate. No nesting impacts or nesting habitat modification expected. The HCP proposes new covered activities in suitable habitat areas and could impact juveniles/adults.
olive-sided flycatcher *Contopus cooperi*	CSSC, BCC (nesting)	Uncommon breeder in San Luis Obispo County. Observed in the HCP area at Oso Flaco Lake, Meadow Creek, and Oceano Campground. May use a variety of habitats for foraging and/or roosting. Suitable breeding habitat present in the eucalyptus, oaks, and willows in the HCP area.	Low. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although new proposed covered activities will occur in Oso Flaco Lake, which is suitable habitat, this species is likely rare in the HCP area. As a result, potential for new covered activities to impact this species is considered low.
willow flycatcher *Empidonax trailii*	SE, BCC (nesting)	HCP area outside the known breeding range. Confirmed in the HCP area at Oso Flaco Lake and at Oceano Lagoon as recently as 2016. May use a variety of the willow thicket habitat within the HCP area during migration, especially the thickets on the banks and surrounding wetlands of Pismo, Oceano, and Arroyo Grande Lagoons, Oso Flaco and Little Oso Flaco Lakes.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during migration. Short-term, temporary disturbance where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
loggerhead shrike *Lanius ludovicianus*	CSSC, BCC (nesting)	Regularly observed in the HCP area and known to nest and forage in the area.	Moderate. Covered activities occur in suitable habitat areas and could impact eggs, chicks, and adults/juveniles during the breeding season. Breeding habitat modification not expected. Short-term, temporary disturbance from covered activities outside the breeding	Moderate. The HCP proposes new covered activities in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from new proposed covered activities could occur outside the breeding season in areas where

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
			season in areas where it is passing through or foraging. Loggerhead shrike individuals are also removed as part of the SNPL and CLTE predator management program in the HCP area.	they are passing through, foraging, or roosting.
California horned lark *Eremophila alpestris actia*	SWL	This species has been observed in the HCP area and the National Wildlife Refuge to the south of the HCP area. May nest and forage in a variety of low-grass, dune mat, dune scrub, or bare habitats within the HCP area.	Moderate. Covered activities occur in suitable habitat areas and could impact eggs, chicks, and adults/juveniles during the breeding season. Breeding habitat modification could occur. Short-term, temporary disturbance from covered activities outside the breeding season in areas where it is passing through or foraging.	Moderate. The HCP proposes new covered activities in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from new proposed covered activities could occur outside the breeding season in areas where they are passing through, foraging, or roosting.
bank swallow *Riparia riparia*	ST (nesting)	HCP area is outside the known breeding range. This species has been confirmed foraging in the HCP area as recently as 2016. Foraging habitat occurs at Arroyo Grande Creek, Oceano Lagoon, Oso Flaco Lake, Little Oso Flaco Lake, Oso Flaco Creek, Pismo Lake, Pismo Creek.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
Lucy's warbler *Oreothlypis luciae*	CSSC, BCC (nesting)	HCP area is outside the known breeding range. This species has been confirmed foraging in the HCP area at Oso Flaco Lake and Oceano Lagoon as recently as 2015.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
				are passing through, foraging, or roosting.
yellow warbler *Setophaga petechia*	CSSC, BCC (nesting)	Documented in the HCP area at Arroyo Grande Creek and Oso Flaco Lake. Also found nearby at Jack Lake and Little Oso Flaco Lake. Marginal foraging and nesting habitat are present.	Moderate. Covered activities occur in suitable habitat areas and could impact eggs, chicks, and juveniles/adults. Short-term, temporary disturbance from covered activities outside the breeding season in areas where it is passing through or foraging.	Moderate. The HCP proposes new covered activities in suitable habitat areas and could impact eggs, chicks, and adults/juveniles. Short-term, temporary disturbance from new proposed covered activities could occur outside the breeding season in areas where they are passing through, foraging, or roosting.
yellow-breasted chat *Icteria virens*	CSSC (nesting)	The species' range has not been documented to extend to the coast along Arroyo Grande Creek, but has been documented along Arroyo Grande Creek above Lopez Dam. Confirmed in the HCP area at the Oso Flaco Maps Station in 2000 and at Oso Flaco Lake in 2015. Nesting in the area is not confirmed and may not occur, but this species has infrequently been observed singing in the HCP area. May use habitats along Arroyo Grande and Oso Flaco Creeks for nesting and foraging.	Low. Although covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although the HCP proposes new covered activities in suitable habitat areas (e.g., Oso Flaco Lake), this species is likely rare in the HCP area. As a result, potential for new covered activities to impact this species is considered low.
summer tanager *Piranga rubra*	CSSC (nesting)	HCP area is outside the known breeding range. This species was observed in the HCP area at Oso Flaco Lake as recently as December 2016. May use a wide variety of habitats within the HCP area for wintering habitat.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
tricolored blackbird *Agelaius tricolor*	ST, BCC (nesting)	Not known to nest in the HCP area. Confirmed in the HCP area at Oso Flaco Lake as recently as August 2016. No nesting documented in the area. May use habitat adjacent to Arroyo Grande and Oso Flaco Creeks and Oso Flaco Lake for foraging.	Moderate (Short-term/Temporary Only)[4]. Nesting impacts or nesting habitat modification not expected. Present only during wintering/ migration. Short-term, temporary disturbance where they are passing through or foraging.	Moderate (Short-term/Temporary Only)[4]. Nesting impacts or nesting habitat modification not expected. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
yellow-headed blackbird *Xanthocephalus xanthocephalus*	CSSC (nesting)	HCP area is outside the known breeding range. Confirmed in the HCP area near Oceano Lagoon and at Oso Flaco lake as recently as 2016. This species may utilize open areas and emergent vegetation within the HCP area for foraging and/or winter roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. Present only during wintering/ migration. Short-term, temporary disturbance where they are passing through, foraging, or roosting.	Moderate (Short-term/Temporary Only)[4]. No nesting impacts or nesting habitat modification. HCP proposes new covered activities that could have short-term, temporary impacts on wintering/migrating birds where they are passing through, foraging, or roosting.
Mammals				
pallid bat *Antrozous pallidus*	CSSC	Documented during passive acoustic surveys at Oceano Lagoon on June 2017. May use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.	Moderate. Covered activities in suitable habitat areas, which could impact roost locations. Impacts to migrating and foraging bats not expected since they are typically active at night.	None. The HCP does not propose new covered activities that would directly impact suitable habitat for pallid bat.
Townsend's big-eared bat *Corynorhinus townsendii*	FC, SC, CSSC	Documented during passive acoustic surveys at Oceano Lagoon on June 2017. May use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.	Moderate. Covered activities in suitable habitat areas, which could impact roost locations. Impacts to migrating and foraging bats not expected since they are typically active at night.	None. The HCP does not propose new covered activities that will directly impact suitable habitat for Townsend big-eared bat.

Table C-1. Special-status Animal Species Present in the Oceano Dunes District HCP Area

Species	Listing Status[1]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
Western red bat *Lasiurus blossevillii*	CSSC	Documented during passive acoustic surveys at Oceano Lagoon on June 2017. May use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.	Moderate. Covered activities in suitable habitat areas, which could impact roost locations. Impacts to migrating and foraging bats not expected since they are typically active at night.	None. The HCP does not propose new covered activities that will directly impact suitable habitat for western red bat.
Southern sea otter *Enhydra lutris nereis*	FT, CFP	Southern sea otters are occasionally seen offshore of the HCP area.	Low. Present offshore only. Covered activities (e.g., boating and kiteboarding) are unlikely to occur in areas where this species is foraging or resting.	None. The HCP does not propose new covered activities in suitable habitat for sea otter.
American badger *Taxidea taxus*	CSSC	Has been observed in vegetation islands, and nearby Phillips 66 leasehold. More likely to use the habitat in the southern portion of the HCP area that is farther away from urban areas and connected to other open space.	Moderate. Covered activities occur in suitable habitat areas and could impact individuals within dens.	Moderate. The HCP proposes new covered activities in suitable habitat areas and could impact individuals within dens.

[1]Listing Status Key:
FE – Federal Endangered
FT – Federal Threatened
FC – Candidate for Federal listing
BCC – USFWS Birds of Conservation Concern
SE – State Endangered
ST – State Threatened
SC – Candidate for State listing
CFP – California Fully Protected
CSSC – California Species of Special Concern
SWL- State Watch List

[2] Monarch butterfly is included on the California Department of Fish and Wildlife list of special animals and is currently under review by the U.S. Fish and Wildlife Service for listing under the Endangered Species Act. However, at this time, the species does not have a special-status designation. Despite this, Oceano Dunes District conducts surveys for overwintering monarchs within suitable habitat nearby the SVRA. No overwintering monarchs are present within Oceano Dunes SVRA.

[3] Species listed in bold are Covered Species in the Oceano Dunes District HCP.

[4] Any impacts to these special-status non-nesting migratory bird species would be localized, temporary, and/or short-term in duration. Impacts to these species would not require a permit or authorization. Impacts to these species are not included under the discussion of special-status species and are acknowledged in this EA under a separate heading titled Wintering/Migratory Birds.

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Wildlife Movement and Nurseries

The 5,005-acre HCP area includes ample area for wildlife movement 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 National Wildlife Refuge 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, including the HCP area, provides movement opportunities 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 for aquatic wildlife, including special-status species such as tidewater goby, steelhead, CRLF, and WPT. 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. Wildlife movement toward the east is restricted by developed agricultural and urban land.

The HCP area is assumed to contain wildlife corridors and nursery sites for each of the special-status wildlife species.

Vegetation

Physical Setting and Habitat Types

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. 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, Little Oso Flaco Lake, Pismo Lake, and occasional slack lakes in the dunes.

The habitats in the HCP area include open sandy beach, dune (fore- and back-), lake, freshwater stream, coastal lagoon, wetland, riparian, woodlands, agriculture, and developed. Forty-six vegetation alliances are described in the Vegetation Mapping Report following the Manual of California Vegetation (Sawyer, Keeler-Wolf and Evens 2009) classification system. These are summarized in the HCP EIR; more detail can be found in the Vegetation Mapping Report (MIG|TRA 2015).

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. 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 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.), Monterey cypress (*Callitropsis macrocarpa*), Torrey pine (*Pinus torreyana*), 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.

Invasive non-native plants include 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 Dunes Preserve is stabilized with these species, which form dense mats. As a result, these dunes are unusually tall compared to foredunes in the HCP area that are stabilized with native vegetation. 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*).

Vegetation alliances, defined by the dominant or co-dominant species, found in the entire HCP area are summarized in Table C-2 and shown on HCP Map 9.

Table C-2. Vegetation Types and Other Land Coverage Including Acreages within HCP Area

Vegetation Type	Acres	Percentage of total HCP area
Sand	2,499	49.93
Silver dune lupine - mock heather scrub	1,079	21.56
Arroyo willow thicket	370	7.39
European beach grass sward (invasive)	192	3.84
Dune mat	140	2.80
Native wetland alliances	136	2.72
Agriculture	134	2.68
Other non-native alliances	120	2.40
Other native upland alliances	89	1.78
Perennial veldt grass stand (invasive)	88	1.76
Disturbed/developed	86	1.71

Table C-2. Vegetation Types and Other Land Coverage Including Acreages within HCP Area

Vegetation Type	Acres	Percentage of total HCP area
Open water	72	1.43
Total	**5,005**	**100.00**

The dominant vegetation in the HCP area is the native upland silver dune lupine – mock heather scrub alliance, which occurs primarily in the backdune. Arroyo willow (*Salix lasiolepis*) thickets are the second most prevalent alliance, also occurring in the backdune. Although arroyo willow is considered a wetland alliance, standing water or other wetland species are not associated with every arroyo willow stand. European beach grass swards, which occur in foredune uplands, are the third most prevalent alliance.

Special-Status Species Considered

Special-status plant species are those plants 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. Special-status plant species occurring in the HCP area meet 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 and Game Code §2050 et seq.)
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.).
- 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 CNPS and CDFW to be “rare, threatened, or endangered in California” (Ranks 1A, 1B, and 2; CNPS 2017, CDFW 2017)
    - 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, California Rare Plant Rank (CRPR) 3 and 4 species were considered locally significant for the purposes of this report.[8]

Special-status plant species with the potential to occur within the HCP area are presented in Table C-3. The potential for occurrence was based on the habitat requirements of each species relative to the habitat conditions documented in the HCP area. If there are no documented occurrences within 5 miles of the HCP area and/or there is clearly no suitable

[8] 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.

habitat present in the HCP area or the HCP area is clearly outside the expected range of the species, the species was eliminated from consideration and was not included in HCP EA Appendix C. The list was compiled based on information from the Service, CDPR, CNDDB, and the CNPS Rate Plant Inventory. In addition, the list used information from the Pismo State Beach and Oceano Dunes Recreation Area Vegetation Mapping Report (MIG|TRA 2015), which provides details on a comprehensive vegetation survey that was conducted from September through December 2012 by TRA Environmental Sciences, Inc. and CDPR staff.

A total of 33 special-status plant species have been recorded within the HCP area or have a potential to occur based on the presence of suitable habitat as well as known occurrences nearby. Of these 33 special-status plant species, eight special-status plant species were determined to have low potential to be impacted by covered activities because they are uncommon in the HCP area and/or have not been observed in the HCP area for over 10 years. Special-status plants with low potential to be impacted by covered activities are not discussed further in this document. A total of 25 special-status plants that have a moderate or high potential to be impacted by covered activities. See HCP EIR Appendix C for a description of species considered in this analysis.

Special-status plants considered in this analysis (Table C-3 and EA Appendix D) occur across six different vegetation communities in the HCP area as shown below. Some plants occur in multiple communities.

- **Dune Mat**: Beach spectaclepod, surf thistle, La Graciosa thistle, Blochman's groundsel, Blochman's leafy daisy, red sand verbena, dundelion, California spineflower, crisp monardella, coastal goosefoot, San Luis Obispo monardella, fuzzy prickly phlox, and sand almond.
- **Arroyo Willow Thicket**: La Graciosa thistle, sand almond, and suffrutescent wallflower.
- **Native Wetland Alliance**: Gambel's watercress, La Graciosa thistle, marsh sandwort, Hickman's popcornflower, and southwestern spiny rush.
- **Native Upland Alliance**: Blochman's groundsel, Nipomo Mesa lupine, red sand verbena, California spineflower, sand almond, Blochman's leafy daisy, crisp monardella, suffrutescent wallflower, California spineflower, Monterey coast paintbrush, Douglas' spineflower, coastal goosefoot, dune larkspur, fuzzy prickly phlox, Hickman's popcorn flower, Kellogg's horkelia, Nuttall's milkvetch, sand almond, San Luis Obispo monardella, and dunedelion.
- **Silver Dune Lupine-Mock Heather Scrub**: Nipomo Mesa lupine, La Graciosa thistle, sand mesa manzanita, red sand verbena, Blochman's leafy daisy, crisp monardella, suffrutescent wallflower, California spineflower, southwestern spiny rush, Monterey coast paintbrush, coastal goosefoot, dune larkspur, fuzzy prickly phlox, Hickman's popcorn flower, Nuttall's milkvetch, Kellogg's horkelia, Douglas' spineflower, sand almond, San Luis Obispo monardella, and dunedelion.
- **Open Sand (special-status plants unlikely):** Beach spectaclepod, surf thistle, Blochman's groundsel, red sand verbena, Blochman's leafy daisy, California spineflower, coastal goosefoot, crisp monardella, San Luis Obispo monardella, dunedelion, sand almond, suffrutescent wallflower, and fuzzy prickly phlox.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
red sand verbena *Abronia maritima*	CRPR 4.2	Observed in and around the HCP area, including near Strand Way, Pismo Dunes Natural Preserve, in north Oso Flaco, near Oso Flaco Creek, and on vegetation islands (e.g., Pavilion Hill, Tabletop, and Worm Valley).	Moderate. This species is widespread in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is widespread in the HCP area and the HCP proposes new covered activities that could impact this species.
Hoover's bent grass *Agrostis hooveri*	CRPR 1B.2	Has not been observed in the HCP area but has been documented by the CNDDB within 5 miles of the HCP area and some limited suitable habitat is present.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities (e.g., riding in 40 Acres) would occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.
sand mesa manzanita *Arctostaphylos rudis*	CRPR 1B.2	Observed within the Phillips 66 Leasehold.	Moderate. Motorized vehicles and pedestrians are not allowed in the Phillips 66 Leasehold. Natural resource management activities and other covered activities in suitable habitat in the Phillips 66 Leasehold can impact this species.	Moderate. HCP proposes new activities (e.g., listed plant outplanting) in suitable habitat areas that could impact this species.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]				
Species	**Listing Status[2]**	**Occurrence**	**Potential for Impact from Existing Covered Activities Proposed for ITP Authorization**	**Potential for Impact from New Covered Activities Proposed for ITP Authorization**
marsh sandwort[3] *Arenaria paludicola*	FE, SE, CRPR 1B.1	Known population at Oso Flaco Lake presumed to be extant. Not observed since 2005 due to accessibility issues.	Moderate. Covered activities avoid known locations for this species to the greatest extent possible; however, natural resource management activities, routine riparian maintenance activities, and other covered activities in suitable habitat can impact this species.	Moderate. HCP proposes new covered activities (e.g., Oso Flaco boardwalk replacement and listed plant outplanting) that could impact this species.
Nuttall's milkvetch *Astragalus nuttallii* var. *nuttallii*	CRPR 4.2	Observed within Oceano Dunes SVRA including in Pismo Dunes Natural Preserve, Phillips 66 Leasehold, Oso Flaco, and vegetation islands (e.g., Boyscout Camp, Worm Valley, Caterpillar Hill, and Eucalyptus Tree).	High. This species is common in vegetated habitats in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is common in vegetated habitats in the HCP area and the HCP proposes new covered activities (e.g., riding in 40 Acres) that could impact this species.
Monterey Coast paintbrush *Castilleja latifolia ssp. latifolia*	CRPR 4.3	Known to be widespread in the HCP area, including Carpenter Creek, Oso Flaco, Oso Flaco Lake, vegetation islands, Pismo Dunes Natural Preserve, and Phillips 66 Leasehold.	High. Habitat is present throughout the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. Habitat is present throughout the HCP area and the HCP proposes new covered that could impact this species.
coastal goosefoot *Chenopodium littoreum*	CRPR 1B.2	Observed at Oso Flaco Lake and Phillips 66 Leasehold.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., Oso Flaco Lake boardwalk replacement and listed plant outplanting) that could impact this species.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
Douglas's spineflower *Chorizanthe douglasii*	CRPR 4.3	Documented within the Pavilion Hill vegetation island.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., riding in 40 Acres) that could impact this species.
surf thistle *Cirsium rhothophilum*	ST, CRPR 1B.2	Observed near Oso Flaco Creek and in the foredunes of the Oso Flaco area.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting) that could impact this species.
La Graciosa thistle *Cirsium scariosum var. loncholepis*	FE, ST, CRPR 1B.1	Observed at Oso Flaco Lake, in South Oso Flaco, Phillips 66 Leasehold, near Jack Lake, in the Callander Dunes, and at the Dune Lake complex. Critical habitat for this species is also present.	Moderate. Covered activities avoid known locations for this species to the greatest extent possible; however, covered activities in suitable habitat can impact this species. Covered activities can also impact critical habitat for this species.	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting) that could impact this species and/or critical habitat for this species.
California saw-grass *Cladium californicum*	CRPR 2.2	Has not been found in the Oceano Dunes SVRA in recent years; however, it is was documented in the CNDDB as occurring near Oso Flaco Lake in 1990. Suitable habitat is present within the HCP area.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
paniculate tarplant *Deinandra paniculata*	CRPR 4.2	Observed in the HCP area in the southern portion of the Phillips 66 Leasehold. Suitable habitat for this plant is limited in the HCP area. Suitable habitat is present in the HCP area.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.
dune larkspur *Delphinium parryi ssp. blochmaniae*	CRPR 1B.2	Observed almost every year within the Phillips 66 Leasehold and in South Oso Flaco, including South Oso Flaco Lake.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., riding in 40 Acres, listed plant outplanting) that could impact this species.
beach spectaclepod *Dithyrea maritima*	ST, CRPR 1B.1	Known to occur at Oso Flaco Lake and in the Oso Flaco area.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting) that could impact this species.
Blochman's leafy daisy *Erigeron blochmaniae*	CRPR 1B.2	Locally common and widespread throughout the HCP area.	Moderate. This species is widespread in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is widespread in the HCP area and the HCP proposes new covered activities (e.g., riding in 40 Acres, new PMRP dust activities, mechanical raking) that could impact this species.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
suffrutescent wallflower *Erysimum suffrutescens*	CRPR 4.2	Locally common and widespread throughout the HCP area.	Moderate. This species is widespread in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is widespread in the HCP area and the HCP proposes new covered activities (e.g., riding in 40 Acres, new PMRP dust activities, mechanical raking) that could impact this species.
Mesa horkelia *Horkelia cuneata* var. *puberula*	CRPR 1B.1	Documented by the CNDDB within the Oceano Dunes SVRA at Oso Flaco Lake in 1973. Suitable habitat is present in the HCP area.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	CRPR 1B.1	Observed in the Pismo Dunes Natural Preserve, in Pismo State Beach and in the Phillips 66 Leasehold.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities that could impact this species.
Southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	CRPR 4.2	Observed in the HCP area in the Pismo Dunes Natural Preserve and at the Eucalyptus Tree vegetation island.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting) that could impact this species.
fuzzy prickly phlox *Linanthus californicus*	CRPR 4.2	Observed in the Pismo Dunes Natural Preserve, Phillips 66 Leasehold, and the backdunes of South Oso Flaco.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities that could impact this species.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]				
Species	**Listing Status[2]**	**Occurrence**	**Potential for Impact from Existing Covered Activities Proposed for ITP Authorization**	**Potential for Impact from New Covered Activities Proposed for ITP Authorization**
Nipomo Mesa lupine *Lupinus nipomensis*	FE, SE, CRPR 1B.1	Observed in the eastern part of the Phillips 66 Leasehold.	Moderate. Motorized vehicles and pedestrians are not allowed in the Phillips 66 Leasehold. Natural resource management activities and other covered activities in suitable habitat in the Phillips 66 Leasehold can impact this species	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting) that could impact this species.
dunedelion *Malacothrix incana*	CRPR 4.3	Observed at the Pavilion Hill vegetation island, 7.5 revegetation area, in North Oso Flaco, and near Oso Flaco Creek.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities that could impact this species.
southern curly-leaved monardella *Monardella sinuata ssp. sinuate*	CRPR 1B.2	Has not been observed in the HCP area but has been documented by the CNDDB within 5 miles of the HCP area, although these records range from 1908 to 1947. Some limited suitable habitat is present in the HCP area.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.
crisp monardella *Monardella undulata* ssp. *crispa*	CRPR 1B.2	Locally common and widespread throughout the HCP area. Occurs within the vegetation island habitats and at the edges of other vegetation within the HCP area.	Moderate. This species is widespread in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is widespread in the HCP area and the HCP proposes new covered activities (e.g., riding in 40 Acres, new PMRP dust activities, mechanical raking) that could impact this species.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
San Luis Obispo monardella *Monardella undulata* ssp. *undulata*	CRPR 1B.2	Observed in the Pismo Dunes Natural Preserve, in the southern part of the Phillips 66 Leasehold, and in the southern backdunes of south Oso Flaco. It has also been observed nearby at Black Lake and Jack Lake.	Moderate. This species is widespread in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is widespread in the HCP area and the HCP proposes new covered activities (e.g., riding in 40 Acres, new PMRP dust activities, mechanical raking) that could impact this species.
California spineflower *Mucronea californica*	CRPR 4.2	Observed in the Pismo Dunes Natural Preserve, Phillips 66 Leasehold, and South Oso Flaco.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities that could impact this species.
Gambel's watercress *Nasturtium [Rorippa] gambelii*	FE, ST, CRPR 1B.1	Known from Oso Flaco Lake, but may have hybridized with common watercress (*N. officinale*).	Moderate. Covered activities avoid known locations for this species to the greatest extent possible; however, natural resource management activities, routine riparian maintenance activities, and other covered activities in suitable habitat could impact this species.	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting, Oso Flaco boardwalk replacement) that could impact this species.
coast woolly-heads *Nemacaulis denudata* var. *denudate*	CRPR 1B.2	One CNDDB record has been documented within the dunes north of Oso Flaco Lake. Suitable habitat is present within the HCP area.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
short-lobed broomrape *Orobanche parishii* ssp. *brachyloba*	CRPR 4.2	Known in HCP area from one occurrence in South Oso Flaco. Suitable habitat is present within the HCP area.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.
Hickman's popcorn flower *Plagiobothrys chorisianus* var. *hickmanii*	CRPR 4.2	Observed at four vegetation islands within the HCP area, in the Phillips 66 Leasehold, and near Maidenform.	Moderate. Covered activities in suitable habitat areas can impact this species.	Moderate. HCP proposes new covered activities (e.g., listed plant outplanting, riding in 40 Acres) that could impact this species.
sand almond *Prunus fasciculata* var. *punctate*	CRPR 4.3	Observed within the Phillips 66 Leasehold.	Moderate. Motorized vehicles and pedestrians are not allowed in the Phillips 66 Leasehold. Natural resource management activities and other covered activities in suitable habitat in the Phillips 66 Leasehold can impact this species.	Moderate. HCP proposes new activities (e.g., listed plant outplanting) in suitable habitat areas that could impact this species.
Black-flowered figwort *Scrophularia atrata*	CRPR 1B.2	Has not been observed in the HCP area but has been documented by the CNDDB within 5 miles of the HCP area and some limited suitable habitat is present.	Low. Although some covered activities occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.	Low. Although some new proposed covered activities may occur in suitable habitat areas, this species is likely rare in the HCP area. As a result, potential for covered activities to impact this species is considered low.

Table C-3. Special-status Plant Species Present or with Potential to Occur in the Oceano Dunes District HCP Area[1]

Species	Listing Status[2]	Occurrence	Potential for Impact from Existing Covered Activities Proposed for ITP Authorization	Potential for Impact from New Covered Activities Proposed for ITP Authorization
Blochman's groundsel *Senecio blochmaniae*	CRPR 4.2	Locally common and widespread throughout HCP area. Occurs in the Blochman's groundsel scrub vegetation alliance (Senecio blochmaniae Shrubland Alliance) where Blochman's groundsel is dominant or co-dominant in the shrub layer.	Moderate. This species is widespread in the HCP area and covered activities in suitable habitat areas can impact this species.	Moderate. This species is widespread in the HCP area and the HCP proposes new covered activities (e.g., riding in 40 Acres, new PMRP dust activities, mechanical raking) that could impact this species.

[1] Three species observed in the HCP area including, Monterey cypress (*Cypressus macrocarpa;* CRPR 1B.2), Monterey pine (*Pinus radiata;* CRPR 1B.1), and Torrey pine (*Pinus torreyana* ssp. *torreyana;* CRPR 1B.2), are CRPR special-status plants where they naturally occur but are not native to the HCP area and, thus, are not discussed further.

[2] Listing Status Key:

FE – Federal Endangered

SE – State Endangered
ST – State Threatened
SR – State Rare

California Rare Plant Rank:

CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
CRPR 2: Plants rare, threatened, or endangered in Calif. but common elsewhere.
CRPR 3: More information about this plant needed (Review List).
CRPR 4: Limited distribution (Watch List).

CRPR Threat Code extensions and their meanings:
.1 – Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known).

[3] Species listed in bold are covered species in the Oceano Dunes District HCP.

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Sensitive Plant Communities, Including Riparian

Natural communities include vegetation communities designated by the Service, CDFW, CCC, and other federal, state, or local agencies. There are numerous CDFW sensitive natural communities within the HCP area, including central dune scrub, central foredunes, coastal and valley freshwater marsh, black cottonwood (*Populus trichocarpa*) forest, coast live oak (*Quercus agrifolia*) woodland, dune mat, Beach pine (*Pinus contorta* ssp. *contorta*) forest, silver dune lupine (*Lupinus chamissonis*) – mock heather scrub (*Ericameria ericoides*), Arroyo willow (*Salix lasiolepis*) thickets, coyote brush (*Baccharis pilularis*) scrub, wax myrtle (*Morella californica*) scrub, giant coreopsis (*Coreopsis gigantea*) scrub, coastal brambles, blue elderberry (*Sambucus nigra* ssp. *caerulea*) stands, California bulrush (*Schoenoplectus californicus*) marsh, salt rush swales, field sedge (*Carex praegracilis*) meadows, mats of bur-reed (*Sparganium eurycarpum*) leaves, pickleweed (*Salicornia pacifica*) mats, Pacific silverweed (*Argentina egedii*) marshes, giant wild rye (*Leymus condensatus*) grassland, and American bulrush (*Schoenoplectus americanus*) marsh.

Critical habitat designated by the Service is present within the HCP area, including for SNPL, tidewater goby, and La Graciosa thistle.

The HCP area also contains several Environmentally Sensitive Habitat Areas (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 (San Luis Obispo County 2018). 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.

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 Clean Water Act and the State government under the Clean Water Act, Porter Cologne Act, and the California Coastal Act. 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. It also contains Oso Flaco Lake, Pismo Lake, and occasional slack lakes in the dunes. Wetland can occur in any of these aquatic features in any particular year. Wetland is perennially present along the margins of the lakes. Wetland alliances also occur in the vegetated islands, the fore and back dunes, in South Oso Flaco, in the Pismo State Beach area, the North Beach Campground area, and Phillips 66. The Vegetation Mapping Report (MIG|TRA 2015) maps the following wetland alliances: arroyo willow thickets (395 acres), wax myrtle scrub (10 acres), California bulrush marsh (45 acres), salt rush swales (15 acres), cattail marshes (3 acres), mats of bur-reed leaves (1 acre), pickleweed mats (1 acre), salt grass flats (1 acre), Pacific silverweed marsh (0.4 acre), American bulrush marsh (0.2 acre), duckweed blooms (36 acres, i.e., Oso Flaco Lake), field sedge meadows (4 acres), and jaumea mats (0.1 acre).

Air Quality

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 project area is located along the central coast of California, within the South Central Coast Air Basin (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 San Luis Obispo County Air Pollution Control District (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.

Windblown dust in southwestern San Luis Obispo County is, and has been, an issue of focused public concern and academic research for more than a decade. Particulate matter (PM) emissions from Oceano Dunes SVRA have been subject to a number of regulatory requirements that have shaped the SVRA's environmental setting. CDPR signed a Stipulated Order of Abatement from the SLOAPCD to develop a Particulate Matter Reduction Plan (PMRP) to achieve State and Federal air quality standards. Future dust control actions that will be implemented pursuant to this regulatory requirement would occur (at a minimum) during the first 4 years of HCP implementation. These dust control measures at the SVRA will further change the environmental and regulatory setting of Oceano Dunes SVRA.

Regulated Air Pollutants

In California, both the Federal and State Clean Air Acts are administered by the California Air Resources Board (CARB).

A description of National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) as well as the common air pollutants are presented in the HCP EIR section 5.1.1. 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. PM and O_3 are the primary pollutants of concern in southern San Luis Obispo County.

Table C-4 below lists the NAAQS and CAAQS and summarizes the SCCAB attainment status for ozone and particulate matter. The South Central Coast Air Basin (SCCAB) is in attainment or unclassified for all other criteria air pollutants.

Table C-4. Ambient Air Quality Standards and SFBAAB Attainment Status[A]

Pollutant	Averaging Time	California AAQS [B]		National AAQS [C]	
		Standard [D]	Attainment Status [E]	Standard [D]	Attainment Status [E]
Ozone	1-Hour	180 µg/m^3	**N**	--	--
	8-Hour	137 µg/m^3	**N**	137 µg/m^3	**N**[F]
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	12 µg/m^3	A

Table C-4. Ambient Air Quality Standards and SFBAAB Attainment Status(A)

Pollutant	Averaging Time	California AAQS (B)		National AAQS (C)	
		Standard (D)	Attainment Status (E)	Standard (D)	Attainment Status (E)

Source: SLOACPD 2017, CARB 2015a, CARB 2015b, modified by MIG.

(A) For a listing of all CAAQS and NAAQS standards and SCCAB attainment status, see: https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/AttainmentStatus22February2017.pdf

(B) Table does not list CAAQS for CO, N_2O, SO_2, SO_X lead, vinyl chloride, and visibility reducing particles. California standards for ozone and suspended PM_{10} and $PM_{2.5}$ are values that are not to be exceeded.

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

(D) All standards shown in terms of micrograms per cubic meter (µg/m^3) for comparison purposes.

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

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

The SLOAPCD, the local agency charged with preserving air quality, divides SLO 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 SLO 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 2014a). These stations measure ambient concentrations of PM_{10}. A fourth monitoring station, referred to as the Oso Flaco monitoring station, was installed in 2015 and is operated by the OHMVR Division in the southeastern-most corner of the Oceano Dunes District boundary.[9] Monitoring station locations are shown in HCP EIR Figure 5-2.

Over the last 7 years (2013-2019), the State's 24-hour PM_{10} standard has been exceeded many times at the three SLOAPCD monitoring stations (see HCP EIR Table 5-2). During this time period, the CDF monitoring station annually reported 54 to 97 exceedances, Mesa 2 reported 30 to 55 exceedances, and NRP reported 8 to 20 exceedances (HCP EIR Table 5-2). The Oso Flaco station has also had exceedances, ranging from 1 to 12, since 2015 (HCP EIR Table 5-2).

The 24-hour State standard for PM_{10} has been exceeded far more often than the Federal standard. The reason for this is that the State standard (50 µg/m^3) is more stringent than the Federal standard (150 µg/m^3), by a factor of approximately one third. In addition, the CAAQS and NAAQS annual $PM_{2.5}$ standard (12 µg/m^3) was exceeded in 2013, 2014, and 2017 (HCP EIR Table 5-3).

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

Oceano Dunes SVRA is situated in the Guadalupe-Nipomo Dunes Complex, an approximately 18,000-acre, 18-mile-long coastal dune landscape that contains large, vegetated and unvegetated sand dunes subject to strong prevailing winds (see HCP EIR Figure 5-5). 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

[9] The Oso Flaco monitor was discontinued in December 2016 and reinstalled in March 2017.

several feet per year (CGS 2007). These strong prevailing winds push sand grains along the ground surface as shown in HCP EIR Figure 5-3. 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.

Dust and PM Studies at Oceano Dunes SVRA

The SLOAPCD and the OHMVR Division have completed ten studies since 2007 that have examined dust and PM generation at Oceano Dunes SVRA. The studies and their conclusions are summarized in the HCP EIR section 5.2.3. Although the OHMVR Division and the SLOAPCD collaborated on the development and analysis of most of the studies, the specific findings and conclusions of each report have not been fully accepted by both agencies.

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). Sensitive receptors considered in this EA include the residences and schools on and around the Nipomo Mesa, downwind of Oceano Dunes SVRA.

Cultural Resources

The cultural setting of the HCP area is briefly presented below. Please see the HCP EIR for a full discussion.

The HCP area is located within the Northern Chumash or Obispeño and Purisimeño language territory. There were six major Chumash villages adjacent to the project area. 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, 505). 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, 507). The reserve has since grown to over 1,000 acres with a large land purchase in 2010 (Khan 2018).

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, 10).

Between 1886 and 1894 the Southern Pacific Railroad was extended southward, starting at San Miguel and ending in San Luis Obispo. The impetus for the town of Oceano was the coming of the Southern Pacific Railroad to San Luis Obispo County in 1895 (Hammond 1992, 10-11).

An assortment of wayward individuals known as Dunites occupied areas throughout the dunes in present day Oceano Dunes SVRA beginning in the early 20th century to the mid-1970s. Following the attack on Pearl Harbor, the dunes were closed to visitors, and many

Dunites left (Hammond 1992 as cited in Gruver et al. 2005: 7). 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).

There are at least 48 existing cultural resources within the HCP area. One burial site is known within the HCP area containing at least one human burial. Documentation for 45 of the resources is provided by a Cultural Resource Inventory (CRI) prepared in 2011 covering both Oceano Dunes SVRA and Pismo State Beach (Perez 2011). 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). Of the known resources, 43 are prehistoric, 4 are historic, and 1 is multi component (i.e., contains elements of both prehistoric and historic periods). Forty-four sites contain prehistoric elements, which could be considered Tribal Cultural Resources. Twenty-five of the prehistoric sites are considered eligible for inclusion on either the CRHR or NRHP or both. One prehistoric site is considered ineligible for any register. The remaining prehistoric sites require further archaeological investigation before a determination of eligibility can be made.

Additionally, there were 29 archaeological sites 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 archaeological cultural resources.

Cultural resources in the HCP area are known and actively managed under current park operations. Sensitive areas are closed to public access or fenced to prevent access from the most disturbing activities such as motorized recreation. The open riding area of the Oceano Dunes SVRA excludes areas of medium to high cultural sensitivity such as the Pismo Dunes Natural Preserve, vegetated backdunes, vegetation islands, and Oso Flaco area.

Due to the nature of the sand dunes within the HCP area, archaeological discovery often happens by accident, when sands shift and reveal cultural resources that were previously subsurface. When these are discovered, State Parks archaeologists record and catalog the discoveries and provide the Northwest 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 cultural sites have been discovered within the HCP area, all of which CDPR archeologists have cataloged and recorded and forwarded to the Northwest Information Center. These new resources are included in the cultural resources summary, above.

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.

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 U.S., 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."

Recreation

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 n.d.). An overview of the State Park system is provided in the HCP EIR, Table 8-1. 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, San Luis Obispo, Santa Barbara, and Ventura Counties, and the only unit that allows OHV recreation and camping on the beach and adjacent dunes. The other unit with OHV recreation 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, San Luis Obispo, Santa Barbara, or Ventura County where OHV recreation is permitted.

From 1.6 to 1.9 million people visit the Oceano Dunes District every year engaging in pedestrian, camping, motorized vehicle, and other recreational activities. In general, daily visitation is highest on weekend days, holidays, and during the summer months (late May to early September).

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). This EA considers beach- and dune-oriented recreational opportunities to be coastal-dependent recreation activities.[10] For the purposes of this EA, coastal-dependent recreation activities at Pismo State Beach and Oceano Dunes SVRA include:

- 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

The HCP area comprises 5,005 acres of managed lands, the majority of which is managed for public recreation purposes. There are 844 acres located in the eastern portion of Oceano Dunes SVRA that are closed to all public access and recreation (see Figure 3); this area includes lands operated by the OHMVR Division but owned by Phillips 66 and lands leased from the OHMVR Division for agricultural purposes. Pismo State Beach consists of 1,515 acres of managed recreation lands, nearly all of which is open to the public. As described in more detail in EIR section 2.1, the parks provide both vehicular and non-

[10] The CCC is the sole agency with primary jurisdiction over the California Coastal Act and as such may or may not find these activities to be coastal-dependent uses.

vehicular recreation opportunities.

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). On summer and holiday weekends, street-legal vehicle use approaches these daily limits (HCP Table 2-2). In compliance with the November 2019 SOA amendments, CDPR fenced off 48 acres of shoreline area, which CDPR proposes to vegetate or otherwise treat to create a foredune. Given that the foredune closure is within a prime camping location, CDPR has administratively[11] reduced the number of daily camping units from 1,000 down to 500. Off-season and weekday use levels are typically less than half of summer weekend levels. Motorized use is allowed in the designated areas 24 hours a day. Except for emergency responders, all vehicles must obey a 15 miles-per-hour (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.

Motorized vehicles, other than those used by park personnel, are allowed off road only in designated areas (Figure 3). Street-legal vehicles can operate from Grand Avenue south for 6 miles down the coast to the southern boundary of the Ocean Dunes SVRA open riding and camping area. From Grand Avenue to Post 2, vehicle recreation is limited to street-legal vehicles only (see Figure 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. 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 (Figure 6) and seasonally prohibited (March 1 through September 30) within SNPL and CLTE nesting areas (Figure 7).

The park is managed to provide natural resource management while balancing the need for coastal access for recreational opportunity. Natural resource management restricts recreation access in sensitive resource areas that are most vulnerable to damage from public access or disruptive to special-status species. As shown in Table C-5, with the exception of the agricultural lease lands and Pismo Lake, the HCP area is open to pedestrian access. Sensitive resource areas within the HCP area (e.g., vegetation islands, Oso Flaco Exclosure) are closed to equestrian use. Additionally, Pismo Dunes Natural Area is closed to vehicle recreation.

[11] CDPR considers the camping reduction temporary pending CEQA review and formal decisionmaking.

Table C-5. 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	1,444	70(A)	1,413	101B)	273	1,241(C)	208	1,306(D)
Oceano Dunes SVRA	3,490	2,621	869(E)	1,389	2,102(F)	1,097	2,393(G)	1,097	2,393(G)
TOTAL(H)	5,005	4,065	939	2,802	2,203	1,370	3,634	1,305	3,669

Source: OHMVR Division / MIG 2020

(A) Pismo Lake (open, but public visitation is not encouraged due to lack of access points)

(B) Pismo Lake, Golf Course, and Ranger Station

(C) Pismo Lake, Pismo Dunes Natural Preserve, Pismo State Beach north of Grand Avenue

(D) Pismo Dunes Natural Preserve and all areas north of Post 2

(E) Phillips 66 leasehold and agricultural lease area

(F) Phillips 66 leasehold, agricultural lease area, and Oso Flaco area

(G) Phillips 66 leasehold, agricultural lease area, Oso Flaco area, vegetated islands, and northern portion of SVRA contiguous with Pismo Dunes Natural Preserve

(H) Totals may not add due to rounding.

Resource management actions over time have reduced the area open to vehicle recreation as shown in Table C-6. Dust control program activities and cultural resource management have restricted recreation opportunity. Dust control measures (Table C-6; Year 2017) have been installed in the riding area to reduce windborne dust and PM_{10} levels, including permanent control measures as described in HCP section 2.2.5.4 that are closed to motor vehicle recreation and camping. Sensitive cultural resource areas have been protected through fencing and closure to motor vehicle recreation. These are existing limitations to recreation uses.

Table C-6. 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	CCC 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 C-6. History of Riding Area Restrictions	
Year	**Change in Recreation Area**
2001	Exclosure was extended from the 7.5 revegetation area 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 Marker 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 approximately 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 approximately 374 acres of riding area. CCC issues Emergency Permit (CDP# G-3-19-0053) authorizing fencing of a 48-acre area north of Post 6 to prohibit vehicle access (December) reducing riding area to 1,305 acres.

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Oceano Dunes District
Habitat Conservation Plan EA

Appendix D: Biological Effects of ITP Covered Activities

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Appendix D: Biological Effects of ITP Covered Activities

Special-Status Animal Species

Section 9 of FESA prohibits the take of endangered species without special exemption; by regulation, this take prohibition has been made applicable to the threatened species proposed for coverage under this HCP. 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 Service 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 Service as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which 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 2018), 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.

The HCP identifies park activities grouped into five categories: park visitor activities, natural resource management program, park maintenance, visitor services, and other activities. Avoidance and minimization measures (AMMs) are included to eliminate or reduce the potential for activities to impact covered species. Those activities with remaining potential to cause take impact after implementation of the AMMs are subject to an ITP. These activities are described in detail in Chapter 2 of the HCP and are evaluated in this EA. EA Section 3.1 includes more detail on the analytical methodology used in this EA. EA Table 2-2 lists the HCP activities with potential for take impact requiring take authorization from the Service (see HCP section 4.7). Some activities have no potential for take or would not result in take with the implementation of AMMs. Only those covered activities subject to an ITP are discussed further in this EA, as appropriate. Covered activities that have no potential for take or would not result in take are dismissed from further discussion.

The majority of HCP activities with potential for take are existing activities that have been occurring in the HCP area for decades. Existing covered activities are ongoing visitor use or park operation activities occurring within the HCP area. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. Effects to special-status animal species from these activities are existing baseline environmental conditions.

The HCP also includes new activities with the potential to cause new take impacts. The HCP proposes new activities requiring Federal authorization of take under an ITP including SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activities or other non-covered species management activities (CA-12b), SNPL adult banding (CA-12b), mechanical trash removal (CA-21), Pismo Creek Estuary seasonal (floating) bridge (CA-41), riding in 40 Acres (CA-42), dust control activities – Particulate Matter Reduction Plan (PMRP) Foredune Vegetation (CA-44), Oso Flaco boardwalk replacement (CA-48), special projects (CA-49), reduction of Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR use of Unmanned Aircraft Systems (UAS; CA-52). New covered activities may result in new impacts to special-status animal species in the HCP area.

Discussion of each covered and non-covered special-status species below is organized by existing and new covered activities according to impact intensity categories. The discussion takes into consideration both the risk and magnitude of the impact. Impact intensity categories used in this analysis are defined in Table D-1. The assessment of impact considers both the likelihood (risk)of occurrence and the magnitude of the effect. Therefore, even though risk of impact may be high, it may not be classified as a high or moderate impact if the magnitude is considered infrequent, short in duration, and/or will not change the condition of the resource.

Table D-1. Impact Intensity Definitions
Negligible. Minimal impact on the resource occurs; any change that occurs is barely perceptible and not easily measurable. Negligible impacts have not been observed and are extremely unlikely to occur.
Minor. Change in a resource occurs, but no substantial resource impact results; the change in the resource is detectable but does not alter the condition of the resource. Minor impacts have either been observed or are thought to occur and most or all impacts are thought to be avoided with the implementation of AMMs. Both lethal and non-lethal biological impacts can be minor depending on the frequency, duration, and location of the activity. Lethal impacts include both direct and indirect mortality. Non-lethal impacts include injury, capture, and/or disturbance to such a degree that it could result in injury.
Moderate. Noticeable change in a resource occurs and this change alters the condition of the resource, but the integrity of the resource remains intact. Moderate impacts have been observed or are thought to occur and cannot be avoided. Both lethal and non-lethal biological impacts can be moderate depending on the frequency, duration, and location of the activity. Lethal impacts include both direct and indirect mortality. Non-lethal impacts include injury, capture, and/or disturbance to such a degree that it could result in injury.
Major. Substantial impact or change in a resource occurs that is easily defined and highly noticeable and that measurably alters the condition of the resource; the integrity of the resource does not necessarily remain intact.
Beneficial. Changes that occur are beneficial to the species through habitat improvements, reduced mortality, and/or increased reproductive success.

Western Snowy Plover (SNPL)

Impacts to SNPL from HCP covered activities are described in the HCP section 4.3. An evaluation of whether take occurs from each covered activity is provided in EA Table 2-2.

Effects of ITP Covered Existing Activities on SNPL

The following activities proposed for take coverage under the ITP are existing ongoing visitor use or park operation activities occurring within the HCP area. No major impacts from existing covered activities on SNPL have been identified. Existing covered activities described below result in take of SNPL. Effects to SNPL from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to SNPL from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in take of SNPL (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered existing activities occurring outside of SNPL primary and secondary habitat areas including critical habitat have no or negligible risk of impacting SNPL and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to SNPL include routine riparian maintenance (CA-26), Pismo Beach golf course operations (CA-37), natural history/interpretation (CA-39), CDPR ag land management (CA-46), and pesticide use (CA-51).

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1) and Camping (CA-2). Motorized recreation and camping occur on an ongoing basis in primary and secondary SNPL breeding and wintering shoreline habitat year-round from Grand Avenue to Post 6 and seasonally (non-breeding months) south of Post 6 to the southern riding boundary. Impacts to SNPL from motorized recreation and camping are described in HCP sections 4.3.1.1.1 and 4.3.1.1.2. Take of SNPL has been documented in the HCP area from motor vehicle recreation is summarized in EIR Table 6-8.

Although infrequent, SNPL have been found during the breeding season dead or injured outside the seasonal exclosure and these mortalities/injuries have been attributed to vehicle strike from motorized activities (e.g., a dead individual is found in a tire track), including from campers driving to camp sites. Unprotected SNPL nests outside of exclosures could be crushed by vehicles, although SNPL AMMs 1 through 31 reduce the risk of this occurring; therefore, this is thought to be an infrequent event. Chicks have also been observed in the open riding area where they are at risk of being struck by a vehicle; however, CDPR implements SNPL AMMs 17 through 19 to minimize the risk of a chick being struck by a vehicle and few chicks are thought to be killed by vehicles in the open riding area. In addition, wintering SNPL have been struck by vehicles when they occur in areas where vehicles are driving through. Although CDPR implements SNPL AMMs 1 through 31 to reduce this impact, wintering SNPL are still found dead or injured near and in tire tracks each year. This indicates that wintering SNPL are still vulnerable to vehicle strike despite the implementation of AMMs and the risk of lethal impact is high. Overall, given the success of the conservation program within the HCP area at minimizing vehicle strike and increasing SNPL breeding success, the lethal impact to SNPL from vehicle strike is moderate. This trend is expected to continue in the future.

SNPL breeding habitat south of Post 6 in Oceano Dunes SVRA is seasonally closed to motorized recreation under the existing natural resource management program. Therefore, SNPL within the seasonal exclosure south of Post 6 are not disturbed by motorized recreation. SNPL nesting near the Southern Exclosure fence line adjacent to the open riding area or outside the Southern Exclosure within the open riding area have been observed being disturbed by nearby recreation. Disturbance by motorized recreation can eventually lead to stress, reproductive failure, reduced foraging success, injury, illness, or even death. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. CDPR implements SNPL AMMs 1 through 31, including installing bumpouts if SNPL appear to be

disturbed by nearby recreation activities. Disturbance is difficult to document, however, and it is likely that some disturbance occurs despite the implementation of AMMs. As a result, the risk of disturbance is moderate. Overall, AMMs are considered effective at reducing disturbance from vehicles and this non-lethal impact is minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash, most of which is disposed of properly in dumpsters. However, any trash that is accessible to predatory species can artificially increase the number of individual predators in areas used by SNPL and thus indirectly increase predation on SNPL. CDPR implements SNPL AMMs 32 through 42, which includes requiring all visitors to deposit all trash in dumpsters/receptacles, providing trash bags to all campers and CDPR staff and manually removing litter and garbage from the beaches. CDPR also implements a predator management program to control avian and/or mammalian predators that are observed targeting or disturbing SNPL adults, chicks, or eggs. Generalist predators that forage on refuse continue to be present in the HCP area and are often suspected of preying on eggs, chicks, juveniles, and adults and the risk of indirect lethal impact is high. Overall, with the implementation of AMMs and the predator management program, which has been successful at controlling predators that have been found targeting SNPL adults, chicks, or eggs, the indirect lethal impact is moderate. This trend is expected to continue in the future.

Habitat quality is permanently reduced in areas open to motorized recreation and camping due to the high level of disturbance. Motorized vehicle recreation reduces available habitat for SNPL and other shorebirds by limiting use in the open riding area compared to non-motorized areas, especially in certain conditions such as high tides. SNPL are less frequent in areas open to motorized vehicles indicating that they may avoid these areas, especially during the breeding season. In addition, motorized recreation in the non-breeding season when the seasonal exclosure has been removed, can alter dune vegetation and topography necessary for SNPL to breed in the coming breeding season. Specifically, motorized recreation can reduce vegetation, organic surface materials (e.g., driftwood), and micro-topography required for SNPL breeding and foraging. CDPR implements SNPL AMMs 43 through 45 to restore habitat that has been impacted during the non-breeding season. In addition, CDPR closes off a portion of the open riding area during the breeding season (i.e., the seasonal exclosure) to ensure that suitable habitat is available for SNPL breeding, foraging, and roosting. Other primary and secondary habitat for SNPL continues to be used for motorized recreation and remains unavailable or of reduced quality for SNPL. Overall, this habitat impact is moderate with the implementation of AMMs that protect and/or enhance suitable SNPL habitat during the breeding and non-breeding season. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal and non-lethal take impacts. Results in a moderate level of indirect lethal take impacts. Results in a moderate level of habitat impacts.

Pedestrian Activity (CA-3). Pedestrian activity occurs on an ongoing basis in the HCP area, including within areas where motorized vehicles are not allowed (e.g., Oso Flaco, vegetation islands). Impacts to SNPL from pedestrian activity are described in HCP section 4.3.1.1.3. Pedestrians are not permitted within the seasonal exclosure, which is fenced with predator fence or symbolic fence, and therefore pedestrians do not impact nesting or

brooding SNPL within the seasonal exclosure. The cryptic nature of SNPL nests and chicks makes it possible for a pedestrian to crush/kill or injure an active SNPL nest or a chick that is outside the fenced area and not yet identified by monitors. CDPR implements SNPL AMMs 1 through 3, 5 through 9, 14 through 16, 21 through 30, and 46 through 50 to reduce the risk of this occurring. There are no records of SNPL chicks or eggs being crushed/killed or injured due to pedestrian activities in the HCP area, and AMMs appear to reduce the risk of this happening. As a result, the risk of lethal impact is low, and the lethal impact is minor. This trend is expected to continue in the future.

Pedestrians moving through habitat occupied by SNPL disturb nesting, foraging, or roosting SNPL. Frequent disturbance by pedestrians can eventually lead to stress, reduced foraging success, injury, illness, emaciation, or even death. SNPL frequently feed on terrestrial insects that are typically found in the wrack line where people prefer to walk. Foraging SNPL adults and chicks interrupted by humans stop foraging and move away from the wrack until the disturbance has passed. SNPL chicks may be abandoned if the adult is disturbed enough that it does not return to the chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood. Stationary activities, such as picnicking and sunbathing, can displace SNPL for long periods. In addition, frequent or prolonged pedestrian activities can keep SNPL from using otherwise suitable habitat. This effect has been most acute along the shoreline south of the Oso Flaco boardwalk, where monitors have observed visitor presence keeping SNPL off nests. SNPL AMMs 1 through 3, 5 through 9, 14 through 16, 21 through 30, and 46 through 50 reduce the risk of pedestrians causing significant disturbance, however, some disturbance still likely occurs in the HCP area especially along the shoreline south of the Oso Flaco boardwalk. Therefore, the risk of disturbance is considered moderate. Overall, with the implementation of AMMs, the non-lethal impact is minor to moderate depending on the duration and frequency of disturbance. This trend is expected to continue in the future.

SNPL chicks that enter an area open to pedestrians, have been picked up by a well-meaning visitor attempting to “rescue” the chick by picking it up and moving it to another location or bringing it to park staff. Specifically, this was observed in 2014 when a 1 to 2-day-old SNPL chick was picked up by a park visitor and given to park staff. CDPR implements SNPL AMMs 1 and 2, which includes providing educational information regarding SNPL. These AMMs appear to have reduced this impact since this has not been documented since 2014. As a result, the risk of a visitor picking up a chick is low, and the non-lethal impact is minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2). CDPR implements SNPL AMMs 32 through 44 to reduce the effects on SNPL. Therefore, this indirect lethal impact is moderate as described for motorized recreation (CA-1) and camping (CA-2).

Pedestrian activity in the HCP area can reduce the quality of some SNPL habitat used for nesting or wintering activities. SNPL may continue to use areas that are heavily used by humans, but productivity may continue to be limited in these areas. Therefore, the risk of impact is moderate. Overall, with the implementation of AMMs, the habitat impact is minor.

Conclusion: Results in a minor level of lethal take impacts. Results in a minor to moderate level (depending on the intensity, duration, and frequency of activity) of

non-lethal take impacts. Results in a moderate level of indirect lethal take impacts. Results in a minor level of habitat impacts.

Fishing (CA-5). Impacts to SNPL from fishing activity are described in HCP section 4.3.1.1.5. Fishing impacts on SNPL are similar to effects from pedestrians (CA-3). Effects are more limited to the shoreline areas where foraging occurs rather than in beach nesting areas. As a result, lethal impacts to SNPL likely do not occur from fishing activities.

People fishing generally occupy the shoreline for longer periods than pedestrians passing through. Although SNPL appear to avoid foraging near fishing activity, chicks and adults could be deterred from foraging during the duration of the fishing activity. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. SNPL chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather. CDPR implements all AMMs listed above for pedestrians and SNPL AMM 51 to reduce effects on SNPL. Therefore, the risk of impact is low, and the non-lethal impact is minor. This trend is expected to continue in the future.

Increased predation on SNPL can result from visitor trash or discarded fishing bait as described above for motorized recreation (CA-1) and camping (CA-2), although fishing activities are not as popular as motorized recreation, camping, and pedestrian activities. CDPR implements SNPL AMM 52 to reduce the effects on SNPL. Therefore, the risk of the impact is low, and the indirect lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts. Results in a minor level of indirect lethal take impacts.

Bicycling (CA-4), Dog Walking (CA-6), Equestrian (CA-7), Boating/Surfing (CA-8), and Aerial/Wind Driven Activities (CA-9). In accordance with Superintendent's Order 554-003-2015[12], kite flying and kiteboarding are not allowed in areas where chicks are expected to forage (i.e., between Pier Avenue and the southern Oceano Dunes SVRA boundary) or within 1,000 feet of the shoreline during the breeding season. In addition, most of these activities do not occur in areas where SNPL are known to nest; however, if, in the future, SNPL nest in new areas, the cryptic nature of SNPL nests and chicks makes it possible for an active SNPL nest or a chick that is outside the fenced area and not yet identified by monitors to be crushed/killed or injured by pedestrians associated with these activities. CDPR implements SNPL AMMs 1 through 3, 5 through 9, 14 through 16, 21 through 30, and 46 through 50 to reduce the risk of this occurring and there are no records of SNPL chicks or eggs being crushed/killed or injured due to these activities in the HCP area, although any lethal take may be difficult to document. AMMs appear to reduce the risk lethal take and this lethal impact is negligible. This trend is expected to continue in the future.

[12] Superintendent's Orders are subject to change (approximately every 3-5 years); therefore, the numbers and titles associated with the Superintendent's Order will likely change during the HCP term. However, the subject matter will continue to be addressed within the new Superintendent's Orders. In addition, Superintendent's Orders can be updated or added due to new or changed circumstances as part of the adaptive management process (HCP section 5.6).

Dog walking, equestrian recreation, aerial/wind driven activities, and boating/surfing activities have been observed disturbing SNPL during foraging or roosting activities outside the seasonal exclosure in the breeding season and non-breeding season and aerial/wind driven activities sometimes result in disturbance to SNPL foraging or roosting during the non-breeding season. Specifically, SNPL are displaced from foraging or roosting habitat during the period of disturbance. Disturbance can cause SNPL to flush or move from the area, which results in increased vigilance or stress, decreased foraging, and/or decreased brooding (if in the breeding season). Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. These activities could also result in disturbance of any SNPL nesting outside the exclosure and SNPL could be deterred from incubating eggs or brooding chicks. Most disturbances are short in duration and SNPL typically move to other locations to forage and/or roost. In addition, CDPR implements AMMs 53 through 57 to reduce disturbances associated with dog walking and horses. As a result, the risk of impact is low, and this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts.

Holidays (CA-10) and Special Events (CA-11). Impacts to SNPL from holidays and special events are described in HCP sections 4.3.1.1.10 and 4.3.1.1.11. The existing impact of holidays and special events is similar to those of motorized vehicles (CA-1), camping (CA-2), and pedestrians (CA-3). Potential adverse impacts to SNPL from visitor activities may be exacerbated during periods of high visitor use, such as holidays (CA-10) or special events (CA-11). Holidays and special events do not increase the number of day use or camping vehicles or OHV allowed on the beach.

Fireworks are prohibited in the HCP area, however, a once a year the City of Pismo has a fireworks display on July 4 on the Pismo Beach pier. Therefore, during the July 4 holiday, many fireworks spectators congregate in the northern portion of the HCP area, which is over 2 miles from the northern edge of the Southern Exclosure. As a result, the majority of the crowds are located in areas where they are not expected to affect breeding SNPL. However, SNPL are largely precluded from foraging and roosting in areas that are heavily congested during the fireworks displays (e.g., the area north of Grand Avenue). In addition, although fireworks are illegal in the HCP area, illegal fireworks have been regularly observed during the July 4 week in or near SNPL breeding habitat, disturbing nesting, roosting, and/or foraging SNPL, including SNPL adjacent to the seasonal exclosure. Disturbance from fireworks has been observed causing SNPL to flush or move from the area, which results in increased vigilance or stress, decreased foraging, and/or decreased brooding. Therefore, the risk of impact from fireworks is moderate. CDPR implements AMMs addressing holidays (SNPL AMMs 25 through 28 and AMMs 60 through 61), including increasing staff near the Southern Exclosure to minimize illegal firework use. As a result, this non-lethal impact is minor to moderate, depending on the amount of disturbance due to fireworks during the holiday. This trend is expected to continue in the future.

Special events concentrate people in specific locations within the park. Those locations are always within portions of the park that already accommodate daily human activity. Special events also change use patterns and increase visitation on days that might normally not be at capacity. The risk of special events impacting SNPL depends on the location and timing of the special event. Special events require a permit from the District and are subject to

conditions that protect the environment, such as demarcation of the event area, biological monitors, and trash control (SNPL AMMs 62 and 63). Specific special event AMMs are based on past experience and dependent on the event location, timing, and potential to impact covered species like SNPL. Currently, this non-lethal impact is considered moderate to minor, depending on the location and type of special event. This trend is expected to continue in the future.

Recreational activity in the HCP area can reduce the quality of some SNPL habitat used for nesting or wintering activities. This can be especially true during holidays and/or special events. SNPL may continue to use areas that are heavily used by humans, but productivity may continue to be limited in these areas. Therefore, the risk of impact is moderate. Overall, with the implementation of AMMs, the habitat impact is minor to moderate, depending on the location and duration of the activities.

Conclusion: Results in a minor to moderate level (depending on the intensity, duration, and frequency of activity) of lethal and non-lethal take impacts. Results in a minor to moderate level of habitat impacts.

SNPL Critical Habitat

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activity (CA-3), Holidays (CA-10), and Special events (CA-11). In the final rule designating SNPL critical habitat in the HCP area, the Service acknowledged that portions of Oceano Dunes SVRA have been degraded by recreation activities. The Service noted use of an area for recreational activities does not preclude the use of the area by SNPL.

While some covered activities have been occurring for much longer, almost all of the covered activities have been occurring in the HCP area for over 20 years, including at the time when the Service designated SNPL critical habitat. For example, at least some covered activities currently occur within and would continue to occur within almost all of the 780 acres of SNPL critical habitat in the HCP area. These activities are conducted in the same manner as they were conducted at the time critical habitat was designated. Within the critical habitat, 356 acres of critical habitat continue to be open to motorized recreation and camping at least part of the year. Approximately 254 acres open to motorized recreation continue to be closed via seasonal exclosures to motorized activities during the SNPL and CLTE breeding season.

As stated in the critical habitat designation for SNPL, ongoing recreational use in the SVRA may continue to reduce the quality of designated SNPL critical habitat for nesting or wintering activities in OHV areas. Critical habitat subject to ongoing recreation, such as camping, beach play, or fishing, outside the SVRA, but within the HCP area may also continue to reduce the quality of designated SNPL critical habitat for nesting and wintering activities. Of the three physical and biological features identified in critical habitat unit CA 31 (1. Wind-blown sand dunes; 2. areas of sandy beach above and below the high-tide line with occasional surfcast wrack supporting small invertebrates; 3. and generally barren to sparsely vegetated terrain), areas of barren to sparsely vegetated terrain and areas of sandy beach above and below the high tide line with occasional surfcast wrack supporting small invertebrates would continue to be impacted.

SNPL have continued to use areas that are heavily used by humans, despite the impacts to foraging and productivity from OHV use. Heavy recreational use in critical habitat was

occurring within the HCP area at the time critical habitat was designated, and the Service anticipates the existing level of impact would continue. While recreational activities impact nesting and foraging habitat, implementation of the conservation program has resulted in one of the largest and most productive breeding populations of SNPL in the range. Continued implementation of the conservation program, through the long-term commitment in the HCP, would preserve the functionality of critical habitat at Oceano Dunes, as evidenced by growth of SNPL population size and productivity over nearly 20 years. Therefore, the Service considers this impact to be minor.

Conclusion: Results in minor impacts to critical habitat.

Natural Resources Management

SNPL and CLTE Management (CA-12a and CA-12b). Impacts to SNPL from these management activities are described in HCP section 4.3.1.2.2 and section 4.3.1.2.3. Existing SNPL and CLTE management activities include surveying, monitoring, banding, predator control, habitat enhancement, and erecting fencing and exclosures. Injury or morality can result from monitors or their vehicles accidentally crushing nests, although this has not been documented within the HCP area to date and the risk is considered low. CDPR implements AMMs (e.g., SNPL AMM 72 and 84) to reduce the potential for lethal impacts. As a result, lethal impacts associated with monitoring activities are considered minor. This trend is expected to continue in the future.

Monitors have caused temporary disturbance to SNPL during fence installation and maintenance, surveys, banding, habitat enhancement, and other monitoring activities. At times, this disturbance has resulted in chicks leaving the protection of the seasonal exclosure and entering the open riding area where they are vulnerable to vehicle strike and/or chicks moving into the territory of another nest and being attacked or chased out by the attending adult. CDPR implements AMMs (e.g., SNPL AMM 71 and 72) to reduce the risk of a chick being flushed into the open riding area or the territory of another nest. As a result, lethal impacts associated with monitoring activities are not thought to occur and are considered negligible. However, some disturbance does occur during monitoring activities due to the nature of the activities. With implementation of AMMs, non-lethal impacts are considered moderate. This trend is expected to continue in the future.

Fences placed in otherwise open habitat can be hazardous to flying birds. Shorebirds have been observed being killed upon striking cable (symbolic) fences at other sites (Page, et al. 2002). Although infrequent, monitors at Oceano Dunes SVRA have observed SNPL striking the seasonal exclosure fence while flying (CDPR 2014). In 2015, CDPR placed brightly colored strips of fencing along sections of the Southern Exclosure to increase the visibility of the exclosure fence. The strip of fencing was attempted as an experiment in 2015 and was placed on the western and northern Southern Exclosure fence in 2016 with favorable results. CDPR will continue to implement this program by lining the top of the Southern Exclosure fence with a strip of thicker plastic fencing (orange silt construction fencing cut into approximately 1-foot sections) in March of each year, covering most of the western and northern Southern Exclosure fenced areas. If staff resources are available, some of the eastern fenceline and bumpout fencing will also be lined with this strip fencing. Therefore, it is anticipated the visible fencing will continue to reduce the likelihood of a SNPL striking a fence in areas where it is installed. SNPL are known to nest in the Oso Flaco area and can still strike symbolic fencing in this area. However, this event has rarely been documented

since the implementation of the SNPL and CLTE management program. As a result, this event will continue to be rare. Overall, the seasonal exclosure fence is an important protective measure that has increased SNPL reproductive success in the HCP area. Therefore, the seasonal exclosure fence will continue to be used despite the potential for birds to strike the fence.

Installation of SNPL single-nest exclosures can be disruptive to SNPL and adults are sometimes displaced from incubation for the duration of the exclosure construction. Single-nest exclosures also pose a risk to incubating adult SNPL because they can increase the likelihood that predators will key onto the exclosure and prey on the attending adults. CDPR implements AMMs (SNPL AMMs 66 through 72 and 86 through 88) to reduce these impacts. However, some lethal (injury or mortality) take of SNPL has occurred in the HCP area from SNPL striking the symbolic fence and seasonal exclosure and from predation at the single-nest exclosures (see EIR Table 6-8). As a result, this lethal impact is moderate. This trend is expected to continue in the future.

Currently take of SNPL associated with banding occurs under an existing 10(a)(1)(A) permit authorization from the Service. Take associated with banding is associated with the capture of the SNPL chicks and is non-lethal, although injury or mortality can occur during banding. The non-lethal impact from capture associated with banding is moderate. CDPR implements AMMs (SNPL AMMs 80 and 81) to minimize the risk of injuries or mortalities occurring during banding and this rarely, if ever occurs. As a result, the lethal impact from banding is negligible. This trend is expected to continue in the future.

Within the HCP area, cameras are sometimes installed at SNPL nests to document nest predators. Cameras have been effective for identifying nest predators in other locations in California (Demers and Robinson-Nilsen 2012). While they collect useful data on nesting SNPL, cameras that are used to monitor nests need to be maintained, which can cause additional disturbance when the monitors approach the cameras to maintain them. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. Cameras have not been observed influencing nest success in the HCP area to date. To ensure effects from cameras are minimized, CDPR will also continue to implement the SNPL and CLTE management program, which includes AMMs to be implemented while using still or video cameras, such as training monitors on how to install cameras, not installing cameras when the wind speed is above 15 that are readily visible to the public. As a result, the risk of lethal and non-lethal impacts of using cameras near SNPL nests are moderate, but because impacts have not been observed in the past and with the implementation of AMMs, the impacts are considered minor. This trend is expected to continue in the future.

Collecting SNPL chicks and eggs as part of the ongoing salvage and rescue activities in the HCP area (AMM 90) requires handling chicks and/or eggs to relocate them to an authorized wildlife facility[13]. This activity can also 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

[13] Impacts associated with the proposed new activity SNPL egg and chick capture for captive rearing if observed to be threatened by recreation activities and other non-covered species management activities (AMM 22) is included under ITP Covered New Activities below.

outcome, 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 2010)]. In the past, approximately 112 eggs and 52 chicks within the HCP area have been salvaged when they were found abandoned or injured. A portion of these individuals have 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, salvaging SNPL eggs and chicks will continue to be beneficial to the individuals removed, which—if they go on to breed—would benefit SNPL overall.

Based upon many years of implementation, the monitoring data presented in the HCP demonstrate these management activities have a beneficial effect that exceed the risk level of take and have increased SNPL reproductive success in the HCP area. Therefore, the overall existing impact of SNPL and CLTE management activities on SNPL is beneficial. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal and non-lethal take impacts. Overall beneficial impacts.

<u>Tidewater Goby and Salmonid Surveys (CA-13), CRLF Surveys and Management (CA-14), Listed Plant Monitoring, Propagation, and Habitat Enhancement (CA-15), Invasive Plant and Animal Control (CA-17), and Water Quality Monitoring (CA-19)</u>. Tidewater goby and salmonid surveys already occur approximately four times per year in Arroyo Grande Creek and lagoon and at least annually in Pismo Creek and lagoon/Carpenter Creek and Oso Flaco Creek. CRLF surveys occur multiple times per year between January and September, including numerous daytime and nighttime surveys within appropriate aquatic habitats (e.g., Arroyo Grande Creek, Oso Flaco Lake, Oso Flaco Creek, Pismo Creek, Carpenter Creek). The District also already manages and restores vegetation in the HCP area, monitors water quality, and conducts invasive species control in the HCP area, as determined to be necessary. The activities occur by CDPR staff who are trained in avoidance and minimization protocols. As a result, these activities do not modify SNPL habitat and have not been documented as resulting in lethal take.

These activities have resulted in non-lethal impacts to SNPL. Although most of these activities do not occur in areas where SNPL are known to nest, listed plant monitoring occurs in North and South Oso Flaco during the breeding season and could disturb nesting SNPL and deter them from incubating eggs or brooding chicks during the period of disturbance. In addition, SNPL have been known to nest near Arroyo Grande Creek; therefore, tidewater goby and salmonid surveys and CRLF surveys and management can disturb nesting SNPL if they nest at Arroyo Grande Creek. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. All of these activities can disturb foraging or roosting SNPL by displacing them from foraging or roosting habitat during the period of disturbance and/or deterring them from foraging or roosting during the period of disturbance. Prolonged disturbance can eventually lead to stress, reduced foraging

success, emaciation, or even death. CDPR staff implements AMMs, including, but not limited to, SNPL AMMs 90 through 98 to minimize any impacts to SNPL. Therefore, the non-lethal impact to nesting, foraging, and/or roosting SNPL is considered minor. This trend is expected to continue in the future.

Invasive plant and animal control activities in the HCP area are beneficial to SNPL since it removes non-native species and improves the quality of habitat.

Conclusion: Results in a minor level of non-lethal take impacts. Results in a beneficial impact from invasive plant and animal control.

HMS (CA-18). Impacts to SNPL from HMS activities are described in HCP section 4.3.1.2.9. During the breeding season monitors conduct three surveys for birds within and along the shoreline of the seasonal exclosure and elsewhere in the HCP area. Lethal impacts have not been documented to date with the implementation of AMMs.

These surveys have a high likelihood of disturbing nesting or brooding SNPL. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. CDPR implements SNPL AMMs (HCP Table 5-2) as appropriate, such as having a monitor with 10(a)(1)(A) Recovery Permit (or approved by the Service) conduct the surveys near the seasonal exclosure, to minimize the risk of non-lethal take. As a result, the non-lethal impact is minor. This trend is expected to continue in the future.

Based upon many years of implementation, the monitoring data presented in the HCP demonstrate the information collected as part of these surveys have a beneficial effect that exceed the risk level of take. Therefore, the overall existing impact of the HMS on SNPL is beneficial. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impacts.

Park Maintenance

General Facilities Maintenance (CA-21) and Heavy Equipment Response (CA-29). Impacts to SNPL from general facilities maintenance and heavy equipment response are described in HCP section 4.3.1.3.2 and section 4.3.1.3.10, respectively. General facilities maintenance and heavy equipment response currently occur as needed in the HCP area, except for mechanical trash removal, which is described in more detail below in Effects of ITP Covered New Activities on SNPL. Park maintenance vehicles can injure or kill SNPL adults, juveniles, or chicks. Park maintenance vehicles, equipment, or workers can also accidentally crush nests. This has not been documented in the HCP area. CDPR also implements SNPL AMMs 99 through 102 to reduce the risk of park maintenance vehicles or equipment striking a SNPL or crushing a nest and these AMMs appear to reduce lethal impacts from these activities, although some lethal take may still occur when park maintenance vehicles or equipment drive along the shoreline where SNPL are foraging and may not be observed. As a result, the risk of the impact is low, and this lethal impact is considered minor. This trend is expected to continue in the future.

General facilities maintenance activities and heavy equipment response can adversely affect SNPL in the HCP area by disturbing nesting, brooding, roosting, or foraging SNPL, which can result in stress, reproductive failure, reduced foraging, or illness. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. In many cases, such impacts are generally short in duration and relatively infrequent; however, at times these disturbances can last for longer periods. CDPR implements SNPL AMMs 99 through 102 to specifically address general facilities maintenance activities and similar AMMs are applied to heavy equipment response. These AMMs reduce the risk of general maintenance activities or heavy equipment response disturbing SNPL; however, some disturbance still occurs. As a result, this non-lethal impact is minor to moderate depending on the frequency, intensity, and type of disturbance. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal take impacts. Results in a minor to moderate level (depending on the intensity, duration, and frequency of activity) of non-lethal take impacts.

Trash Control (CA-22). Impacts to SNPL from trash control activities are described in HCP section 4.3.1.3.3. Dumpsters are emptied in the HCP area every week. Other garbage bins are emptied regularly, including within Pismo State Beach and along various creeks. Vehicles driving to the trash bins have are not known to have struck an SNPL to date and the risk of a vehicle striking a SNPL adult, juvenile, or chick or crushing a nest during trash control activities is considered low with the implementation of SNPL AMMs 99 through 102. As a result, this lethal impact is negligible. This trend is expected to continue in the future.

Trash dumpsters attract a large number of gulls that land and forage in the dumpsters if they are left uncovered. As a result, the continued use of the uncovered trash bins within or near SNPL breeding habitat artificially increases the number of predatory species, including gulls, and thus increases depredation of SNPL. Increasing the number of trash bins on holidays and during special events to accommodate the increased number of visitors also artificially increases the number of predators at these times and increases depredation of SNPL. To reduce these impacts, CDPR is evaluating several options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites. CDPR also implements a predator management program to ensure depredation of SNPL is minimized. Reducing predator presence near the dumpsters and limiting the movement of trash from the dumpsters reduces the risk of predation on SNPL. However, the existing indirect lethal impacts due to predation as a result of trash control is moderate. This trend is expected to continue in the future. However, a solution to reduce the movement of trash in the future could reduce this impact further.

Conclusion: Results in a moderate level of indirect lethal take impacts. Overall, slight beneficial impact.

Cable Fence Maintenance (CA-28). Park maintenance vehicles, equipment, or workers can accidentally crush nests. However, this has not been documented in the HCP area. Cable fence maintenance occurs by CDPR staff who are trained in avoidance and minimization

protocols, and CDPR implements SNPL AMMs 99 through 102 to reduce the risk of maintenance vehicles or equipment striking a SNPL or crushing a nest. These AMMs appear to reduce lethal impacts from these activities, although some lethal take may still occur when park maintenance vehicles or equipment drive along the shoreline where SNPL are foraging and may not be observed. As a result, the risk of this impact is low, and this lethal impact is minor. This trend is expected to continue in the future.

Cable fence maintenance activities can disturb foraging or roosting SNPL by displacing them from foraging or roosting habitat during the period of disturbance and/or deterring SNPL from foraging or roosting during the period of disturbance. However, these activities are typically localized and relatively short in duration. In addition, work does not occur if SNPL are present in the area. With the implementation of AMMs, the risk of this occurring is low, and the non-lethal impact is negligible. This trend is expected to continue in the future.

Cable fence maintenance can modify SNPL foraging habitat and deter SNPL from foraging in the area if sand is pushed out of the cable fence area into foraging habitat. This has been observed in the HCP in the past. However, additional foraging habitat is present along the HCP area shoreline, including within the protected exclosure area. This habitat modification impact is negligible. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal take impacts.

Visitor Services

Ranger, Lifeguard, Park Patrols (CA-32). Regular ranger and park aide patrols occur throughout the HCP areas open to the public to ensure that visitors are obeying regulations. Patrols are largely conducted via vehicles. Lifeguards perform their services at their assigned lifeguard towers and on roaming patrols that extend from Pismo State Beach to the southern open riding area boundary. Lifeguard towers are installed seasonally around spring break. Tower sites are subject to change but are currently near Grand and Pier Avenues and the North Beach Campground. CDPR rangers, lifeguards, and park aides all must drive across Arroyo Grande Creek and Pismo Creek, when necessary. Impacts from crossing creeks are described in more detail under CA-40 below.

Ranger, lifeguard, and park patrol activities occur by CDPR staff who are trained in avoidance and minimization protocols. Ranger and patrol vehicles have struck SNPL in the past; however, this has not been documented since 2002 and given the increased AMMs, such as SNPL AMM 99, that requires staff training, and SNPL AMM 100, that requires all CDPR staff observe closures and speed limits, vehicle strike is not expected to occur. As a result, this lethal impact is negligible. This trend is expected to continue in the future.

Ranger and patrol activities do not occur in areas where SNPL are known to nest; however, if SNPL nest in new areas these activities could result in disturbance of nesting SNPL and SNPL could be deterred from incubating eggs or brooding chicks. These activities can also result in disturbance of SNPL during foraging or roosting if ranger and patrol activities occur in areas where SNPL are foraging or roosting. Specifically, SNPL can be displaced from foraging or roosting habitat and/or can be deterred from foraging or roosting during the period of disturbance. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. These activities are typically localized and relatively short in duration. In addition, SNPL AMMs are implemented, as appropriate, including establishing a buffer around all SNPL nests (AMM6) and requiring all CDPR staff

to observed closures (AMM 100). Therefore, the risk of this impact is low, and this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts.

Emergency Response (CA-33) and Access by non-CDPR vehicles (CA-34). Emergency response and access by non-CDPR vehicles occurs within the HCP area as needed. Impacts to SNPL from emergency response and non-CDPR vehicles are described in HCP section 4.3.1.4.2 and section 4.3.1.4.3, respectively. Impacts from emergency activities are not known and have not been documented, although these impacts are difficult to document because they may occur without being observed. Impacts to SNPL from emergency response and non-CDPR vehicles are generally similar to park maintenance activities, although CDPR emergency responders sometimes have to travel quickly through areas where SNPL are present and non-CDPR emergency personnel are not always trained before entering an area.

SNPL foraging or roosting along the shoreline and not protected by an exclosure can be struck by a speeding emergency vehicle, which can occur during the breeding or non-breeding season. In addition, a nest outside the exclosure that has not yet been discovered by monitors can be crushed by a speeding emergency vehicle during the breeding season. An emergency vehicle has not been observed striking a foraging or roosting SNPL or crushing a SNPL nest in the HCP area to date; however, this event may be difficult to observe. Therefore, although unlikely, it is possible for a roosting or foraging SNPL or a SNPL nest to be struck by an emergency vehicle. As a result, this lethal impact is moderate. This trend is expected to continue in the future.

Medevac helicopters are also sometimes used in the HCP area during emergencies. Medevac helicopters flying low over or landing within occupied SNPL habitat can cause significant disturbance to nesting and/or brooding SNPL. The noise from the helicopter can be highly disruptive to SNPL and the helicopter itself may be seen as a threat. Adults may flush from the nest and leave the eggs unattended. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. In addition, helicopters can lead to increased vigilance in adults, which can lead to them being energetically stressed or to reduce foraging. However, helicopter activity in the HCP area is an infrequent event, especially in areas where SNPL typically nest. Therefore, the risk of this impact occurring is low and the non-lethal impact is minor. This trend is expected to continue in the future.

Emergencies that occur within a seasonal exclosure can be highly disruptive to SNPL as adults may flush from the nest and leave the eggs unattended for the duration of the disturbance. SNPL nests or chicks may be abandoned if the adult is injured, killed, or disturbed enough it does not return to the eggs or chick. In addition, SNPL chicks that are out in the open may be separated from adults during the disturbance, which can leave them vulnerable to predation and/or inclement weather. Disturbance can also separate broods, cause the chicks to move into the open riding area, and/or expose chicks to inclement weather. Although emergency response has occurred within the seasonal exclosure, such events are rare and do not occur in most years. In addition, monitors inform emergency responders of the locations of sensitive areas and escort emergency response personnel

into and out of the seasonal exclosure to minimize the potential for vehicle strike, when feasible. Monitors also attempt to survey the area once the emergency has resolved and all emergency personnel are clear in order to document and alleviate any impacts that occurred. Due to event infrequency, short-term duration of disturbance, and use of monitors (as feasible), the risk of this impact occurring is low and the non-lethal impact is considered minor. This trend is expected to continue in the future.

Emergency response also disturbs and/or deters foraging SNPL when they drive past, and they can become malnourished if the disturbance is prolonged. However, typically, emergency response drives through an area quickly. In addition, adequate alternative foraging habitat is present in the HCP area for SNPL, including during the non-breeding season. As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal take impacts. Results in a minor level of non-lethal take impacts.

Beach Concessions (CA-36). Concession operated services occur throughout the open riding area away from the seasonal exclosure. These services have not been observed impacting nesting SNPL. During the non-breeding season, SNPL have been observed roosting and foraging along the shoreline south of Grand Avenue, which is open to street-legal vehicles. Vehicles driving to and from the concession services can strike SNPL. In addition, vehicles driving through the area can disturb individual SNPL in this area by flushing them from their location and causing them to become energetically stressed. CDPR implements SNPL AMM 111, which requires all concessionaires to receive a training on SNPL, to reduce any impacts to SNPL. However, although unlikely, SNPL may still be killed/injured by vehicles driving to and from the concession services. As a result, the lethal impact is minor. In addition, SNPL are likely still flushed by vehicles driving to and from the concession services. On busy days, this disturbance may occur frequently and result in vigilance or stress. As a result, this non-lethal impact is moderate. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal take impacts. Results in a moderate level of non-lethal take impacts.

Other Activities

Vehicle Crossing of Creeks (CA-40). CDPR vehicles regularly cross Pismo/Carpenter Creek. CDPR vehicles sometimes cross Oso Flaco Creek close to shoreline to access the southern portion of the HCP area. CDPR and non-CDPR vehicles also regularly cross Arroyo Grande Creek. SNPL have been known to nest near Arroyo Grande Creek. Vehicle crossing of Arroyo Grande Creek have disturbed nesting, foraging, and roosting SNPL at Arroyo Grande Creek. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather. In addition, vehicles crossing CDPR vehicles crossing Oso Flaco and Pismo/Carpenter Creek could disturb wintering foraging and roosting SNPL. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. All CDPR staff are trained in avoidance and minimization measures, including SNPL AMMs 99 through 102. As a result,

the risk of this impact is low, and the non-lethal impact is minor. This trend is expected to continue in the future.

A vehicle has not been observed striking a nesting SNPL near Arroyo Grande Creek to date. However, although unlikely, a vehicle crossing Arroyo Grande Creek could injure or kill a SNPL. A vehicle strike/crush a SNPL nest is unlikely because any vehicle crossing of the creek remains close to the shore where SNPL are not expected to nest. A vehicle crossing a creek can injure or kill a SNPL adult, juvenile, or chick foraging in the area; however, CDPR implements SNPL AMMs 4, 8, 10, 14, 15, 17, 18, 20, 21, 22, and 23 to reduce this impact. As a result, lethal impacts from vehicles crossing Arroyo Grande Creek are considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Dust Control Activities (CA-44). Many dust control projects have already been conducted in the HCP area, as described in HCP Section 2.2.5.5. Impacts associated with future dust control activities are discussed below under Effects of ITP Covered New Activities on SNPL. Dust control activities associated with the Oceano Dunes SVRA Dust Control Program Environmental Impact Report (EIR; CDPR 2017) conducted to date required pre-work surveys for all special-status wildlife, removal of species from work areas, and avoidance of nesting birds, including a 300-foot buffer from nesting SNPL. As a result, the lethal or non-lethal impact from dust control activities associated with the Dust Control Program EIR likely did not occur and the impact is negligible.

Dust control vegetation that has been planted in the HCP area, and to a lesser degree wind fencing, installed near known SNPL breeding, roosting, and/or foraging habitat may have impacted breeding SNPL by providing habitat for predators to hide and stalk nesting, foraging, and/or roosting SNPL. In addition, protective perimeter fence posts, wind fencing, and some temporary dust and meteorological monitoring equipment may be tall and sturdy enough to provide perching habitat for common ravens, gull species, raptors, or other avian species that may have preyed on SNPL nests. At this time, the actual indirect impacts that have occurred from dust control activities are not known. CDPR implements all AMMs (HCP Table 5-2) for dust control activities, as appropriate. 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. The existing indirect lethal impact of existing dust control activities on SNPL is considered minor.

Vegetation that has been planted in the HCP area within SNPL habitat associated with dust control activities reduces available suitable SNPL breeding and/or wintering habitat by decreasing the amount of open, wide beaches. Reducing SNPL habitat by planting vegetation in suitable habitat leads to less open (or wide), sparsely vegetated beaches and may potentially increase predation on adults, chicks, and/or eggs if SNPL are not able to detect predators moving towards the nest location. Dust control activities associated with the Oceano Dunes SVRA Dust Control Program EIR were designed and implemented to avoid active nest areas and SNPL primary habitat/critical habitat. Most existing dust control activities occurred within tertiary habitat where SNPL have rarely nested in the past. However, some secondary habitat was lost. As a result, the habitat impacts are considered moderate.

A 48-acre area located outside the seasonal exclosure just north of Post 6 and within primary habitat for SNPL was fenced in December 2019 as a preliminary step toward establishing a new foredune and permanently closing the area to vehicles and camping. The area was subsequently planted in February 2020 with vegetation test plots [see discussion in Dust Control Activities (CA-44) – New PMRP]. In March 2020, Oceano Dunes was closed to public vehicular access as part of State and local directives to shelter at home due to COVID-19. State Parks documented several SNPL nests and one CLTE nest initiated in the vegetated foredune area closed for dust abatement and protected these nests as per their management protocols. Effects of fencing the 48-acre area on wintering SNPL are discussed below. The impacts of the 48-acre fenced area on breeding SNPL are addressed under Effects of ITP New Covered Activities.

Lethal impacts to wintering SNPL did not occur during fence installation. Installing fencing around the 48-acre area may have disturbed 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 period of disturbance. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. However, CDPR conducted pre-construction surveys for SNPL prior to starting work and delayed activity until SNPL were no longer present (SNPL AMM 101). In addition, SNPL likely moved from the area and foraged in suitable habitat free of disturbance. As a result, potential non-lethal impacts to foraging and/or roosting SNPL from foredune construction were negligible.

Conclusion: Results in a minor level of indirect lethal take impacts. Results in a moderate level of habitat impacts.

Effects of ITP Covered New Activities on SNPL

The following activities proposed for take coverage under the ITP are new visitor use or park operation activities occurring within the HCP area. No major impacts from new covered activities on SNPL have been identified. New covered activities described below result in take of SNPL. The risk of impact to SNPL from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in take of SNPL (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered new activities occurring outside of SNPL habitat areas have no or negligible risk of impacting SNPL and are dismissed from further discussion. ITP covered new activities with no or negligible impact to SNPL include riding in 40 Acres (CA-42) and Oso Flaco boardwalk replacement (CA-48).

Minor to Moderate Impacts

Natural Resources Management

SNPL/CLTE Management (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. SNPL chick and egg capture would require the handling of chicks and/or eggs to transfer them to an authorized wildlife facility. This activity would also 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. Furthermore, any eggs or chicks that did survive would potentially be removed from the local population. 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 conservation success since otherwise the eggs or chicks would not have survived (Neuman, et al. 2013) (Roche, Cuthbert and Arnold 2010). In the past, approximately 112 eggs and 52 chicks within the HCP area have been salvaged when they were found abandoned or injured. A portion of these individuals have survived to fledging age in a captive-rearing facility. These fledglings have been banded and released back into the wild SNPL population, and many have been documented as breeding, although not necessarily within the HCP area. As a result, capturing SNPL eggs and chicks for captive rearing would result in a minor level of lethal and non-lethal impacts but would ultimately be beneficial to any SNPL chicks and eggs removed since otherwise the eggs and chicks would not have survived.

Conclusion: Results in a minor level of lethal and non-lethal take impacts. Overall beneficial impact.

SNPL/CLTE Management (CA-12b) – SNPL Adult Banding. Currently, adult SNPL are not banded in the HCP area; however, the District may request permission from the Service to band adults at a later date. Banding adults could pose moderate 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, a master bander would be used to band any SNPL in the HCP area. In addition, monitors and master banders would be required to have a 10(a)(1)(A) Recovery Permit and/or be approved by the Service 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. As a result, the lethal impact from banding adults would be negligible and the non-lethal impacts from banding adults would be minor. Ultimately, banding SNPL adults would provide beneficial information on adult mortality/survival, as well as population status and distribution.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impact.

Park Maintenance

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 500 feet of known nesting areas (i.e., from Post 6 south) 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 104 through 109, which include surveying the area for SNPL presence prior to raking and use of a biological monitor.

Implementation of these measures would substantially reduce and minimize the potential for lethal take of SNPL from equipment operation and the lethal impact would be negligible.

Mechanical trash removal activities would not be conducted within 500 feet of any known SNPL nesting area (e.g., the seasonal exclosure, bumpouts, and individual nest exclosures) and is therefore unlikely to disturb nesting 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 disturbed by the activities and/or precluded from foraging and roosting in these areas. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. SNPL AMMs 104 through 109 would be implemented to reduce the disturbance-related impacts on foraging and/or roosting wintering SNPL. As a result, mechanical trash removal would have a negligible non-lethal impact on foraging or roosting SNPL.

Mechanical trash removal would not be conducted within 500 feet of the seasonal exclosure area during the breeding or non-breeding season; therefore, SNPL habitat in the seasonal exclosure would remain undisturbed by mechanical trash removal year-round. In addition, mechanical trash removal would not be conducted at or below the active wrack line; therefore, SNPL foraging habitat along the shoreline would not be impacted. Although mechanical trash removal would not occur within 500 feet of the seasonal exclosure, mechanical trash removal could affect favorable SNPL nesting habitat (i.e., primary and secondary habitat) outside of the seasonal exclosure by altering dune composition and topography. However, most mechanical trash removal would be conducted in areas where recreation activities have been concentrated and the substrate is already highly disturbed. These areas are unlikely to support the appropriate SNPL nesting habitat due to the high level of recreation; therefore, SNPL are not expected to nest in the areas where mechanical trash removal would typically occur. As a result, mechanical trash removal would have a negligible impact on active SNPL nesting habitat.

Although mechanical trash removal would occur above the active wrack line, mechanical trash removal during the summer could remove scattered debris (e.g., driftwood and kelp) from the previous winter wrack line still present in the beach area above the active wrack line, which is likely important habitat for wrack-associated beach invertebrates. If mechanical trash removal occurs frequently, 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. CDPR will implement AMM 109 that includes studying the impact of mechanical trash removal on wrack-associated invertebrates. If a significant decline in invertebrates is observed, CDPR would implement additional measures to reduce the impact, such as conducting habitat enhancement in mechanical trash removal areas, reducing the frequency of mechanical trash removal, and/or reducing the mechanical trash removal locations. As a result, lethal impacts of mechanical trash removal on wintering SNPL by impairing foraging opportunities and the quality of their habitat would be minor.

Conclusion: Results in a minor level of lethal take by impairing foraging opportunities and quality of habitat. Results in a minor level of habitat modification impacts.

SNPL Critical Habitat

General Facilities Maintenance (CA-21) – Mechanical Trash Removal**.** Mechanical trash removal could occur within SNPL critical habitat that is outside the seasonal exclosure. Mechanical trash removal would not be conducted at or below the active 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 this wrack line.

Mechanical trash removal could remove favorable constituents within SNPL nesting habitat (i.e., primary and secondary habitat) outside the seasonal exclosure by altering dune composition and topography. Specifically, mechanical trash removal could reduce microtopography and organic surface materials (e.g., driftwood) 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. These areas only support 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), and SNPL are not currently known to nest in these areas. CDPR also implements habitat enhancement (CA-12b), which helps offset the impacts of vehicle activity occurring in the exclosure area during the winter and is also expected to offset some impacts of mechanical trash removal on breeding SNPL to ensure that favorable nesting habitat remains in the HCP area despite these covered activities. Specifically, the habitat enhancement activity includes collecting wrack and placing it on the shoreline of the Southern Exclosure at the beginning of the breeding season to provide cover for nesting SNPL and inoculating the wrack with talitrids (commonly called beach hoppers) to ensure a sustainable population of wrack-associated invertebrates, which are SNPL prey, are present in main SNPL breeding and foraging area (i.e., the exclosure area).

Although mechanical trash removal would occur above the active wrack line, mechanical trash removal during the summer could remove scattered debris (e.g., driftwood and kelp) from the previous winter wrack line still present in the beach area above the active wrack line, which is likely important habitat for wrack-associated beach invertebrates. If mechanical trash removal occurs frequently, 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. While CDPR implements habitat enhancement (CA-12b) that ensures a sustainable population of wrack-associated invertebrates (SNPL prey) are present in main SNPL breeding and foraging area, it has minimal benefit to invertebrate populations in active mechanical trash removal areas. As a result, a reduced prey source in mechanical trash removal areas may not impact SNPL during the breeding season due CDPR's habitat enhancements but could impact wintering SNPL when habitat enhancements are not provided. CDPR would implement AMM 109 to study the impact of mechanical trash removal on wrack-associated invertebrates. If a significant decline in invertebrates is observed, CDPR will implement additional measures to reduce the impact, such as conducting habitat enhancement in mechanical trash removal areas, reducing the frequency of mechanical trash removal, and/or reducing the mechanical trash removal locations.

Heavy recreational use in critical habitat was occurring within the HCP area at the time critical habitat was designated, and the Service anticipates a similar level of impact would continue with mechanical trash removal. Though mechanical trash removal may alter dune topography and reduce food resources, implementation of habitat enhancement and

adaptive management would preserve the overall functionality of critical habitat at Oceano Dunes as an important breeding and wintering area and would not alter the condition of critical habitat as a whole. Therefore, the Service considers this impact to be minor.

Conclusion: Results in a minor level of impacts to critical habitat.

Other Activities

Pismo Creek Estuary Seasonal Floating Bridge (CA-41). Direct mortality of SNPL eggs, chicks, juveniles, and/or adults from bridge construction or use would not occur. The bridge is located outside of SNPL breeding habitat and would not be expected to disturb nesting SNPL. SNPL could forage or roost near the bridge location; therefore, visitor bridge use could disrupt foraging or roosting SNPL and displace SNPL from foraging or roosting habitat and/or deter them from foraging or roosting in the area during the disturbance. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. AMM 114 would close the bridge to public use until the birds have left the area if visitor activities are significantly disrupting SNPL foraging and/or roosting behavior. With implementation of this measure, the non-lethal impact to SNPL would be minor.

Conclusion: Results in a minor level of non-lethal take impacts.

Dust Control Activities – New PMRP (CA-44). Impacts to SNPL from dust control activities are described in HCP section 4.3.1.5.5. A description of the impacts associated with dust control activities in primary and secondary habitat follows.

A 48-acre area located outside the seasonal exclosure just north of Post 6 and within primary habitat for SNPL has been fenced as a preliminary step toward establishing a new foredune that would be permanently closed to vehicles and camping. Impacts on wintering SNPL associated with closing the 48-acre area are discussed in Effects of ITP Covered Existing Activities. The 48-acre area received varying test planting treatments in February 2020, and approximately 90 percent of the area has been either planted or seeded with varying levels of resulting coverage density with the remaining 4.4-acre plot left untreated as a control. It is anticipated CDPR will conduct additional planting in the area. Impacts on breeding SNPL from fencing the 48-acre area and all impacts associated with planting the 48-acre foredune are discussed in this section. An additional approximately 4 acres of foredune area are also proposed to be fenced and vegetated as part of the dust control activities. It is assumed that the 4 acres of foredune vegetation would also be outside the seasonal exclosure but within primary habitat for SNPL. The foredune's associated air quality equipment could also be located in primary habitat but would be outside the seasonal exclosure.

Effects of Closing the Foredune Areas to Motorized Recreation and Camping on Breeding SNPL. The 48-acre area is currently open to pedestrians and CDPR staff that need to maintain the area. However, installing the fencing created a 48-acre closed area north of Post 6 that is free from ongoing motor vehicle disturbance. The new 4-acre area would also be closed to camping and vehicles. As a result, the new foredune areas may be conducive to nesting, especially prior to any vegetation being planted, as observed during the 2020 nesting season when several SNPL nests and one CLTE was nest initiated in the area. If a SNPL nest is established outside of the seasonal exclosure in the newly closed areas in the

future, the cryptic nature of SNPL nests and chicks makes it possible for a nest/chick to be crushed/killed or injured if a nest has not yet been identified by monitors. Chicks are especially vulnerable as they move from the nest area to the shoreline, where they may encounter pedestrians and vehicles. In addition, vehicle and/or pedestrian activities occurring adjacent to the newly closed areas, and pedestrian and maintenance activities within the areas, could result in disturbance of nesting SNPL, and SNPL could be deterred from incubating eggs or brooding chicks. However, during the SNPL and CLTE breeding season, CDPR will implement the SNPL and CLTE management program within the closed areas. Monitors will conduct daily searches for nests in the closed areas. Any nests that are found will be protected by a single-nest exclosure, if appropriate, and a buffer zone a minimum of 100 feet will be established around all nests to ensure that recreation and maintenance activities do not encroach on SNPL nests. As a result, lethal impacts to nesting SNPL are expected to be minor.

If a nest is established within the closed areas, any chicks that leave the nest would be vulnerable to injury or mortality as they move from the nest area to the shoreline where they may encounter vehicles. However, CDPR would implement SNPL AMMs, as appropriate, including SNPL AMMs 1 through 30 to reduce the risk of crushing/killing or injuring a nest/chick. These AMMs include monitors observing known nests prior to hatching and posting signs or symbolic fencing to provide safe passage. As a result, the risk of these impacts occurring is low and the lethal impacts would be minor.

SNPL nesting near the fenceline of the 6 Exclosure may be disturbed by vehicles traveling between the 6 Exclosure and southern edge of the new 48-acre area. Although this disturbance can occur under existing conditions, the narrow corridor (potentially between 300 and 400 feet wide) between the northern edge of the 6 Exclosure and the southern edge of the closed area may cause more vehicles to pass closer to the edge of the 6 Exclosure. Chronic disturbance of breeding adults from recreation activities could directly or indirectly affect chicks or eggs. Chicks or nests could be abandoned, left unattended for prolonged periods of time, or exposed to predation. In addition, chicks could be orphaned or inadequately nourished, and eggs could be buried by sand or not properly incubated. To reduce these impacts, CDPR will continue to implement the SNPL and CLTE management program in the HCP area. Specifically, CDPR will continue to conduct daily monitoring to enable better identification of potential threats. If broods are observed to be in harm's way, vehicle traffic flow will be diverted or regulated to allow the safe movement of the brood. In addition, a nest avoidance buffer of a minimum of 100 feet will be used to protect SNPL nests near the fenceline of the 6 Exclosure. The buffer will be increased, as necessary, until monitors observe that SNPL adults are no longer disturbed. As a result, non-lethal impacts to nesting or brooding SNPL associated with recreation travelling between the closed area and the 6 Exclosure are expected to be minor.

The multi-strand metal fencing used to close the 48-acre area and that will be used to close the 4-acre area is similar to fences placed at other vegetation islands. Fences placed in otherwise open habitat can be hazardous to flying birds. Only SNPL nesting within these areas are expected to be at risk of striking the foredune fencing if they fly into the multi-strand fence when leaving a nest for another location. SNPL have not been documented striking other vegetation island fencing, however, and although they have been documented striking the symbolic fence at Oso Flaco, this event has been rare and happened only a few times from 2002 to 2018. As a result, SNPL are very unlikely to strike the foredune fencing, and this lethal impact is considered minor.

SNPL chicks and adults/juveniles have been observed leaving the protection of the seasonal exclosure and entering the open riding area where they are at risk of being struck by a vehicle. Closing areas open to motorized recreation may exacerbate this issue since it limits the open sand areas for motorized recreation to occur and likely results in more vehicles traveling along the shoreline where SNPL chicks are brooded and/or adults and chicks are foraging. Vehicle alleys and other movement pathways in the foredune areas may allow vehicles to travel through this area without impacting SNPL; however, SNPL may also utilize the pathways for travel to the shoreline. As a result, SNPL could be vulnerable to vehicle strike due to the increased presence of vehicles on the shoreline. Chicks would be most vulnerable since they are unable to fly out of harm's way. This could be especially exacerbated in conjunction with the exclosure reduction, which is predicted to result in some adult aggression/density issues and push additional chicks and adults out of the protection of the exclosure into the open riding area. In addition, nests established in the closed areas would be at risk if they hatch and chicks leave the foredune and travel along trails used by motorized recreation in order to reach the shoreline to forage. To minimize the risk of vehicle strike along the shoreline, CDPR will implement SNPL AMMs 1 through 30. These AMMs include implementing SNPL AMM 22, which is a new AMM that establishes a maximum number for egg and chick capture associated with covered activities that are not associated with covered species management (i.e., up to 12 eggs/4 nests and 12 chicks/4 broods). Even with these AMMs, there is likely an increased risk of take associated with closing the 48-acre and 4-acre areas. However, this increased risk of take may be addressed all or in part via implementation of AMM 22 as well as existing AMMs. Capturing eggs or chicks for captive rearing is a form of take, but one that avoids injury, death, or other immediate harm. With these measures, the risk of both non-lethal and lethal take from PMRP dust control activities are reduced, and the impact would be moderate.

Effects of Planting the Foredune Vegetation. Given the need to plant vegetation during the rainy season, vegetation is expected to be installed prior to March 1 (i.e., prior to the start of the SNPL breeding season) or after the season concludes in September, which would not impact nesting SNPL. Should any planting need to occur within the SNPL breeding season (after February 28/29), nest searches would occur before any equipment or personnel moved into the foredune area for planting. Any nests that are found would be protected by a single-nest exclosure, if appropriate, and a buffer zone a minimum of 100 feet would be implemented around the nest. As a result, vegetated foredune construction and planting would have negligible lethal and non-lethal impacts on nesting SNPL.

Foredune vegetation installed within SNPL primary habitat may impact breeding SNPL by providing habitat for predators to hide and stalk nesting, foraging, and/or roosting SNPL. At this time, these indirect lethal (injury, mortality, or harm) impacts from dust control activities are not known. CDPR would implement all SNPL AMMs (HCP Table 5-2) for dust control activities, as appropriate. 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. With these measures, indirect lethal impacts would be minor.

Foredune vegetation installed within SNPL primary habitat would reduce available suitable SNPL breeding and/or wintering habitat by decreasing the amount of open, wide beaches. Any additional vegetation associated with dust control activities within SNPL secondary habitat would further reduce the quality of such habitat and ultimately potentially convert it into tertiary habitat (e.g., vegetated dune). 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); (Patrick and Colwell 2014). Reducing SNPL habitat by planting vegetation in suitable primary and secondary habitat for this species could lead to less open (or wide), sparsely vegetated beaches and could potentially increase predation on adults, chicks, and/or eggs if SNPL are not able to detect predators moving towards the nest location. However, all vegetation installation has been designed to avoid the active nest area, and randomly spaced native foredune vegetation should avoid creating areas of heavy vegetation. CDPR would also implement all AMMs (HCP Table 5-2), as appropriate, to reduce impacts from dust control activities. 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. With these measures, habitat impacts are expected to be moderate.

Activities associated with developing the foredune, such as surface treatment and planting, could disturb foraging and/or roosting wintering SNPL by displacing them from suitable foraging and/or roosting habitat during the disturbance and deterring them from foraging and/or roosting during the disturbance. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. CDPR would conduct pre-construction surveys for SNPL prior to starting work and delay activity until SNPL are no longer present (SNPL AMM 101). In addition, additional suitable SNPL habitat free of disturbance is present in the HCP area. As a result, potential non-lethal disturbance impacts to foraging and/or roosting SNPL from foredune development are not expected and would be minor.

SNPL are present and vulnerable to vehicle strike or disturbance during the non-breeding season. Foraging and roosting wintering SNPL are currently frequently concentrated on the relatively narrow beach between Grand Avenue and Pier Avenue and north of Post 2, where OHV use is prohibited but street-legal vehicles are allowed. Although not as common, some SNPL may roost or forage along the shoreline where the new foredune area has been fenced. Development of the new foredune, and potentially the additional 4 acres of foredune vegetation, would remove some shoreline area that can be utilized for both driving and foraging. As a result, SNPL could be more vulnerable to vehicle strike due to the reduced area along the shoreline. To reduce this impact, CDPR would implement the SNPL and CLTE management program in the foredune area, which includes weekly monitoring for wintering SNPL in the HCP area to locate foraging and/or roosting birds, enforcement of the posted speed limits, placing additional speed limit signs near foraging and/or roosting flocks, and implementing public education methods (e.g., handing out brochures, posting signs). Implementation of the SNPL and CLTE management program would reduce the impacts to wintering SNPL from motorized recreation and lethal impacts would be minor.

Conclusion: Results in a minor to moderate level of lethal and non-lethal take impacts. Results in a minor level of indirect lethal take impacts and moderate habitat modification impacts.

SNPL Critical Habitat

Dust Control Activities– New PMRP (CA-44). The foredune associated with dust control activities would be established in SNPL primary habitat, including 52 acres of critical habitat. This area, previously open to recreation, is no longer open to camping and motorized

recreation. Ultimately, 52 acres of primary/critical habitat would be planted with foredune vegetation that could make it less suitable for SNPL nesting. However, the majority of SNPL nesting occurs within the seasonal exclosure and SNPL often avoid nesting in habitat north of Post 6 due to the heavy recreation use. If nests are established in this newly vegetated area, CDPR will implement protocols to protect these nests with exclosures and bumpouts. In addition, the foredune vegetation would be set back from the shoreline and avoid the nesting exclosure, and plantings would be randomly spaced to avoid creating areas of heavy vegetation; therefore, the area would retain most of the physical and biological features identified for SNPL critical habitat unit CA 31. Overall, vegetation planting in 52 acres of critical habitat would remove approximately 7 percent of the total critical habitat in the HCP area, approximately 3 percent of total critical habitat in Unit CA 31, and approximately 0.2 percent of the total critical habitat range wide. Heavy recreational use in critical habitat was occurring within the HCP area at the time critical habitat was designated; the reduction of recreation in the foredune area would potentially improve the condition of critical habitat. Though the conversion of this area from heavy recreation to natural vegetation for dust control is not intended to increase availability of breeding and foraging habitat, the Service anticipates the overall functionality of critical habitat at Oceano Dunes as an important breeding and wintering area would remain intact. Implementation of dust control activities in critical habitat at Oceano Dunes would be noticeable but would not alter the function and integrity of critical habitat as a whole. Therefore, the Service considers this impact to be moderate.

Conclusion: Dust control activities result in moderate impacts to critical habitat.

Special projects (CA-49). Special projects would entail construction of new facilities that may occur in Pismo State Beach or in Oceano Dunes SVRA. Special projects in tertiary habitat would not affect SNPL. Special projects would be precluded from occurring in SNPL nesting habitat south of Post 6, where SNPL are currently known to nest. If SNPL nest in new areas within primary and secondary habitat, although unlikely special projects could result in destruction of a SNPL nest that has not yet been discovered and/or disturbance of nesting SNPL and SNPL could be deterred from incubating eggs or brooding chicks. These activities could also result in disturbance of SNPL during foraging or roosting. Specifically, SNPL 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. Special project plans, including AMMs (e.g., conducting surveys prior to special project activities and delaying construction until SNPL are no longer in the area), would be submitted to the Service for review and approval prior to constructing a special project that could impact SNPL. As a result, the lethal and non-lethal impacts of special projects to SNPL would be minor.

Placing special projects within SNPL primary and secondary breeding habitat reduces 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 25-year permit term), and they would be placed in areas where SNPL do not typically nest (e.g., outside the seasonal exclosure). Furthermore, special project plans within areas that could impact SNPL would be submitted to the Service for review and approval prior to construction. As a result, the impacts of special projects to SNPL habitat would be minor.

Conclusion: Results in a minor level of lethal and non-lethal take. Results in a minor level of habitat modification, including to critical habitat.

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50)[14]. 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 above 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 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 (49 acres) and incremental elimination of 6 Exclosure (60 acres) could result in the permanent loss of up to 109 acres of protected breeding habitat. This reduction represents approximately one-third of the approximately 368 acres of SNPL breeding habitat currently protected by the seasonal exclosure (300 acres in the Southern Exclosure and 68 acres in Oso Flaco Exclosure).

Although the East Boneyard Exclosure is considered suitable habitat for SNPL, it has supported only seven SNPL nests (i.e., a single nest in a few different breeding seasons) since 2005, indicating that this area may not provide ideal nesting habitat for SNPL and they are unlikely to nest in this area. Any nest 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 AMMs 10 through 17). As a result, lethal impacts to nesting SNPL in East Boneyard Exclosure are not expected.

SNPL are known to nest within the West Boneyard Exclosure and previously the East Boneyard Exclosure 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. Disturbance by motorized recreation can eventually lead to stress, reproductive failure, reduced foraging success, injury, illness, or even death. SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. However, if any SNPL 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 SNPL AMMs (SNPL AMMs 11 and 12) to ensure that disturbance in this area is minimized. As a result, the risk of non-lethal take from the removal of the East Boneyard Exclosure would be low and this impact would be minor.

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

[14] 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).

Flaco could be disturbed by recreationists that enter South Oso Flaco through the Boneyard gate. Prolonged disturbance can eventually lead to stress, reduced foraging success, emaciation, or even death. However, the Oso Flaco fence at the south end of East Boneyard Exclosure would be moved, as necessary, to ensure that recreational access to South Oso Flaco from the former East Boneyard Exclosure area would continue to be limited. As a result, the risk of non-lethal take impact from removal of the East Boneyard Exclosure would be low and the impact would be minor.

The 6 Exclosure has had greater nesting success and is one of the higher producing exclosure areas. From 2005 to 2018, between 25 and 73 (i.e., 25 to 45 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 2018, the most nests established in the first 328 feet of the 6 Exclosure in a year has been six nests. As a result, although unlikely[15], it is possible that up to six 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 73 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 2018, the average density of SNPL nests within the 6 Exclosure has ranged from 0.5 to 1.9 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 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 were 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 et al. 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

[15] 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 et al. 2006) where SNPL increased in abundance and contracted their distribution to within the protected area to avoid recreation disturbance.

328 feet (approximately 7.5 acres) each breeding season until specific criteria not met (see below) and the exclosure reduction ceases.

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 73 nests have been established annually in the 6 Exclosure between 2005 and 2018; therefore, if the entire 6 Exclosure is removed, although unlikely, it could result in 75 to 219 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 and maintained for both SNPL and CLTE, including obtaining a breeding population size greater than 155 SNPL for three consecutive years and a fledge rate of 1.0 fledgling per pair over the same period (Chapter 5 in the HCP). In addition, any nests found outside a seasonal exclosure would be protected by a single-nest exclosure, thus reducing the likelihood of direct impacts to nesting SNPL. Monitors would continue to track SNPL chicks that are hatched within the riding area to determine travel routes and patterns associated with foraging and exploration and protect them with symbolic fencing to keep vehicles away and bumpouts would be installed as necessary to reduce disturbance to SNPL nesting near the areas open to motorized recreation. In addition, all other SNPL AMMs (HCP Table 5-2) would apply to this activity, as appropriate.

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, SNPL AMM 22, which is a new AMM to address potential take associated with recreation and other covered activities not associated with covered species management, establishes a threshold for egg or chick capture (i.e., up to 12 eggs/4 nests and/or 12 chicks/4 broods) under these circumstances. The measure also establishes a threshold (i.e., 8 eggs and 8 chicks) at which point CDPR would contact the Service 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. With these measures the reduction of 6 Exclosure would have a moderate lethal and/or non-lethal impact on SNPL by continuing to ensure that a viable population of SNPL breeds within the HCP area.

Conclusion: Reduction of the Boneyard Exclosure results in a minor level of non-lethal take impacts. Reduction in the 6 Exclosure results in a moderate level of lethal and non-lethal take impacts.

SNPL Critical Habitat

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50). The East Boneyard Exclosure contains 0.28 acre of SNPL critical habitat, and the 6 Exclosure comprises 60 acres of critical habitat. The 6 Exclosure would continue to be closed to motorized vehicles during the SNPL and CLTE breeding season until the biological criteria outlined in Chapter 5 of the HCP are met and the 6 Exclosure can be reduced by 328-foot increments. Ultimately, approximately 60.3 acres of critical habitat could once again be open again to motorized recreation year-round as a result of removing the East Boneyard Exclosure and 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. Of the three physical and biological features identified in critical habitat unit CA 31, areas of barren to sparsely vegetated terrain and areas of sandy beach above and below the high tide line with occasional surfcast wrack supporting small invertebrates would be diminished where protective fencing is removed and recreation activity resumed.

SNPL may continue to use areas that are heavily used by humans, but productivity may be limited, foraging areas reduced, and/or frequent disturbance of wintering flocks may occur. Though heavy recreational use in critical habitat was occurring within the HCP area at the time critical habitat was designated, the rule acknowledged that physical and biological features may require special management considerations or protection to address threats. This change in management in these areas and the function of critical habitat would fluctuate with the reductions of the 6 Exclosure in 328-foot increments. Nesting SNPL would continue to be protected in these areas; however, foraging areas may be reduced. While recreational activities and reduction of the seasonal exclosure would reduce availability of nesting and foraging habitat, these incremental reductions would not take place unless biological success criteria are met and maintained for both SNPL and CLTE, as mentioned above and in Chapter 5 of the HCP. If exclosures are reduced, changes to critical habitat at Oceano Dunes would be noticeable, but implementation of the conservation program to meet these criteria would preserve the overall functionality of critical habitat at Oceano Dunes as an important breeding and wintering area. Therefore, the Service considers this impact to be moderate.

Conclusion: Results in moderate impacts to critical habitat.

CDPR use of UAS (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 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 management, habitat enhancement, SNPL monitoring). UAS activity would not result in direct mortality of SNPL eggs, chicks, juveniles, or adults.

UAS can result in significant disturbance to SNPL, which could lead to increased vigilance and stress, decreased foraging success and reproductive success, and even death. If nesting SNPL are disturbed, SNPL nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. Chicks may also be separated from adults leaving them vulnerable to predation and/or inclement weather or they may

become separated from their brood or move into the open riding area where they are vulnerable to vehicle strike. 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. Vas et al. (2015) also 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 123 through 135 would be implemented 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 the Service, 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, 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, and ensuring the flight plan does not include erratic flight patterns that could be interpreted as an avian predator. As a result, the risk of non-lethal impacts from UAS is low and the impact would be minor. 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. Prolonged disturbance can eventually lead to stress, reduced foraging success, and/or emaciation. 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 123 through 140 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, scanning the area for roosting or foraging SNPL prior to every flight, flying UAS at least 100 feet above ground, and ensuring all flights are approved by the Environmental Resources Project Manager. As a result, non-lethal impacts from UAS on foraging and/or roosting SNPL during the non-breeding season and/or outside occupied SNPL breeding habitat during the breeding season would be minor. 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.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impact.

California Least Tern (CLTE)

Impacts to CLTE from HCP covered activities are described in the HCP section 4.4. An evaluation of whether take occurs from each covered activity is provided in EA Table 2-2.

Although CLTE and SNPL share similar breeding habitat, effects are not expected to be the same due to life history and behavior differences. Some key differences include, but are not limited to, the following:

- CLTE do not occur in the HCP area outside of the breeding season.
- CLTE forage over water and not on land.
- CLTE do not forage at night.
- CLTE are not known to nest in North or South Oso Flaco shorelines and rarely nest outside the protection of the seasonal exclosure.
- CLTE gather after dusk and form a night roost.
- Chicks at later developmental stages are not constantly attended/brooded by adults.
- Sustained incubation begins after first egg is laid.

Effects of ITP Covered Existing Activities on CLTE

The following activities proposed for take coverage under the ITP are existing ongoing visitor use or park operation activities occurring within the HCP area. No major impacts from existing covered activities on CLTE have been identified. Existing covered activities described below result in take of CLTE. Effects to CLTE from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to CLTE from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in take of CLTE (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered existing activities occurring outside of CLTE primary and secondary habitat areas have no or negligible risk of impacting CLTE and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to CLTE include equestrian recreation (CA-7), aerial/wind driven activities (CA-9), tidewater goby and salmonid surveys (CA-13), CRLF surveys and management (CA-14), listed plant management (CA-15), invasive plant and animal control (CA-17), water quality management (CA-19), routine riparian maintenance (CA-26), cable fence maintenance (CA-28), Pismo Beach golf course operations (CA-37), CDPR ag land management (CA-46), and pesticide use (CA-51).

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1) and Camping (CA-2). Motorized recreation and camping occur on an ongoing basis in the HCP area in primary and secondary CLTE breeding habitat from Grand Avenue to Post 6. However, these activities are not allowed within the seasonal exclosure south of Post 6 during the breeding season. Impacts to CLTE from motorized recreation and camping are described in HCP sections 4.4.1.1.1 and 4.4.1.1.2. Take of CLTE has been documented in the HCP area from motor vehicle recreation as listed in HCP EIR Table 6-9.

Motorized recreation and camping activities are not allowed within the seasonal exclosure south of Post 6 during the breeding season. Since CLTE almost exclusively nest and form their night roost within the seasonal exclosure, motorized recreation and camping rarely, if ever, directly impact incubating adults and nests, or individuals within the night roost. If a CLTE does nest outside the exclosure, an unprotected nest could be crushed by a vehicle,

although CLTE AMMs 1 through 23 reduce the risk of this occurring and this is likely an infrequent event. Chicks have been observed in the open riding area where they are at risk of being struck by a vehicle; however, CDPR implements CLTE AMMs 14 and 15 to minimize the risk of a chick being struck by a vehicle and this is likely an infrequent event. In addition, if in the future, CLTE in the HCP area change their night roost location to an area outside the exclosure that is accessible to vehicles, individuals in the night roost could be struck by a vehicle, although CLTE AMM 16 is implemented to reduce the risk of this occurring. Given that chicks and fledglings that are inexperienced at flying are observed each year in the open riding area and, although unlikely, CLTE adults or eggs can be crushed/killed or injured outside the seasonal exclosure by vehicle strike from motorized activities, including from campers driving to camp sites, this lethal impact is considered moderate. This trend is expected to continue in the future.

Disturbance by motorized recreation can result in stress, reproductive failure, reduced foraging success, illness, or even death. CLTE breeding habitat south of Post 6 in Oceano Dunes SVRA is seasonally closed to motorized recreation under the existing natural resource management program. Therefore, CLTE within the seasonal exclosure are not disturbed by motorized recreation. CLTE nesting near the fence line adjacent to the open riding area have been observed being disturbed by nearby recreation. CDPR implements CLTE AMMs 1 through 23, including installing bumpouts if CLTE appear to be disturbed by nearby recreation activities. Disturbance is difficult to document, however, and it is likely that some disturbance occurs despite the implementation of AMMs. As a result, the risk of this impact is moderate, but with implementation of AMMs this non-lethal impact is minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL. CDPR implements CLTE AMMs 24 through 33 to reduce the impacts on CLTE. Therefore, this indirect lethal impact is moderate as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL. This trend is expected to continue in the future.

Habitat quality is permanently reduced in areas open to motorized recreation and camping due to the high level of disturbance. Motorized vehicle recreation reduces available habitat for CLTE and other shorebirds by limiting use in the open riding area compared to non-motorized areas. CLTE are less frequent areas open to motorized vehicles, indicating that they may avoid these areas. In addition, motorized recreation in the non-breeding season when the seasonal exclosure has been removed can alter dune vegetation and topography necessary for CLTE to breed in the coming breeding season. Specifically, motorized recreation can reduce vegetation, organic surface materials (e.g., driftwood), and micro-topography required for CLTE breeding and foraging. CDPR implements CLTE AMMs 34 through 36 to restore habitat that has been impacted during the non-breeding season. In addition, CDPR closes off a portion of the open riding area during the breeding season (i.e., the seasonal exclosure) to ensure that suitable habitat is available CLTE breeding and roosting. Other primary and secondary habitat for CLTE continues to be used for motorized recreation and remains unavailable or of reduced quality for CLTE. Overall, this habitat impact is moderate with the implementation of AMMs that protect and/or enhance suitable CLTE habitat during the breeding and non-breeding season. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal take impacts and a minor level of non-lethal take impacts. Results in a moderate level of indirect lethal take impacts. Results in a moderate level of habitat modification impacts.

Pedestrian Activity (CA-3). Pedestrian activity occurs on an ongoing basis in the HCP area, including within areas where motorized vehicles are not allowed (e.g., Oso Flaco, vegetation islands). Impacts to CLTE from pedestrian activity are described in HCP section 4.4.1.1.3. Pedestrians are not permitted within the Southern Exclosure, which is fenced with predator fence, and therefore pedestrians do not impact nesting CLTE within the seasonal exclosure. Within the HCP area, CLTE nests have rarely been found outside the fenced areas. Although CLTE almost exclusively nest within the Southern Exclosure, CLTE could nest outside the exclosure in areas open to pedestrians. If a CLTE establishes a nest outside the seasonal exclosure in an area open to pedestrians, the cryptic nature of CLTE nests and chicks makes it possible for a pedestrian to crush eggs or kill or injure chicks in an active CLTE nest that has not yet identified by monitors. CDPR implements CLTE AMMs 1 through 3, 5 through 12, 14 through 16, 21 through 23, and 37 through 39 to reduce the risk of this occurring. There are no records of CLTE chicks or eggs being crushed/killed or injured due to pedestrian activities in the HCP area and AMMs appear to prevent this from happening. As a result, this risk of this impact is low, and the lethal impact is minor. This trend is expected to continue in the future.

CLTE nesting near the fence line or outside the seasonal exclosure have been observed being disturbed by nearby pedestrian activities. Chronic disturbance of breeding adults from pedestrian activities near the exclosure indirectly affect chicks or eggs. Chicks or eggs have been abandoned, left unattended for prolonged periods of time, and/or exposed to predation when the disturbance from pedestrian activity has lasted too long. In addition, eggs have been buried by sand or not properly incubated. When adults defend a nest against a threat, eggs and/or chicks are left unattended and exposed to inclement weather, heat stress, and/or predation. These effects are exacerbated if human disturbance coincides with periods of high wind or extreme temperature. CDPR implements AMMs 1 through 3, 5 through 12, 14 through 16, 21 through 23, and 39 (as appropriate) and these AMMs appear to be successful at reducing disturbance impacts. As a result, the risk of this impact is low, and this non-lethal impact is minor. This trend is expected to continue in the future.

Pedestrians moving through aquatic habitat areas occupied by foraging CLTE (e.g., Oso Flaco Lake) have been seen disturbing CLTE foraging and/or roosting in these areas. This has been most frequent on the footbridge hand railing at Oso Flaco Lake, which is used by CLTE for perching after chicks have fledged and adult birds are teaching fledglings to fish in the lake. Pedestrians at the lake disturb CLTE adults and fledglings and deter them from foraging in the area. Fledglings learning to fish have become energetically stressed if they are unable to forage normally. CDPR implements CLTE AMMs 1 and 38 reduce the risk of this occurring. As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

CLTE chicks that enter an area open to pedestrians, have been picked up by a well-meaning visitor attempting to “rescue” the chick by picking it up and moving it to another location or bringing it to park staff. Specifically, this was observed in 2010 when a park visitor picked up an injured fledgling in the open riding area and gave it to park staff. CDPR

implements CLTE AMMs 1 and 2, which includes providing educational information regarding CLTE. These AMMs appear to have reduced this impact since this has not been documented since 2010. Therefore, this non-lethal impact is minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL. CDPR implements CLTE AMMs 24–33 to reduce the impacts on CLTE. Therefore, this indirect lethal impact is moderate as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take. Results in a moderate level of indirect lethal take.

Fishing (CA-5). Visitors in the HCP area fish along the shoreline, at Oso Flaco Lake, and in other aquatic habitats were CLTE forage. People fishing generally occupy habitat longer than pedestrians who are just passing through. Foraging and/or roosting CLTE often avoid areas near fishing activities. As a result, lethal impacts to CLTE likely do not occur from fishing activities and this impact is negligible.

CLTE are observed foraging and roosting in locations where fishing occurs. Fishing activities that remain near foraging and/or roosting CLTE for extended periods of time, disrupt foraging for long periods, thereby disrupting normal foraging behavior and causing adults and/or chicks to become energetically stressed. This has been observed at Oso Flaco Lake where adult CLTE often take fledglings to teach them to forage. To reduce impacts to foraging CLTE, CDPR implements AMMs 38 and 40. Therefore, if fishing activity is observed disturbing CLTE, visitors are asked to relocate, as needed. Monitors also retain the option to close access to Oso Flaco Lake, as needed, to ensure foraging and/or roosting birds are not disturbed. With the implementation of AMMs, the non-lethal impact of fishing on CLTE is minor. This trend is expected to continue in the future.

Increased predation on CLTE could result from visitor trash or discarded fishing bait as described above for motorized recreation (CA-1) and camping (CA-2). CDPR implements CLTE AMMs 24 through 33 and AMM 41 to reduce the effects. Fishing is not considered to be a substantial contributor to trash in the HCP area with the implementation of AMMs. As a result, this indirect lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts. Results in a minor level of indirect lethal take.

Bicycling (CA-4), Dog Walking (CA-6), and Boating/Surfing (CA-8). Impacts from bicycling, dog walking, and boating/surfing on CLTE are similar to those described above for SNPL. Specifically, with the implementation of CLTE AMMs, lethal and non-lethal impacts are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Holidays (CA-10) and Special events (CA-11). Impacts to CLTE from holidays and special events are described in HCP sections 4.4.1.1.10 and 4.4.1.1.11. The existing impacts of

holidays and special events are similar to those of motorized recreation (CA-1), camping (CA-2), and pedestrian recreation (CA-3). Potential impacts to CLTE from visitor activities may be exacerbated during periods of high visitor use, such as holidays (CA-10) or special events (CA-11) and are similar to those described for SNPL above. The risk of holidays and special events impacting CLTE depends on the location, timing, and number of people associated with the holiday or special event. CDPR implements AMMs addressing holidays and special events (CLTE AMMs 49 through 54). As a result, lethal and non-lethal impacts from holidays and special events on CLTE are minor or moderate, depending on the amount and location of the disturbance. This trend is expected to continue in the future.

Conclusion: Results in a minor to moderate level (depending on the intensity, duration, and frequency of activity) of lethal and non-lethal take impacts.

Natural Resources Management

SNPL and CLTE Management (CA-12). Impacts to CLTE from these management activities are described in HCP section 4.4.1.2.2 and section 4.4.1.2.3. SNPL and CLTE management activities include surveying, monitoring, banding, predator control, habitat enhancement, and erecting fencing and exclosures. Effects from the activities are similar to those described above for SNPL, although only large circular single nest exclosures are used to protect CLTE nests outside the seasonal exclosure and predators have not been observed keying in on these exclosures. Mortality of CLTE has been documented as occurring from CLTE striking the symbolic fence in the HCP area and monitors disturb CLTE during some activities. Chicks are also banded in the HCP area, which results in capture of CLTE chicks. CLTE AMMs 55 through 76 are implemented to minimize the risk of injury, harm, and disturbance to CLTE associated with SNPL and CLTE management activities. Lethal and non-lethal impacts from these activities are moderate. However, based upon many years of implementation, the monitoring data presented in the HCP demonstrate these management activities have a beneficial effect that exceed the risk level of incidental take and have increased CLTE reproductive success in the HCP area. Therefore, the overall existing impact of SNPL and CLTE management activities on CLTE is beneficial.

Conclusion: Results in a moderate level of lethal and non-lethal impacts. Overall beneficial impact.

HMS (CA-18). Impacts to CLTE from HMS activities are described in HCP section 4.4.1.2.9. Impacts to CLTE are similar to those described above for SNPL. CDPR implements AMMs (HCP Table 5-2), such as having a monitor with 10(a)(1)(A) Recovery Permit (or approved by the Service) conduct the surveys near the seasonal exclosure, as appropriate to minimize the risk. As a result, this non-lethal impact is minor. Based upon many years of implementation, the monitoring data presented in the HCP demonstrate the information collected as part of these surveys have a beneficial effect that exceed the risk level of take. Therefore, the overall existing impact of the HMS on CLTE is beneficial. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impact.

Park Maintenance

General Facilities Maintenance (CA-21) and Heavy Equipment Response (CA-29). Impacts to CLTE from general facilities maintenance and heavy equipment response are described in HCP section 4.4.1.3.2 and section 4.4.1.3.10, respectively. General facilities maintenance and heavy equipment response currently occur as needed in the HCP area, except for mechanical trash removal, which is described in more detail under ITP New Activities below. The activities occur by CDPR staff who are trained in avoidance and minimization protocols. Impacts to nesting CLTE and CLTE night roost are not known to occur from these activities because CLTE almost exclusively nest and establish their night roost within the Southern Exclosure where these activities are not permitted. In addition, implementation of CLTE AMMs 87 through 89 ensures these impacts do not occur. As a result, the risk of this impact is low and lethal and non-lethal impacts on CLTE within the exclosure are negligible. This trend is expected to continue in the future.

In the rare event that a CLTE establishes a nest that is outside the exclosure and has not yet been discovered by monitors, activities that occur in primary breeding habitat for CLTE can result in destruction or disturbance of a CLTE nest. CDPR implements CLTE AMM 7, which requires daily searches for nests in potential nesting habitat that is outside these exclosures to reduce this impact. In addition, any nests found outside a seasonal exclosure are quickly protected by a single-nest exclosure. As a result, the risk of impact is low and these lethal and non-lethal impacts to CLTE nesting outside the exclosure are not expected and are negligible. This trend is expected to continue in the future.

Foraging and/or roosting CLTE have been disturbed by activities within foraging habitat, such as Oso Flaco Lake. Specifically, activities can disturb CLTE adults and fledglings and deter them from foraging in the area. Fledglings learning to fish can become energetically stressed when they are unable to forage normally. However, these activities have minimal impacts on foraging CLTE because activities are either accomplished quickly or accomplished outside the period when CLTE are on site. In addition, CDPR implements CLTE AMMs 87 through 89 to ensure the impact is minimized. As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Result in a minor level of non-lethal take impacts.

Trash Control (CA-22). Impacts to CLTE from trash control activities are described in HCP section 4.4.1.3.3. Dumpsters are emptied in the HCP area every week. Other garbage bins are emptied regularly, including within Pismo State Beach and along various creeks. Vehicles conducting trash activity are not known to have struck a CLTE to date and this is not thought to happen since CLTE typically remain protected or are observed flying in the air to forage during the nesting season. Trash bins are also not located in areas where trash control activities can disturb incubating CLTE. Implementation of CLTE AMMs 1 through 23 and 87 through 89 ensure vehicle strike and/or disturbance does not occur. Therefore, lethal and non-lethal impacts on nesting CLTE are negligible. This trend is expected to continue in the future.

Trash dumpsters attract a large number of gulls that land and forage in the dumpsters if they are left uncovered. As a result, the continued use of the uncovered trash bins within or near CLTE breeding habitat artificially increases the number of predatory species, including gulls, and thus increases depredation of CLTE. Increasing the number of trash bins on

holidays and during special events to accommodate the increased number of visitors also artificially increases the number of predators at these times and increases depredation of CLTE. To reduce these impacts, CDPR is evaluating several options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites. CDPR also implements a predator management program to ensure depredation of CLTE is minimized. Reducing predator presence near the dumpsters and reducing the movement of trash from the dumpsters reduces the risk of predation on CLTE. However, the existing indirect lethal impacts due to predation as a result of trash control is moderate. This trend is expected to continue in the future. However, a solution to reduce the movement of trash in the future could reduce this impact further.

Conclusion: Results in a moderate level of indirect lethal take impacts. Overall, slight beneficial impact.

Visitor Services

Ranger, Lifeguard, Park Patrols (CA-32) and Beach Concessions (CA-36). Regular ranger and park aide patrols occur throughout the HCP areas open to the public to ensure that visitors are obeying regulations. Patrols are largely conducted via vehicles. Lifeguards perform their services at their assigned lifeguard towers and on roaming patrols that extend from Pismo State Beach to the southern open riding area boundary. Lifeguard towers are installed seasonally around spring break. Tower sites are subject to change but are currently near Grand and Pier Avenues and the North Beach Campground. CDPR rangers, lifeguards, and park aides all must drive across Arroyo Grande Creek and Pismo Creek, when necessary. Concession operated services occur throughout the open riding area away from the seasonal exclosure.

Ranger, lifeguard, and park patrols occur by CDPR staff who are trained in avoidance and minimization protocols. Although ranger and patrol vehicles have struck SNPL in the past, this has not been observed for CLTE. This is most likely because CLTE almost exclusively nest and form their night roost within the Southern Exclosure where these activities do not occur. Furthermore, CLTE AMMs, such as CLTE AMM 87 that requires staff training, and CLTE AMM 88 that requires all CDPR staff observe closures and speed limits, ensure vehicle strike of CLTE from ranger, lifeguard, or park patrol does not occur. As a result, this lethal impact is negligible. This trend is expected to continue in the future.

Ranger and patrol activities do not occur in areas where CLTE are known to nest or form their night roost; however, if a CLTE nest or roost was established in a new area outside the seasonal exclosure these activities could result in disturbance of nesting CLTE and CLTE could be deterred from incubating eggs or attending chicks. These activities could also result in disturbance of roosting CLTE, which could lead to increased vigilance and stress. Specifically, CLTE could be displaced from roosting habitat during the period of disturbance. Ranger and patrol activities are typically localized and short in duration since they pass through the area quickly. In addition, CDPR implement CLTE AMMs 7 and 9 through 16 to reduce disturbance impacts to nesting CLTE from motorized vehicle activity. As a result, the risk of impact is low, and this non-lethal impact is minor. This trend is expected to continue in the future.

Vehicles driving to and from the concession services can strike an individual CLTE in the concession area or disturb an individual by flushing them from their location and causing

them to become energetically stressed. However, CLTE do not typically nest or form their night roost outside of the Southern Exclosure; therefore, the risk of this impact occurring is low. In addition, concession services are required to drive the speed limit and observe other park regulations (CLTE AMM 98). As a result, this lethal and non-lethal impact is negligible. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts.

Emergency Response (CA-33) and Access by non-CDPR vehicles (CA-34). Impacts to CLTE from emergency response and non-CDPR vehicles are described in HCP section 4.4.1.4.2 and section 4.4.1.4.3, respectively. Impacts from emergency activities are not known and have not been documented, although these impacts may be difficult to observe. Potential impacts to CLTE from emergency response and non-CDPR vehicles are generally similar to park maintenance activities; however, CDPR emergency responders sometimes have to travel quickly through areas where CLTE could be present and non-CDPR emergency personnel are not always trained before entering an area.

Most CLTE nest and roost within the Southern Exclosure and are protected from being injured or killed by a speeding emergency vehicle. Although this has not been documented in the HCP area to date, CLTE nesting or roosting along the shoreline and not protected by an exclosure can be struck by a speeding emergency vehicle, especially since emergency vehicles often need to travel through an area quickly. This is most likely to occur after the chicks have fledged when CLTE have been observed roosting along the shoreline near water bodies, including Arroyo Grande creek. Since emergency response is relatively infrequent and most CLTE found roosting outside the exclosure can fly, the risk of this impact is low, and this lethal impact is considered minor. This trend is expected to continue in the future.

The non-lethal impact of medevac helicopters on CLTE is similar to those described above for SNPL and is considered a minor impact. This trend is expected to continue in the future.

Emergencies that occur within a seasonal exclosure, and especially within the Southern Exclosure, can be highly disruptive to CLTE. Adults may flush from the nest and leave the eggs unattended for the duration of the disturbance. CLTE nests or chicks can be abandoned if the adult is injured, killed, or disturbed enough it does not return to the eggs or chick. In addition, CLTE chicks that are out in the open could be separated from adults during the disturbance, which could leave them vulnerable to predation and/or inclement weather. Disturbance can also cause chicks to move into the open riding area. Although emergency response may occur within the seasonal exclosure, such events are rare and do not occur in most years. In addition, monitors inform emergency responders of the locations of sensitive areas and escort emergency response personnel into and out of the seasonal exclosure, when feasible. Monitors also attempt to survey the area once the emergency situation has resolved and all emergency personnel are clear in order to document and alleviate any impacts that occurred. Due to event infrequency, short-term duration of disturbance, and use of monitors (if feasible), risk of this impact occurring is low and the non-lethal impact is considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Natural History and Interpretation Programs (CA-39). Natural history and interpretive programs occur at Oso Flaco Lake where CLTE forage. The footbridge hand railing at Oso Flaco Lake is used by CLTE for perching after chicks have fledged and when adult birds are teaching fledglings to fish in the lake. As a result, foraging and roosting CLTE have been temporarily disturbed by noise and activities associated with interpretive walks and field trips at Oso Flaco Lake. Fledglings learning to fish can become energetically stressed when they are unable to forage normally. To minimize possible disturbance to foraging and/or roosting CLTE at Oso Flaco Lake, CDPR implement AMM 99, which requires that CDPR hold large group programs when CLTE are not present or modify the program to avoid disturbance. As a result, this is considered a minor non-lethal impact. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts.

Other Activities

Vehicle Crossing of Creeks (CA-40). CDPR vehicles regularly cross Pismo/Carpenter Creek. CDPR vehicles sometimes cross Oso Flaco Creek close to shoreline to access the southern portion of the HCP area. CDPR and non-CDPR vehicles also regularly cross Arroyo Grande Creek. Although unlikely, if a CLTE nest is located near Arroyo Grande Creek, a vehicle crossing the creek can injure or kill a nesting CLTE. This is unlikely because any vehicle crossing of the creek would be close to the shore where CLTE do not nest. In addition, CLTE have only been documented nesting near Arroyo Grande Creek one time in the past. As a result, lethal impact from vehicles crossing Arroyo Grande Creek is considered minor. This trend is expected to continue in the future.

CDPR and non-CDPR vehicles crossing creeks can disturb roosting CLTE. Prolonged disturbance could lead to increased vigilance and stress. CLTE are typically only observed roosting at these creek locations toward the end of the breeding season when chicks have fledged. At this time, CLTE are capable of flying out of harm's way; therefore, the risk of impact is low. In addition, CDPR implements CLTE AMMs, including AMMs associated with motorized recreation, which reduce the impacts to CLTE roosting in this area. This non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Dust Control Activities (CA-44). Many dust control projects have already been conducted in the HCP area, as described in HCP Section 2.2.5.5. Impacts associated with future dust control activities are discussed in Effects from ITP Covered New Activities on CLTE. Dust control activities associated with the Dust Control Program EIR (CDPR 2017) conducted to date required pre-work surveys for all special-status wildlife, removal of species from work areas, and avoidance of nesting birds, including a 300-foot buffer from nesting CLTE. As a result, the lethal and non-lethal impacts from existing dust control activities is negligible.

The indirect impacts on CLTE from existing dust control activities are similar to those described for SNPL above. Vegetation planted in the HCP area may increase the number of predators in the HCP area and thus artificially increase predation on CLTE. CDPR implements all AMMs (HCP Table 5-2), as appropriate. In addition, CDPR implements a predator management program to control avian and/or mammalian predators that are

observed targeting or disturbing CLTE adults, chicks, or eggs. The existing indirect lethal impact of existing dust control activities on CLTE is considered minor.

Vegetation planting associated with the Dust Control Program EIR within suitable CLTE habitat has similar impacts as those described above for SNPL, although CLTE are not present in the HCP area during the winter. Vegetation that has been planted in the HCP area to date reduces available suitable CLTE breeding habitat by decreasing the amount of open, wide beaches. Dust control activities associated with the Dust Control Program EIR were designed to avoid active nest areas and CLTE primary habitat. Dust control activities generally occurred in tertiary habitat where they did not impact breeding CLTE. Although some secondary habitat has been lost, CLTE primarily nest within the seasonal exclosure and would likely not have nested in these areas anyway; therefore, the existing habitat impacts have been minor.

A 48-acre area located outside the seasonal exclosure just north of Post 6 and within primary habitat for CLTE has been fenced as a preliminary step toward establishing a new foredune and permanently closing the area to vehicles and camping. The 48-acre area was closed during the non-breeding season when CLTE are not present. In March 2020, Oceano Dunes was closed to public vehicular access as part of State and local directives to shelter at home due to COVID-19. State Parks documented several SNPL nests and one CLTE nest initiated in the vegetated foredune area closed for dust abatement and protected these nests as per their management protocols. The effects of the 48-acre fenced area on breeding CLTE are addressed under Effects of ITP New Covered Activities.

Conclusion: Results in a minor level of indirect lethal take impacts. Results in a minor level of habitat impacts.

Effects of ITP Covered New Activities on CLTE

The following activities proposed for take coverage under the ITP are new visitor use or park operation activities occurring within the HCP area. No major impacts from new covered activities on CLTE have been identified. The risk of impact to CLTE from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities described below result in take of CLTE. New covered activities that do not result in take of CLTE (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered new activities occurring outside of CLTE habitat areas have no or negligible risk of impacting CLTE and are dismissed from further discussion. ITP new covered activities with no or negligible impact to CLTE include general facilities maintenance – mechanical beach raking (CA-21).

Minor to Moderate Impacts

Natural Resources Management

SNPL and CLTE Management – 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). 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 lethal impacts would occur.

SNPL chick and egg capture to prevent mortality from covered activities would occur outside the seasonal exclosure where SNPL eggs and chicks are at risk of being struck by vehicles. Since most CLTE nest within the exclosure, impacts from this activity are expected to minimal and the risk of this impact is low. In the rare case that a CLTE nest or chick occurs outside the seasonal exclosure near an SNPL nest or brood being rescued, CLTE could be flushed from the nest or chicks could be separated from adults. However, these activities will be conducted by a Service-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 non-lethal impact is minor.

Conclusion: Results in a minor level of non-lethal take impacts.

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 Service-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, the risk of this impact is considered low and this non-lethal impact would be minor.

Conclusion: Results in a minor level of non-lethal take impacts.

Other Activities

Pismo Creek Estuary Seasonal Floating Bridge (CA-41). The bridge is located outside of CLTE breeding habitat and installation, use, and removal of the bridge would have no lethal impacts on 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. Fledglings learning to fish can become energetically stressed when they are unable to forage normally. CDPR would implement CLTE AMM 101, which would close the bridge to public use until the birds have left the area if visitor activities are significantly disrupting CLTE foraging and/or roosting behavior. With implementation of this measure, the risk of this impact is low and the non-lethal impact of installation, use, and removal of the bridge to CLTE would be minor.

Conclusion: Results in a minor level of non-lethal impacts.

Riding in 40 Acres (CA-42). Riding in 40 Acres would be located outside the seasonal exclosure and within tertiary CLTE breeding and roosting habitat. In addition, no CLTE foraging habitat is present. Therefore, lethal and non-lethal impacts to nesting, roosting, and foraging CLTE are not expected and the impact would be negligible.

CLTE have been observed flying through the 40 Acres area to reach suitable lake foraging habitat nearby. At times, CLTE have been observed flying as low as 15 feet. 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. CLTE AMMs 1 through 23 would be implemented, as appropriate, to reduce this impact. As a result, this lethal impact is minor.

Conclusion: Results in a minor level of lethal take impacts.

Dust Control Activities– New PMRP (CA-44). Impacts to CLTE from dust control activity are described in HCP section 4.4.1.5.5. A 48-acre area located outside the seasonal exclosure just north of Post 6 and within primary habitat for CLTE has been fenced as a preliminary step toward establishing a new foredune that would be permanently closed to vehicles and camping. The 48-acre area received varying test planting treatments in February 2020, and approximately 90 percent of the area has been either planted or seeded with varying levels of resulting coverage density with the remaining 4.4-acre plot left untreated as a control. It is anticipated CDPR will conduct additional planting in the area. Impacts from fencing the 48-acre on breeding CLTE and impacts associated with planting the 48-acre area are discussed in this section. An additional approximately 4 acres of foredune area are also proposed to be fenced and vegetated as part of the dust control activities. It is assumed that the 4 acres of foredune vegetation would also be outside the seasonal exclosure but within primary habitat for CLTE. The foredune's associated air quality equipment could also be located in primary habitat but would be outside the seasonal exclosure.

Effects of Closing the Foredune Areas to Motorized Recreation and Camping on Breeding CLTE.

The 48-acre area is currently open to pedestrians and CDPR staff that need to maintain the area. However, installing the fencing created a 48-acre closed area north of Post 6 that is free from ongoing motor vehicle disturbance. CDPR anticipates fencing off and planting approximately 4 additional acres of foredune area, also in primary CLTE habitat, which would create an area free from motor vehicle and camping disturbances. CLTE almost exclusively nest in the Southern Exclosure, but the new closed areas may be conducive to nesting, especially prior to any vegetation being planted, as observed during the 2020 nesting season when several SNPL nests and one CLTE was nest initiated in the area. If a CLTE nest is established outside the seasonal exclosure in the closed area in the future, the cryptic nature of CLTE nests and chicks makes it possible for a nest/chick to be crushed/killed or injured if a nest has not yet been identified by monitors. In addition, vehicle and/or pedestrian activities adjacent to the foredune vegetation, and pedestrian and maintenance activities within the foredune vegetation itself, could result in disturbance of nesting CLTE, and CLTE could be deterred from incubating eggs or brooding chicks. However, CDPR would implement CLTE AMMs, as appropriate, including CLTE AMMs 1 through 23 to reduce the risk of crushing/killing or injuring a nest/chick. These AMMs include conducting daily searches for nests in the foredune area, protecting any nests found with a single-nest exclosure, and ensuring a minimum 330-foot nest avoidance buffer around any CLTE nests. As a result, these lethal impacts are expected to be minor.

The 48-acre closed area may increase recreation and motorized activity directly adjacent to the 6 Exclosure as vehicles travel in the narrow corridor (potentially between 300 and 400 feet wide) between the 6 Exclosure and southern edge of the foredune. Recreation and

motorized activity adjacent to the 6 Exclosure could result in disturbance to nesting CLTE if they were to nest near the fenceline of the 6 Exclosure. CLTE adults could abandon the nest or chicks if the disturbance was prolonged. However, for at least the last 8 years, CLTE have not been observed nesting within 500 feet of the northern 6 Exclosure fenceline (HCP Map 13). In addition, CDPR would continue to implement the CLTE and SNPL management program, which includes ensuring that a minimum 330-foot no disturbance buffer is implemented around any CLTE nest and increasing this buffer, as necessary, to ensure nesting CLTE are not disturbed by recreation activities. As a result, the risk of the impact occurring is low and this non-lethal impact is expected to be minor.

The multi-strand metal fencing used to close the 48-acre area and that will be used to close off the 4-acre area is similar to fences placed at other vegetation islands. Fences placed in otherwise open habitat can be hazardous to flying birds. Although there are no direct observations of CLTE striking the seasonal exclosure fencing or South Oso Flaco symbolic fence, dead or injured adult/juvenile CLTE have been found within the Southern Exclosure or nearby shoreline; therefore, these birds might have been injured or killed due to striking the fence (CDPR 2014) and the risk of this impact occurring is considered moderate. Nesting CLTE and/or CLTE within a night roost are expected to be most susceptible to fence strike. Based on previous nesting patterns from 2002 to 2018, CLTE are not expected to nest or form a night roost within the closed area since they are almost exclusively found nesting or forming their night roost within the Southern Exclosure. As a result, CLTE are unlikely to be impacted by fencing placed around the closed area. However, if a CLTE did nest within the area, it could collide with the multi-strand metal fence when flying from or to the nest from another location. In 2015, CDPR placed brightly colored strips of fencing along sections of the Southern Exclosure to increase the visibility of the exclosure fence. The strip of fencing was attempted as an experiment in 2015 and was placed on the western and northern Southern Exclosure fence in 2016 with favorable results. As a result, if CLTE are observed to be at risk of fence collision in the area by a CDPR Environmental Scientist and it is determined necessary to protect CLTE from the risk of fence collision, CDPR would implement this program in the foredune areas by lining the top of the foredune fence with a strip of thicker plastic fencing (orange silt construction fencing cut into approximately 1-foot sections) in March of each year. It is anticipated the visible fencing will reduce or eliminate the likelihood of a CLTE striking a fence in areas where it is installed. As a result, this lethal impact is expected to be minor.

In recent years, CLTE have selected an area within the 6 Exclosure for a night roost. Ultimately, fencing off 52 acres would create closed areas that at least initially – prior to vegetation establishment – may be suitable for a CLTE night roost. Should CLTE change the location of their night roost to the new closed area, pedestrian and vehicle activities adjacent to the area could disrupt night roosting CLTE. Disturbance of the night roost could result in increased stress and could cause CLTE to fly from a protected area to an area where they are vulnerable to vehicle strike. To reduce the disturbance impacts, CDPR would implement the SNPL and CLTE management program in the HCP area. Environmental Scientists will closely monitor the CLTE night roost and will be able to identify most changes in roosting behavior. Over the past 10 years, the night roost has been located in the seasonal exclosure. If the location of the night roost changes, CDPR has a protocol in place to protect the CLTE in the night roost from disturbance by recreation activities, including, but not limited to, implementing an appropriate no-disturbance buffer of 330 feet around the night roost. As a result, the risk of this impact is low and the lethal and non-lethal impacts to CLTE in the night roost would be minor.

Effects of Planting Foredune Vegetation. Some of the dust control vegetation may be planted within and/or adjacent to CLTE secondary habitat, but CLTE has not nested in this secondary habitat and would thus not be directly affected by the new vegetation.

Activities associated with dust control (e.g., vegetation planting, placement, and maintenance of artificial dust control measures, and maintenance of a temporary monitoring site) would not occur within the Southern Exclosure where CLTE almost exclusively nest. In addition, the foredune vegetation must be installed during the rainy season, which concludes prior to CLTE arriving on site for breeding. Activities would also not be conducted within aquatic habitat. As a result, lethal and non-lethal impacts to nesting, roosting, and foraging CLTE from dust control installation are not expected.

The 52 acres of foredune vegetation installed within CLTE primary habitat may impact breeding CLTE by providing habitat for predators to hide and stalk nesting and/or roosting CLTE. At this time, these indirect lethal impacts from dust control activities are not known. CDPR would implement all CLTE AMMs (HCP Table 5-2) for dust control activities, as appropriate. In addition, CDPR implements a predator management program to control avian and/or mammalian predators that are observed targeting or disturbing CLTE adults, chicks, or eggs. With these measures, the indirect lethal impacts would be minor.

The foredune vegetation proposed to be planted for dust control activities within the 48-acre fenced area and the additional 4-acre foredune area would be established in CLTE primary habitat. Ultimately, approximately 52 acres of primary habitat would be planted with foredune vegetation that could make it less suitable for CLTE nesting. Additional vegetation may also be planted within and/or adjacent to secondary habitat. However, CLTE currently nest almost exclusively within the Southern Exclosure and have avoided nesting in habitat north of Post 6 due to the heavy recreation use occurring in this area. In addition, randomly spacing the native foredune vegetation should avoid creating areas of heavy vegetation; therefore, the area would still retain some suitable CLTE nesting habitat. As a result, habitat impacts would be minor.

Conclusion: Results in minor lethal, non-lethal, and indirect lethal take impacts. Results in a minor level of habitat impacts.

Oso Flaco Boardwalk Replacement (CA-48). 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 is also used by CLTE for foraging for fish. 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-September 15). Fledglings learning to fish can become energetically stressed when they are unable to forage normally. To reduce impacts to foraging and/or roosting CLTE at Oso Flaco Lake, CLTE AMMs 102 and 103 would be implemented. These AMMs include conducting surveys prior to any boardwalk construction to assess whether CLTE are present in the area, and if so, whether any CLTE may be disturbed and subsequently delaying 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, the risk of impact is low and non-lethal impacts of replacing the boardwalk on CLTE would be minor.

Conclusion: Results in a minor level of non-lethal take impacts.

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 precluded from occurring in CLTE nesting habitat south of Post 6, where CLTE are currently known to nest. Special projects in tertiary habitat are not expected to affect CLTE and would not be conducted within aquatic habitat; therefore, they would not impact foraging CLTE. Impacts from special projects to nesting and roosting CLTE, as well as CLTE breeding habitat would be similar to those described for SNPL above. Special project plans, including AMMs (e.g., conducting surveys prior to special project activities and delaying construction until CLTE are no longer in the area), would be submitted to the Service for review and approval prior to constructing a special project that could impact CLTE. As a result, the non-lethal and habitat impacts of special projects to CLTE would be minor.

Conclusion: Results in a minor level of non-lethal take impacts. Results in a minor level of habitat modification.

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50)[16]. 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 an 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 Exclosure (49 acres) and incremental elimination of 6 Exclosure (60 acres) could result in the permanent loss of up to 109 acres of protected breeding habitat. This reduction represents approximately one-third of the approximately 368 acres of CLTE breeding habitat currently protected by the seasonal exclosure (300 acres in the Southern Exclosure and 68 acres in Oso Flaco Exclosure).

Elimination of the East Boneyard Exclosure from the Southern Exclosure is expected to be accomplished with no direct impact on nesting CLTE at East Boneyard Exclosure because CLTE have not nested there for 12 years (i.e., since 2005). CLTE are also not known to form their night roost in the East Boneyard Exclosure; therefore, it is expected the East Boneyard Exclosure can be removed with no direct impact on roosting CLTE. As a result, the lethal impacts from the removal of the East Boneyard Exclosure would be negligible.

CLTE are known to nest within the West Boneyard Exclosure and previously the East Boneyard Exclosure 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 CLTE could nest. Disturbance by motorized recreation can eventually lead to stress, reproductive failure, reduced foraging success, injury, illness, or even death. CLTE nests or chicks may be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. However, if any CLTE

[16] CDPR may reduce the exclosure via other configurations, such as east-to-west, but for purposes of analysis this section focuses on a north-to-south, 328-foot (approximately 7.5 acre) reduction.

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 (CLTE AMMs 10 through 12) to ensure that disturbance in this area is minimized. As a result, the risk of non-lethal take from the removal of the East Boneyard Exclosure would be low and this impact would be minor.

The 6 Exclosure has had greater nesting success and is one of the higher producing exclosure areas. From 2005 to 2018, between 4 and 39 (i.e., 35 to 80 percent of the total CLTE nests) CLTE nests have been 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. However, from 2005 to 2018, only one CLTE nest has occurred within the upper 328 feet of the 6 Exclosure. As a result, the 6 Exclosure reduction could expose one nest during the first incremental decrease of the exclosure, although this is unlikely since 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, although unlikely, between 4 and 39 nests could be exposed to recreation, assuming they do not relocate. In addition, if the CLTE population increases, it is possible that more CLTE breeding activity would 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 2018, the high count of CLTE in the night roost has ranged from 35 to 95. The CLTE night roost has been located in the northern portion of the 6 Exclosure since 2004, except in 2015 when CLTE also used the 7 Exclosure. Therefore, reduction of the 6 Exclosure would reduce the habitat available for the CLTE night roost. Although unlikely[17], 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 2018, the average density of CLTE nests within the 6 Exclosure has ranged from 0.01 to 0.9 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 nests CLTE 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 for both SNPL and CLTE (Chapter 5 in the HCP), including obtaining a CLTE breeding population with a 5-year average of 35 nesting pairs

[17] 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.

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, allowing for close monitoring of and response to any nests initiated outside the exclosure. Any such nests would be protected by a single-nest exclosure or bumpout and a 330-foot buffer would be implemented around the single-nest exclosure, thus reducing the likelihood of impacting nesting CLTE. If a CLTE chick is observed traveling outside a single-nest exclosure, the fencing would be modified to ensure a minimum 330-foot radius and increased if needed up to 600 feet in radius with silt fencing used around the exclosure fence to ensure that vehicles do not crush eggs or strike chicks (CLTE AMMs 14 and 15). Furthermore, monitors would track changes in the night roosting behavior of CLTE and ensure the night roosts are protected within an exclosure. If a night roost is found outside the fenced area, CDPR will close of the night roost area with fencing as soon as possible and implement a 330-foot no disturbance buffer around the night roost (CLTE AMM 16). With these measures in place, the reduction of Boneyard Exclosure and 6 Exclosures areas are is expected to have a moderate lethal and non-lethal impact on CLTE by continuing to ensure that a viable population of CLTE continues to breed within the HCP area.

Conclusion: Reduction of the Boneyard Exclosure results in a minor level of non-lethal take impacts. Reduction in the 6 Exclosure results in a moderate level of lethal and non-lethal take impacts and moderate impacts to habitat.

CDPR use of UAS (CA-52). Impacts from CDPR use of UAS (e.g., drones) in the HCP area on CLTE are similar to those discussed above for SNPL. CLTE AMMs 112 through 125 would be implemented 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 Service, 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, 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, and ensuring the flight plan does not include erratic flight patterns that could be interpreted as an avian predator. As a result, the risk of non-lethal impacts from UAS is low and the impacts are expected to be minor. Overall, UAS would likely have beneficial impacts by collecting valuable information on CLTE habitat, predators, and breeding that will inform future management decisions within the HCP area.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impacts.

California Red-legged Frog (CRLF)

Impacts to CRLF from HCP covered activities are described in the HCP section 4.5. An evaluation of whether take occurs from each covered activity is provided in EA Table 2-2. There have been no recorded instances of historic take of CRLF.

Effects of ITP Covered Existing Activities on CRLF

The following activities proposed for take coverage under the ITP are existing ongoing visitor use or park operation activities occurring within the HCP area. No major impacts from existing covered activities on CRLF have been identified. Existing covered activities

described below result in take of CRLF. Effects to CRLF from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to CRLF from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in take of CRLF (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered existing activities occurring outside of CRLF habitat areas have no or negligible risk of impacting CRLF and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to CRLF include bicycling and golfing (CA-4), fishing (CA-5), boating/surfing (CA-8), aerial/wind driven activities (CA-9), special events (CA-11), SNPL and CLTE management (CA-12a and CA-12b), HMS (CA_18), general facilities maintenance (CA-21), trash control (CA-22), cable fence maintenance (CA-28), heavy equipment response (CA-29), ranger, lifeguard, park patrols (CA-32), access by non-CDPR vehicles (CA-34), and beach concessions (CA-36).

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), Dog Walking (CA-6), Equestrian Recreation (CA-7), and Holidays (CA-10). Motorized recreation and camping occur on an ongoing basis in the HCP area. Motorized recreation and camping do not impact CRLF aquatic habitat. No additional vehicles are allowed to enter the HCP area on holidays. Therefore, no additional effect to CRLF occurs from motorized recreation on holidays.

Motorized recreation and camping are generally limited to the beaches and dunes in the HCP area. These areas are considered suitable upland dispersal habitat because they are within 1-mile of aquatic habitat for CRLF. As a result, CRLF may disperse through areas open to motorized recreation and camping and can be injured or killed by vehicles. However, CRLF have not been observed in these areas and this habitat is likely rarely used by CRLF for dispersal over other more suitable habitats since these areas provide minimal cover and are generally inhospitable to CRLF. In addition, CRLF AMMs 1 through 3 are implemented to reduce any impacts in areas where motorized recreation is permitted. As a result, this lethal impact is minor. This trend is expected to continue in the future.

Although motorized recreation and camping are permitted in CRLF upland habitat and could reduce the quality of upland habitat, the impacts of motorized recreation and camping on the quality of CRLF upland dispersal and aestivation habitat are negligible since these activities are not expected to permanently alter barren sand habitat where they occur. This trend is expected to continue in the future.

The two designated campgrounds within the HCP area are adjacent to Meadow Creek, Carpenter Creek, and Oceano (Meadow Creek) Lagoon. CRLF have been observed in Oceano (Meadow Creek) Lagoon and, although not positively identified, were potentially found in Carpenter Creek. CRLF could; therefore, be injured or killed by campground activities. However, activities at the campground have not been observed directly impact CRLF and the likelihood of lethal impacts in the campground areas is low. As a result, this lethal impact is negligible. This trend is expected to continue in the future.

Indirect effects on CRLF from camping activities may include an increase in trash, which may boost predator populations (e.g., raccoons) and thereby incidentally increase predation on CRLF. CDPR implements AMMs 4–9, including informing all visitors they are to dispose of their trash in a trash dumpster and enforcing rules to ensure the campsites are maintained in a clean condition, to reduce this impact. The increase in visitors on holidays could increase the amount of trash in the HCP area; however, this does not result in additional effects on CRLF that have not previously been described. As a result, this indirect lethal impact is minor. This trend is expected to continue in the future.

Most pedestrian- and equestrian-based activities have little, if any, effect on CRLF or its habitat since CRLF tend to be found in aquatic habitats less frequented by visitors. Although very unlikely, pedestrians and horses could injure or kill CRLF tadpoles or adults if activities occur within CRLF habitat. Because this impact is not expected, this lethal impact is considered minor. This trend is expected to continue in the future.

Pedestrians, including leashed dogs, and equestrians crossing creeks or entering lagoons can stir up sediment and increase turbidity in CRLF aquatic habitat. In addition, disturbance by pedestrians, leashed dogs, and equestrians can cause CRLF to move from cover where they may become stressed or exposed to predation. Generally, these impacts are temporary, localized, and short in duration. In addition, CRLF AMM 10 is implemented to reduce impacts from pedestrians crossing Carpenter Creek and Pismo Creek. The increases in visitors on holidays could increase the location and amount of disturbance in aquatic habitat; however, with implementation of AMMs associated with holidays, this is not expected. As a result, these lethal and non-lethal impacts are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts. Results in a minor level of indirect lethal take impacts.

Natural Resources Management

Tidewater Goby and Salmonid Surveys (CA-13), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), and Water Quality Monitoring (CA-19). Tidewater goby and salmonid surveys already occur approximately four times per year in Arroyo Grande Creek and lagoon and at least annually in Pismo Creek and lagoon/Carpenter Creek and Oso Flaco Creek. The District also already monitors water quality and conducts invasive species control in the HCP area, as determined to be necessary. The activities occur by CDPR staff who are trained in avoidance and minimization protocols. Generally, depending on the location of activities (e.g., Oso Flaco Lake), egg masses and CRLF individuals may be present. If CRLF are encountered unintentionally during seining or dipnetting associated with tidewater goby and salmonid surveys (CA-13), CDPR biologists can impact all life stages (i.e., eggs, tadpoles, juveniles, and adults) when handling individuals or egg masses to remove them from the dipnet or seine. In addition, although infrequent, electrofishing is conducted as part of the salmonid surveys in habitat upstream of tidewater goby habitat (e.g., Arroyo Grande Creek). If CRLF are present, electrofishing can injure or kill all CRLF life stages or result in capture of any CRLF life stages. CDPR implements CRLF AMMs 12 through 14, including conducting a visual survey for CRLF prior to sampling for tidewater gobies in areas where CRLF egg masses may be present and postponing sampling for tidewater gobies until the CRLF eggs have hatched or CRLF are no longer present. To date, CRLF have not been injured or killed

during these activities. As a result, lethal impacts to CRLF from tidewater goby and salmonid surveys are considered minor. This trend is expected to continue in the future.

Any listed plant management (CA-15) for marsh sandwort and Gambel's watercress at Oso Flaco Lake, invasive plant or animal control in Oso Flaco Lake or other suitable habitat (CA-17), and water quality monitoring (CA-19) can temporarily affect all life stages of CRLF (i.e., eggs, tadpoles, juveniles, and adults) by disturbing CRLF, if present. Disturbance can cause increased stress and/or expose individuals to predation or other threats. CDPR implements CRLF AMMs 18 through 20 to minimize the impact due to disturbance, including conducting surveys for CRLF within 100 feet of activities to ensure no CRLF are present and delaying activities until any individuals have moved from the area or appropriate AMMs (e.g., relocation or biological monitoring) are in place. As a result, non-lethal impacts due to disturbance are minor. Ultimately, listed plant management, invasive pest plant and animal control, and water quality monitoring and improvements in aquatic habitat where CRLF may occur, are beneficial to CRLF by reducing invasive species in the area, increasing water quality, and providing more suitable habitat for CRLF. This trend is expected to continue in the future.

CDPR biologists or their contractors can facilitate the introduction of amphibian chytridiomycosis when they move from one aquatic habitat to another. Amphibian chytridiomycosis is a disease caused by the zoospore fungus pathogen *Batrachochytrium dendrobatidis* (Bd), which can cause lethargy and weakness in adult frogs and usually results in death of tadpoles. Amphibian chytridiomycosis is transported in water or mud, including in muddy footwear. To minimize the potential to spread Bd, CDPR biologists use the Recommended Equipment Decontamination Procedures (CRLF AMM 15). This includes disinfecting equipment and clothing after entering a pond/stream or before entering a new pond where CRLF may occur. Bd has not been found within the HCP area and the decontamination procedures will continue to minimize the threat. As a result, lethal impacts associated with Bd are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts. Overall beneficial impacts from CA-15, CA-17, and CA-19.

<u>CRLF Surveys and Management (CA-14)</u>. CRLF surveys occur multiple times per year between January and September, including numerous daytime and nighttime surveys within appropriate aquatic habitats (e.g., Arroyo Grande Creek, Oso Flaco Lake, Oso Flaco Creek, Little Oso Flaco Creek, Pismo Creek, Carpenter Creek). Most CRLF surveys result in negligible lethal or non-lethal impacts to CRLF since most surveys for CRLF are eyeshine surveys conducted from kayaks or the edge of the waterbodies and only involve visually scanning for CRLF and/or egg masses. Eyeshine surveys are sometimes conducted multiple times at one site during the breeding season if a CRLF is observed in order to attempt to better determine the breeding status of CRLF at these locations. During these surveys, care is taken not to disturb sediments, vegetation, or any visible larvae. Therefore, risk of lethal and non-lethal impacts to CRLF and/or egg masses from eyeshine surveys is low and the impacts are negligible. This trend is expected to continue in the future.

Dipnetting for CRLF surveys has only rarely occurred in the HCP area to date; however, CDPR has always had the option to dipnet for purposes of monitoring, identification, and management of the species. If dipnet survey are conducted, CDPR biologists or their contractors could impact all life stages of CRLF (i.e., eggs, tadpoles, juveniles, and adults)

when handling individuals and egg masses. During these surveys, CDPR biologists could capture, injure, or kill a CRLF egg mass, tadpole, juvenile, or adult. To reduce impacts associated with these surveys when they do occur, CDPR implements CRLF AMM 16, which requires that the survey be conducted by a Service-approved biologist in accordance with the Service Revised Guidance on Site Assessments and Field Surveys for the CRLF. However, CRLF adults/sub-adults, juveniles, tadpoles, or egg masses are still captured, and mortality and/or injury could still occur. As a result, this lethal and non-lethal impact is moderate. Ultimately, CRLF surveys and management have a beneficial effect on CRLF by providing information necessary to contribute to conservation of the species. This trend is expected to continue in the future.

If dipnetting is conducted, these surveys involve biologists standing in water. Surveys within aquatic habitats may impact CRLF by causing them to move from cover and become stressed or exposed to predation or other threats. Surveys may also temporarily stir up sediment and increase turbidity. In large amounts, increased sediment can impact water quality which can ultimately result in increased stress, injury, or mortality. However, sediment stirred up during wading and/or dip netting activities is minimal, localized, and temporary. These lethal and non-lethal impacts from dipnetting are considered minor. This trend is expected to continue in the future.

CDPR biologists or their contractors can facilitate the introduction of amphibian chytridiomycosis when entering the water for CRLF surveys similar to the impact described above in Natural Resource Management Activities (CA-13, CA-15, CA-17 and CA-19). CDPR biologists use the Recommended Equipment Decontamination Procedures (CRLF AMM 15), including disinfecting equipment and clothing. Bd has not been found within the HCP area, and the decontamination procedures will continue to minimize the threat. As a result, the lethal impacts associated with Bd are minor. This trend is expected to continue in the future.

Ultimately, CA-14 has an overall beneficial effect on CRLF by providing information necessary to contribute to conservation of the species and/or improving CRLF habitat in the long-term. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal and non-lethal take impacts. Overall beneficial impact.

Park Maintenance

Routine Riparian Maintenance (CA-26) and CDPR Ag Land Management (CA-46). Riparian maintenance and agricultural land management activities that could affect CRLF include the clearing of debris, vegetation, and sediment; riparian tree and shrub vegetation control (e.g., removing or trimming vegetation); and emergent and invasive species control. CRLF could occur in riparian areas or agricultural ditches where maintenance activities are located. CDPR implements CRLF AMMs 24, 25 and 26, as appropriate, which include pre-activity surveys no more than two weeks prior to maintenance activities, having a 10(a)(1)(A) permitted biologist (or Service-approved biologist) on-site during activities, and implementing appropriate AMMs, as necessary (e.g., exclusion fencing, relocation). As a result, lethal and non-lethal impacts from riparian maintenance activities are negligible. This trend is expected to continue in the future.

CRLF have not been found within the agricultural ditches; however, CRLF adults could be present in these areas and activities could disturb or injure/kill an individual (e.g., when equipment is used to remove sediment, debris, or vegetation). CDPR implements CRLF AMM 24, which includes conducting activities during low flow periods (if feasible) and CRLF AMM 27, which includes a 10(a)(1)(A) permitted biologist (or Service-approved biologist) relocating CRLF (if necessary), to reduce the potential to disturb, injure, or kill CRLF. As a result, this lethal impact is considered minor. This trend is expected to continue in the future.

Riparian maintenance and agricultural management activities can temporarily result in an increase in turbidity especially if the in-stream vegetation traps and holds sediments. Temporarily suspended sediment can affect CRLF by impacting water quality, which could eventually lead to increased stress, injury, or mortality. However, sediment stirred up during activities is minimal, localized, and temporary. In addition, heavy equipment is not placed in the water, and any back-hoe work is restricted to the roadside or upper bank with only the bucket placed in the water body (CRLF AMM 28). As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

Riparian maintenance activities can indirectly attract CRLF predators into potential CRLF habitat areas. For example, temporary disturbance of stream channel soils during removal of sediment or emergent vegetation can create areas of ponded water that support bull frog and invasive red swamp crayfish, both of which prey upon CRLF. To minimize these effects, CDPR implements CRLF AMM 34, which requires that CDPR smooth the disturbed areas with the potential to pond water with a rake to avoid creation of potential habitat for CRLF predators. As a result, this the risk of this indirect lethal impact low and the impact is considered negligible. This trend is expected to continue in the future.

CDPR biologists could facilitate the introduction of Bd, which is transported in water or mud, including in muddy footwear as described above for Natural Resource Management Activities CA-13, CA-15, CA-17, and CA-19. Decontamination procedures (CRLF AMM 15) continue to minimize the threat. As a result, lethal impacts associated with Bd are negligible. This trend is expected to continue in the future.

Riparian maintenance activities can temporarily impact an annual maximum of approximately 0.3 acre of wetlands for culvert cleanout, debris removal, and emergent vegetation removal. In addition, approximately 2 miles of riparian corridor segments are subject to tree maintenance and invasive weed control as the need arises. Maintenance of these areas will reoccur over the course of the permit, as needed, when vegetation regrows. These activities temporarily reduce aquatic and/or riparian habitat available for CRLF. This habitat impact is moderate. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts. Results in a moderate level of habitat modification impacts.

Visitor Services

Emergency Response (CA-33). It is necessary from time to time for law enforcement and/or medical aids to respond to an emergency that is located off a designated trail. When this occurs, there may be some trampling of vegetation near an aquatic resource or a creek may be crossed. To date, it has not been possible to document the impacts associated with the emergency response, but it is considered to be an infrequent event. Generally, it is possible,

but unlikely, that eggs, tadpoles, juveniles, or adults could be directly affected by such an incident by being struck/crushed by a vehicle if they are in the area where vehicles cross. This is especially be true for vehicles that need to drive above the 15-mph speed limit to respond to an emergency. Because the risk of impact is low, this lethal impact is considered minor. This trend is expected to continue in the future.

Emergency response activities that cross creeks temporarily stir up sediment and increase turbidity. Substantial increases in turbidity can degrade water quality resulting in increased stress, injury, or mortality of CRLF. However, sediment stirred up during emergency response activities is minimal, localized, and temporary. As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Pismo Beach Golf Course Operations (CA-37). CRLF has been observed in Arroyo Grande Creek, Oceano (Meadow Creek) Lagoon, and Carpenter Creek[18]. CRLF also have a low to moderate potential to occur in nearby Meadow Creek, which is adjacent to Pismo Beach Golf Course. It is also possible that CRLF may disperse to Meadow Creek, Carpenter Creek, and/or the golf course ponds, especially during wet weather, although this is not known to have occurred in the HCP area to date. If CRLF disperse through the golf course, golf course operations and maintenance activities, such as golf cart traffic and mowers could potentially strike CRLF individuals and injure or kill them. The potential for such incidents is low because golf carts travel on small, paved paths where CRLF are less likely to occur and most adult CRLF movement is during the night when no golfing activity occurs. Maintenance activities, including mowing, are unlikely to affect CRLF because maintenance activities occur during the day when CRLF movement is less likely to occur and grass height at the golf course does not provide adequate cover for frogs. Maintenance activities occasionally remove emergent vegetation or sediment from the water features in the golf course potentially impacting CRLF. Existing AMMs 25 and 26 require pre-activity surveys, on-site monitoring during project activity, and relocation of CRLF if necessary. As a result, lethal and non-lethal impacts to CRLF from golf course activities are considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Other Activities

Vehicle Crossing of Creeks (CA-40). CRLF have not been observed and are not expected to occur in Arroyo Grande or Oso Flaco Creek in areas where vehicles cross since vehicles cross the creeks near the shoreline where the water salinity is too high for CRLF to persist. Therefore, lethal and non-lethal impacts in these locations are negligible. This trend is expected to continue in the future.

CRLF can occur in Carpenter Creek and can be impacted by motor vehicles crossing this creek. Vehicle strike is not thought to have occurred to date and is expected to be unlikely to occur since vehicle operators crossing the creek are encouraged to cross in areas with

[18] A tadpole that appeared to be a CRLF tadpole was observed in Carpenter Creek; however, a positive identification was not obtained.

no or low flow and travel at speeds of less than 15-mph; however, CRLF may be inadvertently struck by a vehicle crossing Carpenter Creek. CDPR implements CRLF AMM 36, which requires that CDPR staff periodically review conditions and identify issues that may result from vehicles crossing Carpenter Creek. As a result, this lethal impact is minor. This trend is expected to continue in the future.

Vehicles crossing Carpenter Creek stir up sediment and increase turbidity in the creek. Substantial increases in turbidity can degrade water quality resulting in increased stress, injury or mortality of CRLF. However, these impacts are minimal, localized, and temporary. In addition, CDPR implements CRLF AMM 36, which requires that CDPR staff periodically review conditions and identify issues that may result from vehicles crossing Carpenter Creek. As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Dust Control Activities (CA-44). Dust control activities are currently occurring in the HCP area as part of the Dust Control Program EIR. Dust control activities do not result in impacts to CRLF aquatic habitat. Dust control activities temporarily disturb suitable aestivating or dispersing CRLF during activities. It is unlikely, but possible, that CRLF can disperse through or be found in open sand areas prior to dust control measures being installed. Individuals in a dust control work area can be injured or crushed. CDPR implements 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). Impacts to CRLF from dust control activities have not been observed and are not known. As a result, lethal impacts to dispersing CRLF are minor.

Dust control activities alters upland dispersal habitat for CRLF through planting of vegetation and placement of dust control devices and monitoring equipment. This habitat impact is minor since few CRLF have been found in the HCP area and additional dispersal habitat continues to be available in the HCP area. In addition, dust control devices may provide additional cover for dispersing CRLF and benefit the species.

Conclusion: Results in a minor level of lethal take impacts. Results in beneficial habitat impacts.

Use of Pesticides (CA-51). Very few pesticides are tested for toxic effects to amphibians. Most studies look at mammals, birds, fish, and insects. In the absence of robust toxicity data for amphibians in aquatic habitats, the Environmental Protection Agency (EPA) uses fish toxicity as a surrogate. Pesticides used the HCP area can cause mortality if CRLF ingest a toxic pesticide directly or through their food source. Pesticides can also cause indirect lethal effects by changing food availability and habitat quality, including water quality. Many pesticides used in the HCP area are used in upland habitat only and, therefore, do not impact CRLF since CRLF only disperse through this area. The pesticides used in or near aquatic habitat in the HCP area have been found to either be non-toxic to CRLF or have been shown to have low toxicity slight toxicity to fish; therefore, CRLF mortality is not thought to occur. In addition, CDPR implements CRLF AMMs 43 through 49 to ensure the direct or indirect lethal impacts to CRLF do not occur.

CRLF present within pesticide work area could be injured or killed by workers applying the pesticides. In addition, CRLF could be disturbed by workers applying the pesticides and may move from protective cover and be exposed to predation or inclement weather. However, CDPR implements CRLF AMM 42 to ensure that CRLF in the work area are not injured, killed, or disturbed by activities. With this AMM, CRLF are likely not injured or killed; however, some disturbance may still occur. As a result, the lethal impact is considered negligible and the non-lethal impact is considered minor.

Ultimately, these pesticides have a beneficial effect on CRLF by improving CRLF habitat by preventing the encroachment of invasive plant species. Pesticide use in upland areas, adjacent to waterbodies, and, at times, within waterbodies will continue into the future under appropriate permits.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impact.

Effects of ITP Covered New Activities on CRLF

The following activities proposed for take coverage under the ITP are new visitor use or park operation activities occurring within the HCP area. No major impacts from new covered activities on CRLF have been identified. New covered activities described below result in take of CRLF. The risk of impact to CRLF from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in take of CRLF (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered new activities occurring outside of CRLF habitat areas have no or negligible risk of impacting CRLF and are dismissed from further discussion. ITP covered new activities with no or negligible impact to CRLF include SNPL and CLTE management – 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), SNPL and CLTE management – SNPL adult banding (CA-12b), general facilities maintenance – mechanical trash removal (CA-21), Pismo Creek Estuary seasonal bridge (CA-41), riding in 40 Acres (CA-42), reduction of Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR use of UAS (CA-52).

Minor to Moderate Impacts

Other Activities

Dust Control Activities – New PMRP Foredune Vegetation (CA-44). Dust control activities would not result in impacts to CRLF aquatic habitat. Dust control activities could temporarily disturb aestivating or dispersing CRLF during activities. It is unlikely, but possible that CRLF could disperse through or be found in open sand areas prior to dust control measures being installed. Individuals in a dust control work area could be injured or crushed. AMMs for CRLF would be applied 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, lethal impacts to dispersing CRLF would be negligible.

Dust control activities could permanently alter up to 52 acres of upland dispersal habitat for CRLF through planting of foredune vegetation and placement of dust control devices and

monitoring equipment. This habitat impact would be minor since few CRLF have been found in the HCP area, and additional dispersal habitat continues to be available in the HCP area. In addition, vegetation planted for dust control activities and some dust control devices provide necessary cover for CRLF if they are dispersing through the area and may benefit CRLF.

Conclusion: Overall beneficial habitat impact.

Oso Flaco Boardwalk Replacement (CA-48). CRLF is known to occur in aquatic habitat of Oso Flaco Lake and Little Oso Flaco Lake. The Oso Flaco Boardwalk spans approximately 940 linear feet of aquatic habitat including wetlands and open water. 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, which is less than 1 percent of CRLF aquatic habitat in the HCP area. This would be a minor habitat impact.

Replacing the boardwalk would cause temporary disturbance of CRLF aquatic habitat. Construction activities to replace boardwalk segments could also potentially impact individual CRLF by injury or mortality if they are present in the work area. CRLF adults, juveniles, or tadpoles could also be temporarily disturbed by activities. The disruption could cause CRLF to leave or avoid suitable habitat and may increase the potential for predation or desiccation. The HCP identifies AMMs (CRLF AMMs 38 through 41) to reduce the potential impact on CRLF. Timing of the construction would be limited to when CRLF egg masses are less likely to be present. Surveys would be conducted prior to start of work to determine presence of CRLF. A qualified biologist would relocate any individuals in the work area. Construction personnel would be trained for CRLF identification. With these measures in place, the lethal and non-lethal impacts to CRLF would be minor.

Conclusion: Results in a minor level of lethal and non-lethal take impacts. Results in minor level of habitat impacts.

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 in 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, the risk of impact is low, and this lethal impact would be minor.

Special projects could remove up to 35 acres of dispersal habitat, but this habitat impact would be minor since suitable dispersal habitat would still be present throughout the HCP area.

Conclusion: Results in a minor level of lethal take impacts. Results in a minor level of habitat impacts.

Tidewater Goby

Impacts to tidewater goby from HCP covered activities are described in the HCP section 4.6. An evaluation of whether take occurs from each covered activity is provided in EA Table 2-2. Other than a few mortalities that have occurred during seining associated with tidewater goby surveys, there are no recorded instances of historic take of tidewater goby.

Effects of ITP Covered Existing Activities on Tidewater Goby

The following activities proposed for take coverage under the ITP are existing ongoing visitor use or park operation activities occurring within the HCP area. No major impacts from existing covered activities on tidewater goby have been identified. Existing covered activities described below result in take of tidewater goby. Effects to tidewater goby from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to tidewater goby from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in take of tidewater goby (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered existing activities occurring outside of tidewater goby habitat areas have no or negligible risk of impacting tidewater goby and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to tidewater goby include motorized recreation (CA-1), camping (CA-2), bicycling and golfing (CA-4), fishing (CA-5), boating/surfing (CA-8), aerial/wind driven activities (CA-9), special events (CA-11), SNPL and CLTE management (CA-12a and CA-12b), listed plant management (CA-15), HMS (CA-18), general facilities maintenance (CA-21), trash control (CA-22), cable fence maintenance (CA-28), heavy equipment response (CA-29), ranger, lifeguard, park patrols (CA-32), emergency response (CA-33), access by non-CDPR vehicles (CA-34), beach concessions (CA-36), Pismo Beach golf course operations (CA-37), natural history/interpretation (CA-39), dust control activities (CA-44), and CDPR ag land management (CA-46).

Minor to Moderate Impacts

Park Visitor Activities

Pedestrian Activities (CA-3), Dog Walking (CA-6), Equestrian Recreation (CA-7), and Holidays (CA-10). Motorized vehicle impacts are addressed in Vehicle Crossing of Creeks (CA-40) since no other vehicle impacts to tidewater goby occur.

Most of these activities do not occur in tidewater goby habitat and; therefore, do not impact tidewater goby or their habitat. However, pedestrians, dogs, and equestrians can cross tidewater goby habitat in Arroyo Grande Creek, Pismo Creek, Oso Flaco Creek, and Carpenter Creek, as allowed. Impacts to tidewater goby from these activities have not been observed and are not known and the risk of impact is considered low. In general, these activities can trample or injure tidewater goby or collapse tidewater goby breeding burrows within Arroyo Grande Creek estuary and Pismo Creek estuary. Holidays may exacerbate any these impacts by increasing the number of visitors on holidays. CDPR implements Tidewater Goby AMMs 1through 10 within the HCP area to reduce the risk of killing or injuring tidewater goby or crushing tidewater goby burrows. Therefore, this lethal impact is considered minor. This trend is expected to continue in the future.

Recreation activities disturb tidewater goby habitat and/or increase turbidity or degrade water quality. These impacts can be exacerbated during holidays. Increased turbidity and decreased water quality, if prolonged can affect the growth, survival, and reproductive success of tidewater goby. Tidewater Goby AMMs 1 through 14 are implemented in the HCP area to reduce these impacts. Therefore, any habitat disturbance, water quality degradation, or increase in turbidity is minimal, localized, and temporary. This non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal take impacts.

Natural Resources Management

Tidewater Goby and Salmonid Surveys (CA-13), CRLF Surveys and Management (CA-14), Invasive Plant and Animal Control (CA-17), and Water Quality Monitoring (CA-19). Tidewater goby and salmonid surveys already occur approximately four times per year in Arroyo Grande Creek and lagoon and at least annually in Pismo Creek and lagoon/Carpenter Creek and Oso Flaco Creek. CDPR biologists and/or contractors capture all life stages of tidewater goby during seining associated with regular tidewater goby and salmonid surveys (CA-13). Tidewater goby have also been injured or killed during seining associated with monitoring tidewater goby and salmonid populations, although this is fairly uncommon. Mortality or injury can occur if fish become tangled in seine nets, burrows are trampled during survey work, and/or spawning substrates are disrupted during survey activities. Tidewater Goby AMMs 15 through 24 are implemented in the HCP area to reduce the high risk of lethal take of tidewater goby during tidewater goby and salmonid surveys; however, tidewater goby are still captured each year and, in some years, individuals are injured or killed. As a result, the lethal impact is minor, and the non-lethal impact is moderate. Ultimately, tidewater goby and salmonid surveys have a beneficial effect on tidewater goby by providing information necessary to contribute to conservation of the species. This trend is expected to continue in the future.

Dipnet surveys for CRLF are rare in the HCP area, but when dipnet surveys are necessary to survey for CRLF, tidewater goby egg burrows can be disturbed, and tidewater goby can be captured in dip nets if the surveys occur in tidewater goby habitat. Captured individuals can be injured or even killed when caught in the dipnet. Tidewater Goby AMMs 27 and 28 are implemented in the HCP area to reduce the moderate risk of lethal take of tidewater goby during CRLF surveys. To date, CRLF surveys are not thought to have injured or killed tidewater goby. As a result, this lethal and non-lethal impact is minor. This trend is expected to continue in the future.

All of these activities (CA-13, CA-14, CA-17, and CA-19) indirectly affect tidewater goby by temporarily stirring up sediment and increasing turbidity. Increased turbidity reduces visibility for tidewater gobies, resulting in reduced foraging success, difficulty escaping from predators, and reduced reproductive success. However, sediment stirred up during activities is minimal, localized, and temporary and does not affect tidewater goby or their habitat in the long-term. As a result, this non-lethal impact is minor. Ultimately, these activities (CA-13, CA-17, and CA-19) have an overall beneficial effect on tidewater goby by providing information necessary to contribute to conservation of the species and/or improving tidewater goby habitat in the long-term. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal take impacts. Results in a moderate level of non-lethal take impacts. Overall beneficial impact.

Park Maintenance

Routine Riparian Maintenance (CA-26). Routine riparian maintenance is currently conducted in the HCP area under a CDFW Lake and Streambed Alteration Agreement at Oso Flaco Lake, Meadow Creek, Carpenter Creek, Pismo Lake, and Oceano Lagoon. Riparian maintenance activities, including culvert maintenance and emergent vegetation removal, can affect tidewater goby when these activities are located near or within occupied habitat. Although unlikely, tidewater goby individuals can be injured or killed, and egg burrows can be crushed during these activities if tidewater goby are present near the culverts or vegetation maintenance. Tidewater Goby AMMs 34 through 39 are implemented to reduce the risk of killing or injuring a tidewater goby. Specifically, these measures require that work avoid the wetted portion of the channels, to the extent feasible, and that a pre-construction survey be conducted in the work area if work is conducted in the wetted channel. If a tidewater goby is observed, a permitted or Service-approved biologist relocates the species. These measures are thought to be sufficient to minimize lethal impact. As a result, the lethal impact is considered negligible. This trend is expected to continue in the future.

Culvert maintenance requires a backhoe bucket to enter the water and can require personnel to enter the water. These activities stir up sediments and temporarily affect downstream water quality by increasing turbidity. In addition, removing vegetation can stir up sediments and increase turbidity. The effect of turbidity is the same as described above for Natural Resource Management activities (CA-13, CA-14, CA-17, and CA-19) and this non-lethal impact is minor. This trend is expected to continue in the future.

Riparian maintenance can affect tidewater goby habitat if an equipment leak or spill occurs and enters the water. Tidewater Goby AMM 40 and 41 are implemented, which requires refueling and maintenance of equipment to occur at least 60 feet from riparian habitat and appropriate spill containment be kept on-site at all times so any spills can immediately be cleaned. As a result, impacts on water quality from riparian maintenance are negligible. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal take impacts.

Other Activities

Vehicle Crossing of Creeks (CA-40). The mouth of Arroyo Grande Creek has potential to function as a migration route for tidewater gobies during high-flow, winter flood events (D. Rischbieter, pers. comm. 2012). In addition, a recent discovery(Rischbieter 2017) of two tidewater goby individuals at the mouth of Oso Flaco Creek also makes Oso Flaco Creek a potential migration route for tidewater gobies. Arroyo Grande Creek is crossed by the public, as well as CDPR staff. Oso Flaco Creek is only crossed by CDPR maintenance and monitoring crews and no public vehicles are allowed. All vehicles cross the creeks near the shoreline. No impacts to tidewater goby egg burrows occur from vehicles crossing these creeks because the respective shallow sandy stream segments, where such crossing occurs, is not suitable habitat for tidewater goby spawning or rearing.

CDPR vehicles and emergency vehicles can cross Arroyo Grande Creek, Oso Flaco Creek, and Pismo/Carpenter Creek. Non-CDPR vehicles and HCP area visitors can only cross Arroyo Grande Creek. Vehicles or equipment crossing creeks (i.e., Arroyo Grande Creek, Oso Flaco Creek, or Pismo/Carpenter Creek) can harm or kill tidewater goby if they are present at the time of crossing, though this is not possible to document. However, during high-flow, winter flood events when tidewater goby may be migrating through, vehicular crossing of creeks is prohibited or very limited. In addition, CDPR implements Tidewater Goby AMMs 43 through 44, which include reviewing conditions and identifying/addressing issues if ponded water is present at the vehicle crossings. Although these AMMs are thought to greatly minimize any lethal impacts, some lethal impacts are thought to still occur. As a result, this lethal impact is considered moderate. This trend is expected to continue in the future.

Crossing creeks stirs up sediment, which could affect upstream reaches of Arroyo Grande Creek or Oso Flaco Creek by increasing turbidity. Increased turbidity, if prolonged can affect the growth, survival, and reproductive success of tidewater goby. However, any effects from increased turbidity are minor, localized, and temporary and do not affect tidewater goby in the long-term. As a result, this non-lethal impact is considered minor. This trend is expected to continue in the future.

Under certain conditions, especially in the winter, the extent of the ponded areas in Arroyo Grande Creek can shift significantly between tides and sometimes even between successive wave sets. Even though motor vehicles are prohibited from traversing these ponded areas, it is not feasible for CDPR staff to move fencing and closure signage each time the area changes, and visitors may not know they are prohibited from driving through the ponded areas. As a result, a small amount of tidewater goby habitat in Arroyo Grande Creek and at the confluence of Carpenter Creek and Pismo Creek may be temporarily affected by motorized vehicles driving through suitable habitat Given the infrequency of this impact and small portion of habitat impacted, this habitat impact is considered minor.

Conclusion: Results in a moderate level of lethal take impacts. Results in a minor level of non-lethal take impacts. Results in a minor level of habitat impacts.

Use of Pesticide (CA-51). Pesticides used the HCP area can cause mortality if tidewater goby are exposed to a toxic pesticide through direct contact or through their food source. Pesticides can also cause indirect effects by changing food availability and habitat quality, including from degradation of water quality through direct application or runoff from application in upland habitats. Many pesticides used in the HCP area are used in upland habitat only and, therefore, are not expected to directly impact tidewater goby. As described in the HCP, the pesticides used in or near aquatic habitat in the HCP area have been found to have low toxicity to slight toxicity to fish; therefore, tidewater goby mortality is not though to occur and the risk of impact is considered low. In addition, Tidewater Goby AMMs 47 through 55 are also implemented to reduce the risk of indirect impacts to tidewater goby, including from drift or runoff from upland habitats into aquatic habitats. As a result, the lethal impacts are considered minor. Ultimately, these pesticides have a beneficial effect on tidewater goby habitat by preventing the encroachment of invasive plant species. Pesticide use in upland areas, adjacent to waterbodies, and, at times, within waterbodies will continue into the future under appropriate permits.

Conclusion: Results in a minor level of lethal take impacts. Overall beneficial impact.

Tidewater Goby Critical Habitat

Critical habitat for tidewater goby is designated within the HCP area in Pismo Creek and Oso Flaco Lake. Existing covered activities occurring in the HCP do not permanently modify or reduce the quality of tidewater goby critical habitat in the HCP area.

Conclusion: Results in minor impacts to critical habitat.

Effects of ITP Covered New Activities on Tidewater Goby

The following activities proposed for take coverage under the ITP are new visitor use or park operation activities occurring within the HCP area. No major impacts from new covered activities on tidewater goby have been identified. New covered activities described below result in take of tidewater goby. The risk of impact to tidewater goby from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in take of tidewater goby (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered new activities occurring outside of tidewater goby habitat areas have no or negligible risk of impacting tidewater goby and are dismissed from further discussion. ITP covered new activities with no or negligible impact to tidewater goby include SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL adult banding (CA-12b), general facilities maintenance – mechanical trash removal (CA-21), riding in 40 Acres (CA-42), dust control activities – New PMRP Foredune Vegetation (CA-44), Oso Flaco boardwalk replacement (CA-48), special projects (CA-49), reduction of Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR use of UAS (CA-52).

Minor to Moderate Impacts

Other Activities

Pismo Creek Estuary Seasonal Floating Bridge (CA-41). The floating bridge could block passage for fish when it is installed. To allow movement of all fish species as well as an exchange of fresh and salt water, even during low flows, Tidewater Goby AMMs 45 and 46 would be implemented requiring that the interlocking pieces of the bridge be constructed to create wide openings under the bridge and that the bridge be removed if water levels are so low that it is not allowing the free movement of fish in the estuary. The bridge could 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 non-lethal impacts on tidewater goby. Ultimately, a floating 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 be beneficial for tidewater goby and habitat by reducing the temporary effects from turbidity and the potential for tidewater goby individuals to be injured or killed.

Conclusion: Results in a minor level of non-lethal take impacts. Overall beneficial impact.

Tidewater Goby Critical Habitat

Critical habitat for tidewater goby is designated within the HCP area in Pismo Creek and Oso Flaco Lake. New covered activities occurring in the HCP would not permanently modify or reduce the quality of tidewater goby critical habitat in the HCP area.

Conclusion: Results in minor impacts to critical habitat.

California (Coast) Horned Lizard and Silvery Legless Lizard

Silvery legless lizard and coast horned lizard may occur throughout the HCP area, although coast horned lizard is thought to be very uncommon in the HCP area. The potential to encounter these species is highest in vegetated and/or moist areas; however, these species could be found in open sand areas as they travel on the edge of existing habitat areas or disperse between potential habitat areas.

Effects of ITP Covered Existing Activities on Coast Horned Lizard and Silvery Legless Lizard

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to coast horned lizard and silvery legless lizard from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP, therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to coast horned lizard from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside of coast horned lizard and silvery legless lizard habitat have no or negligible risk of impacting these species and are dismissed from further discussion. ITP covered existing activities with no or negligible impacts to California horned lizard and silvery legless lizard include bicycling and golfing (CA-4), fishing (CA-5), equestrian recreation (CA-7), boating/surfing (CA-8), aerial/wind driven activities (CA-9), SNPL and CLTE management (CA-12a and CA-12b), tidewater goby and salmonid surveys (CA-13), CRLF surveys and management (CA-14), water quality monitoring (CA-19), Pismo Beach Golf Course operations (CA-37), natural history/interpretation (CA-39), vehicle crossing creeks (CA-40), and CDPR ag land management (CA-46).

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Dog Walking (CA-6), and Special Events (CA-11). Motorized recreation, dog walking, and camping do not directly impact vegetation island habitat or other moist habitat (e.g., Oso Flaco Lake) for coast horned lizard or silvery legless lizard. Motorized recreation and camping are generally limited to the beaches and

dunes in the HCP area and/or designated campgrounds. Silvery legless lizard was observed in the designated campgrounds in the past, although this is considered an uncommon occurrence. Although beaches, dunes, and campgrounds are considered suitable upland habitat for coast horned lizard and silvery legless lizard and these species can disperse through and be injured or killed or disturbed (disturbance can cause increased stress and/or expose individuals to predation and other threats) by vehicles, people, or dogs in these areas, this habitat is thought to be infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover and the risk of an impact occurring is considered low. As a result, the lethal and non-lethal impacts are considered minor. This trend is expected to continue in the future.

The effects of motorized recreation and camping to the quality of upland habitat are negligible since these activities are do not permanently alter barren sand habitat where they occur. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL and CLTE. CDPR implements SNPL AMMs 32 to 42 and CLTE AMMs 24 through 33 to reduce the effects on SNPL and CLTE. These measures also reduce the effect of trash on coast horned lizard and silvery legless lizard. Therefore, the risk of an impact occurring is considered low and this indirect lethal impact is minor. This trend is expected to continue in the future.

No additional vehicles are allowed to enter the HCP area during special events and special events typically occur in areas where motorized recreation already occurs, so the impacts from special events are thought to be similar to those from motorized recreation. Therefore, no additional impacts to coast horned lizard or silvery legless lizard occur during special events.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of indirect lethal impacts.

Pedestrian Activities (CA-3) and Holidays (CA-10). Pedestrians are allowed within the vegetation islands and other areas where coast horned lizard and silvery legless lizard may occur. Impacts to coast horned lizard and silvery legless lizard from pedestrian activities are not known, but the risk of pedestrians impacting this species is considered moderate. Pedestrians walking through suitable habitat for these species can injure or kill species. In addition, pedestrians can deter these species from foraging or resting resulting in increased stress and cause them to move from protective cover exposing them to predators. Potential impacts to coast horned lizard and silvery legless lizard from visitor activities may be exacerbated during periods of high visitor use, such as holidays. As a result, lethal and non-lethal impacts from pedestrian activities on coast horned lizard and silvery legless lizard are considered minor to moderate depending on the duration, type, and intensity of the activity. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2). CDPR implements SNPL AMMs 32 to 42 and CLTE AMMs 24 through 33 to reduce the effects on SNPL and CLTE. These measures also reduce the effect of trash on coast horned lizard and silvery legless lizard. Therefore, the risk of an impact occurring is considered low and this indirect lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor to moderate level (depending on the duration, type, and intensity of the activity) of lethal and non-lethal impacts. Result in a minor level of indirect lethal impacts.

Natural Resources Management

Listed Plant Management (CA-15) and Invasive Plant and Animal Control (CA-17). Listed plant management, habitat restoration, and invasive plant and animal control activities can result in injury or mortality of coast horned lizard and silvery legless lizard if they are present within the work area. In addition, these activities can deter individuals from foraging or resting causing increased stress or cause them to move from cover where they are exposed to predation and other threats. The potential to encounter these species is highest in already vegetation or moist areas (e.g., vegetation islands); however, although less likely, these species can also be found in open sand areas as they travel and disperse between more suitable habitat areas. As part of CDPR's standard practices in the HCP area, pre-construction surveys are conducted, if determined necessary by a CDPR Environmental Scientist, prior to conducting listed plant management or invasive plant management in the vegetation islands or other suitable habitat for coast horned lizard and silvery legless lizard to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction survey or during the covered activity, activities are delayed until the individual has moved from the area or until appropriate AMMs are in place. AMMs could include relocation, exclusion fencing, and/or biological monitoring. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the lethal and non-lethal impacts on coast horned lizard and silvery legless lizard are minor. Overall, these activities could create additional vegetated and/or cover habitats for both silvery legless lizard and coast horned lizard and remove potential non-native predators and therefore are beneficial to this species. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Overall beneficial impacts.

HMS (CA-18). As part of the HMS within the HCP area, coverboards are used to inventory reptiles and amphibians present in the vegetation island habitat. Silvery legless lizards and coast horned lizards, if present, are handled for identification purposes during coverboard surveys. These species can also be killed or injured during handling, although this is unlikely. As a result, the risk of an impact occurring is high and the HMS has moderate lethal and non-lethal impacts on coast horned lizard and silvery legless lizard. Ultimately, however, the HMS has beneficial impacts on these species by providing useful information on the species distribution and habitat in the HCP area. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal and non-lethal impacts. Overall beneficial impacts.

Park Maintenance

General Facilities Maintenance (CA-21), Trash Control (CA-22), Routine Riparian Maintenance (CA-26), Cable Fence Maintenance (CA-28), and Heavy Equipment Response (CA-29). Trash control, cable fencing, heavy equipment response, and general facilities maintenance occur within open sand areas, which is outside of coast horned lizard and silvery legless lizard preferred habitat (i.e., vegetated areas). Open sand areas are considered suitable upland habitat for coast horned lizard and silvery legless lizard and these species can disperse through and be injured or killed or disturbed (disturbance can cause increased stress and/or expose individuals to predation and other threats); however, this habitat is thought to be infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover and the risk of this impact occurring is considered low. Therefore, the lethal and non-lethal impacts of these activities on coast horned lizard or silvery legless lizard are minor. Trash control (CA-22) has a moderate beneficial effect on silvery legless lizard and coast horned lizards by reducing the presence of potential predators. This trend is expected to continue in the future.

Riparian maintenance activities include activities such as exotic species control and riparian tree maintenance. Coast horned lizard and silvery legless lizard may use riparian vegetation as cover, although their occurrence in these areas is not known. Riparian maintenance activities may injure or kill these species, as well as cause them to move from cover into more open habitat where they are at risk of predation. As part of CDPR's standard practices in the HCP area, pre-construction surveys are conducted, as determined necessary by a CDPR Environmental Scientist, prior to riparian maintenance within or adjacent to suitable habitat for coast horned lizard and silvery legless lizard to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction surveys, activities are delayed until the individual has moved from the area or the individual is moved out of harm's way by a qualified biologist. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the lethal impact on coast horned lizard and silvery legless lizard is considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Some beneficial impact from trash control (CA-22).

Visitor Services

Ranger, Lifeguard, Park Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), Beach Concessions (CA-36). Ranger, lifeguard, and park patrols; emergency response; access by non-CDPR vehicles; and beach concessions all occur within open sand areas. Open sand areas are considered suitable upland habitat for coast horned lizard and silvery legless lizard and these species can disperse through and be injured or killed or disturbed (disturbance can cause increased stress and/or expose individuals to predation and other threats); however, this habitat is thought to be infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover and the risk of this impact occurring is considered low. Therefore, the lethal and non-lethal impact of these activities on coast horned lizard or silvery legless lizard are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Other Activities

Dust Control Activities (CA-44). Dust control activities are currently occurring within the HCP area as part of the Dust Control Program EIR. Dust control activities can result in injury or mortality of these species if they are present within the work area. The potential to encounter these species is highest in already vegetation or moist areas, which don't typically require dust control measures; however, although less likely these species can be found in open sand areas as they travel and disperse between more suitable habitat areas. These species can also be attracted to areas where dust control measures are implemented (e.g., straw bales and vegetation); therefore, maintenance of these areas can result in injury or mortality of these species. In addition, these activities can deter individuals from foraging or resting causing increased stress or cause them to move from cover where they are exposed to predation and other threats. However, dust control activities require pre-construction surveys prior to removing or installing dust control measures to avoid harm and injury to individual lizards (MIG|TRA 2017). If an individual is observed during the pre-construction survey or during the dust control activities, activities are delayed until a qualified biologist (i.e., a biologist with a Scientific Collecting Permit) relocates the individual. With implementation of this project requirement, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the lethal and non-lethal impacts on coast horned lizard and silvery legless lizard are minor. Overall, the dust control program has created additional vegetated and/or cover habitats for both silvery legless lizard and coast horned lizard and is, therefore, beneficial to this species.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in beneficial habitat impacts.

Use of Pesticide (CA-51). Pesticides in the HCP area are used to prevent the spread of invasive species. Application of pesticides in the HCP area could result in injuring or killing coast horned lizard or silvery legless lizard if they are trampled during application, although this is unlikely since these species typically move out of harm's way. Pesticide application could also result in temporarily flushing coast horned lizard or silvery legless lizard from cover which could result in increased stress and/or being exposed predation and other threats. AMMs for pesticides are implemented for listed species to reduce the risk of mortality or indirect impacts, which also benefit coast horned lizard and silvery legless lizard. As a result, the risk of impacts occurring is low and these lethal and non-lethal impacts are minor.

Although pesticides are not thought to cause mortality to wildlife species, mortality is difficult to observe and can occur. Pesticides used the HCP area can cause mortality if coast horned lizard or silvery legless lizard ingest a toxic pesticide directly or through their food source. Pesticides could also cause indirect effects by changing food availability and habitat quality. Many pesticides used in the HCP area are used in upland habitat where coast horned lizard and silvery legless lizard may occur. Pesticides in the HCP area typically have low toxicity to slight toxicity to animals and target invasive plant species; therefore, the risk of mortality is low. AMMs for pesticides are implemented for listed species to reduce the risk

of mortality or indirect impacts, which also benefit coast horned lizard and silvery legless lizard. In addition, all pesticides in the HCP area are used in accordance with the label. As a result, this lethal impact is minor.

Ultimately, pesticides have a beneficial effect on coast horned lizard and silvery legless lizard by improving habitat by preventing the encroachment of invasive plant species.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Overall beneficial impact.

Effects of ITP Covered New Activities on Coast Horned Lizard and Silvery Legless Lizard

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to coast horned lizard from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside of coast horned lizard and silvery legless lizard habitat have no or negligible risk of impacting these species and are dismissed from further discussion. ITP covered new activities with no or negligible impact to coast horned lizard and silvery legless lizard include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), Pismo Creek Estuary seasonal floating bridge (CA-41), Oso Flaco boardwalk replacement (CA-48), and CDPR use of UAS (CA-52).

Minor to Moderate Impacts

Park Maintenance

General Facilities Maintenance – Mechanical Trash Removal (CA-21). Mechanical trash removal would not occur in vegetated dunes or vegetation islands. Coast horned lizard or silvery 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 these 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 silvery legless lizard, and these species could disperse through 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. As a result, the risk this activity injuring or killing a coast horned lizard or silvery legless lizard is expected to be low. Therefore, the lethal impact of mechanical trash removal activity on coast horned lizard or silvery legless lizard would be minor.

Conclusion: Results in a minor level of lethal impacts.

Other Activities

Riding in 40 Acres (CA-42). The 40 Acres site comprises vegetated dunes near in the Oso Flaco Lake area. Coast horned lizard and silvery legless lizard could be present in the 40 Acres 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 silvery 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 CDPR's standard practices in the HCP area, 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 to be necessary by a CDPR Environmental Scientist, to avoid harm and injury to individual lizards. If an individual is observed during the construction of the 40 Acres trail, activities would be delayed until the individual has moved from the area or the species would be relocated out of harm's way by a qualified biologist. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the lethal and non-lethal impacts on coast horned lizard and silvery legless lizard would be minor.

Vegetation within the 40 Acre 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 suitable coastal dune habitat for coast horned lizard and silvery legless lizard. The HCP area contains approximately 1,079 acres of suitable vegetated dune habitat (e.g., silver dune lupine – mock heather scrub) for coast horned lizard and silvery 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 coast horned lizard and silvery legless lizard. As a result, this habitat impact would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of habitat impacts.

Dust Control Activities – New PMRP Foredune Vegetation (CA-44). Dust control activities could result in lethal impacts of coast horned lizard and silvery 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 dust control measures; however, although unlikely, these species can be found in open sand areas as they travel and disperse between more suitable habitat areas. These species could also be attracted to areas where dust control measures are implemented (e.g., straw bales, wind fencing, and vegetation); therefore, maintenance of these areas could result in injury or mortality of these species. In addition, these activities can deter individuals from foraging or resting causing increased stress or cause them to move from cover where they are exposed to predation and other threats. However, as part of their standard practices, CDPR would conduct pre-construction surveys, as determined to be necessary by a CDPR Environmental Scientist, prior to installing dust control measures to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction survey or during the dust control activities, activities would be delayed until the lizard moves out of harm's way on its own accord and/or a qualified biologist relocates the individual. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However,

the AMMs ensure that the lethal and non-lethal impacts on coast horned lizard and silvery legless lizard would be minor.

Dust control activities would permanently alter about 400 acres of habitat for coast horned lizard and silvery legless lizard through planting of vegetation and placement of dust control devices and monitoring equipment. Of these roughly 400 acres, only 52 acres of activity located in the foredunes are subject to ITP authorization. Dust control measures would ultimately create additional vegetated and/or cover habitats for both silvery legless lizard and coast horned lizard and would, therefore, be beneficial to this species. As a result, this habitat impact would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of habitat impacts. Overall beneficial habitat impact.

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 silvery legless lizard are most likely to occur. Special projects could be located in bare sand areas where these species could disperse, although this is thought to be an infrequent event. 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 the CDPR's standard practices in the HCP area, pre-construction surveys would be required by CDPR prior to special projects in suitable habitat for coast horned lizard or silvery legless lizard to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction survey or during the boardwalk replacement, activities would be delayed until the individual has moved from the area or until appropriate AMMs are in place. AMMs could include relocation, exclusion fencing, and/or biological monitoring. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the lethal and non-lethal impact on coast horned lizard and silvery legless lizard would be minor.

Special projects could remove up to 35 acres of bare sand habitat that could be used for dispersal, but this impact would be negligible since suitable dispersal habitat would still be present throughout the HCP area.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

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. If present, coast horned lizard and silvery legless lizard are most likely to occur within the vegetated areas, which would still be closed off to motorized recreation. Coast horned lizard and silvery legless lizard may disperse through upland habitat in the geographic areas proposed for exclosure reduction where they could be exposed to motorized recreation. However, dispersal through areas open to motorized recreation is likely infrequent and the risk of this impact is considered low. Therefore. this activity would have minor lethal impacts on coast horned lizard and silvery legless lizard.

Conclusion: Results in a minor level of lethal impacts.

Western Spadefoot Toad

Covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

Effects of ITP Covered Existing Activities on Western Spadefoot Toad

No or Negligible Impacts

Covered existing activities occurring outside of western spadefoot habitat areas have no or negligible risk of impacting western spadefoot toad and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to western spadefoot toad include bicycling and golfing (CA-4), fishing (CA-5), boating/surfing (CA-8), aerial/wind driven activities (CA-9), special events (CA-11), SNPL and CLTE management (CA-12a and CA-12b), HMS (CA_18), general facilities maintenance (CA-21), trash control (CA-22), cable fence maintenance (CA-28), heavy equipment response (CA-29), ranger, lifeguard, park patrols (CA-32), access by non-CDPR vehicles (CA-34), beach concessions (CA-36), Pismo Beach Golf Course Operations (CA-37), and CDPR ag land management (CA-46).

Minor to Moderate Impacts

The risk of impact to western spadefoot toad from existing covered activities and an assessment of the impact magnitude are discussed below. Overall, impacts from existing covered activities to western spadefoot toad are expected to be similar to CRLF as described above, with the exception that western spadefoot toad is not be expected to occur in agricultural lands or at the Pismo Beach golf course. As a result, unlike CRLF, no impacts would be expected from Pismo Beach Golf Course Operations (CA-37) and CDPR ag land management (CA-46). Although western spadefoot toad is known to aestivate in upland habitats for longer periods than CRLF, this species is considered very uncommon in the HCP area and; therefore, this species is considered unlikely to be impacted by covered activities upland or aquatic habitat. Any impact that does occur would be considered ***negligible or minor***.

Effects of ITP Covered New Activities on Western Spadefoot Toad

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to western spadefoot toad from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered new activities occurring outside of western spadefoot toad habitat areas have no or negligible risk of impacting western spadefoot toad and are dismissed from further discussion. ITP covered new activities with no or negligible impact to western spadefoot toad include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), general facilities maintenance – mechanical trash removal (CA-21), Pismo Creek Estuary seasonal floating bridge (CA-41), riding in 40 Acres (CA-42), dust control activities

– New PMRP Foredune Vegetation (CA-44), reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR use of UAS (CA-52).

Minor to Moderate Impacts

The following ITP covered new activities could impact western spadefoot toad: Oso Flaco boardwalk replacement (CA-48) and special projects (CA-49). The impacts to western spadefoot from new covered activities are expected to be similar to CRLF above. However, western spadefoot toad is thought to be very uncommon in the HCP area and; therefore, this species is less likely to be impacted by covered activities than CRLF. As a result, impacts to western spadefoot toad are not expected and the risk is low to none. Impacts to western spadefoot toad would be ***negligible or minor.***

Western Pond Turtle

WPT has been found within numerous lakes within and near the HCP area, including Oso Flaco Lake. WPT could occur within the creeks in the HCP area when they are dispersing; however, WPT, to date, have not been observed in the HCP area creeks.

Effects of ITP Covered Existing Activities on Western Pond Turtle

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to WPT from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to WPT from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further.

No or Negligible Impacts

Covered activities occurring outside of WPT aquatic habitat areas have no or negligible risk of impacting WPT and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to WPT include motorized recreation (CA-1), bicycling and golfing (CA-4), dog walking (CA-6), equestrian recreation (CA-7), boating/surfing (CA-8), aerial/wind driven activities (CA-9), special events (CA-11), SNPL and CLTE management (CA-12), general facilities maintenance (CA-21), trash control (CA-22), cable fencing (CA-28), heavy equipment response (CA-29), ranger/lifeguard (CA-32), emergency response (CA-33), and access by non-CDPR vehicles (CA-34), beach concessions (CA-36), dust control activities (CA-44), and ag land management (CA-46).

Minor to Moderate Impacts

<u>Park Visitor Activities</u>

<u>Camping (CA-2)</u>. Camping does not directly impact WPT aquatic habitat. The two designated campgrounds within the HCP area are adjacent to Meadow Creek, Carpenter Creek, and Oceano (Meadow Creek) Lagoon. WPT may use these creeks for dispersal. Activities at the campground have not been observed directly impacting WPT and the risk of this impact is low. Overall, lethal and/or non-lethal impacts to WPT in the HCP area are negligible. This trend is expected to continue in the future.

Indirect effects on WPT from camping activities include an increase in trash, which can boost predator populations and thereby incidentally increase predation on WPT or reduce

water quality. The natural resource management program in the HCP area reduces these impacts by informing all visitors they are to dispose of their trash in a trash dumpster and enforcing rules to ensure the campsites are maintained in a clean condition. As a result, the risk of an impact occurring is considered low and this indirect lethal impact is minor.

Conclusion: Results in a minor level of indirect lethal impact.

Pedestrian Activities (CA-3), Fishing (CA-5), and Holidays (CA-10). Most pedestrian- and equestrian-based activities have little, if any, effect on WPT or its habitat since WPT are found in aquatic habitats less frequented by visitors. Although it has never been observed in the HCP area, WPT could get caught by fisherman using bait in suitable aquatic habitat (e.g., Oso Flaco Lake) and could be injured or killed. WPT could also ingest a fishhook. WPT that ingest a fishhook typically die from the trauma or starve. This has been observed at other locations in California and Oregon where fishing is allowed but has never been observed in the HCP area. Despite the possibility for lethal impacts, they have not been observed in the HCP area to date and are considered unlikely to occur. As a result, this lethal impact is minor. This trend is expected to continue in the future.

Pedestrians crossing creeks, entering lagoons, and/or wading or fishing in freshwater habitats disturb basking WPT and deter them from basking and or foraging, which could increase stress and/or expose WPT to predation. However, these impacts are temporary, localized, and relatively short in duration and additional suitable habitat is present away from pedestrian activity where WPT can forage or bask. As a result, this non-lethal impact is minor. This trend is expected to continue in the future.

Indirect effects on WPT from pedestrian and/or fishing activities may include an increase in trash, which could potentially boost predator populations and thereby incidentally increase predation on WPT or reduce water quality. The natural resource management program in the HCP area reduces these impacts by informing all visitors they are to dispose of their trash in a trash dumpster and enforcing rules to ensure the campsites are maintained in a clean condition. The increase in visitors on holidays could increase the amount of trash in the HCP area; however, this is not likely to result in additional effects on WPT that have not previously been described. As a result, the risk of an impact occurring is low and this indirect lethal impact is minor. This trend is expected to continue in the future.

Pedestrian activity in freshwater habitats could also stir up sediment and increase turbidity in WPT aquatic habitat. If these activities are prolonged, the decrease in water quality could lead to decreased visibility, foraging, and/or reproductive success. However, these impacts are temporary, localized, and minimal. Although the number of visitors could increase on holidays, turbidity impacts would still be temporary and localized. As a result, this non-lethal impact is minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Result in a minor level of indirect lethal impacts.

Natural Resources Management

Tidewater Goby and Salmonid Surveys (CA-13), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), HMS (CA-18), and Water Quality Monitoring (CA-19). These activities have not resulted in mortality or injury of a WPT to date and are

unlikely to in the future since they are conducted by experienced natural resource staff members familiar with the species in the HCP area. As a result, the lethal impact on WPT is negligible.

Depending on the location of the tidewater goby/salmonid surveys, listed plant management, invasive plant and animal control, and water quality monitoring, WPT individuals can be present (e.g., Oso Flaco Lake), although impacts from the activities have not been documented to date. Any listed plant management (CA-15) for marsh sandwort and Gambel's watercress at Oso Flaco Lake, invasive plant or animal control (CA-17) in Oso Flaco Lake or other suitable aquatic habitat, and water quality monitoring (CA-19) can temporarily affect WPT, if present. Activities can disturb basking WPT and deter them from basking and or foraging, which could increase stress and/or expose WPT to predation. Interruption of basking may ultimately lead to a decrease in survival. Activities in Oso Flaco Lake and other suitable freshwater habitat associated with the natural resource management program is temporary and relatively short in duration. In addition, activities are conducted by natural resources staff familiar with the species in the HCP area. However, if activities in Oso Flaco Lake or other areas where WPT have previously been observed last for an extended period of time (i.e., longer than 15 minutes), a pre-construction survey for WPT is conducted, as determined to be necessary by a CDPR Environmental Scientist. If an individual is observed during the pre-construction survey, activities are delayed until the individual has moved from the area or until appropriate AMMs are in place. AMMs could include relocation and/or biological monitoring. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the non-lethal impacts are minor. This trend is expected to continue in the future.

Activities within aquatic habitats could indirectly affect WPT by temporarily stirring up sediment and increasing turbidity. If these activities are prolonged, the decrease in water quality could lead to decreased visibility, foraging, and/or reproductive success. However, sediment stirred up during activities are minimal, localized, and temporary. As a result, this non-lethal impact is minor. Ultimately, listed plant management, invasive pest plant and animal control, and water quality monitoring and improvements in aquatic habitat where WPT may occur, are beneficial to WPT by reducing invasive species in the area, increasing water quality, and providing more suitable habitat for WPT. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Overall beneficial impact.

CRLF Surveys and Management (CA-14). Most CRLF surveys are eyeshine surveys conducted from the edge of the waterbodies and only involve visually scanning for CRLF and/or egg masses. During these surveys, care is taken not to disturb sediments or vegetation; however, impacts could occur and the risk of an impact occurring is considered moderate. Specifically, eyeshine surveys could disturb basking WPT and deter them from basking and or foraging, which could increase stress and/or expose WPT to predation. As a result, this non-lethal impact is considered minor to moderate, depending on the duration of the disturbance. This trend is expected to continue in the future.

CDPR biologists or their contractors can impact WPT during CRLF monitoring surveys that involve dipnetting, although this has not been documented to date. During these surveys,

CDPR biologists could capture, injure, or kill a WPT. However, dipnetting surveys in the HCP area are infrequent and are conducted by an experience Service-approved or permitted biologist in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF. As a result, the risk of an impact occurring is low and these non-lethal and lethal impacts are minor. This trend is expected to continue in the future.

If dipnetting is conducted, these surveys involve biologists standing in water. Surveys within aquatic habitats can impact WPT by temporarily stirring up sediment and increasing turbidity. If these activities are prolonged, the decrease in water quality could lead to decreased visibility, foraging, and/or reproductive success. However, sediment stirred up during wading and/or dip netting activities is minimal, localized, and temporary and; therefore, this non-lethal impact is minor. CRLF surveys and management slightly benefit WPT since WPT often occupy the same habitat and WPT individuals and habitat are sometimes located during these surveys. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Overall slight beneficial impact.

Park Maintenance

Routine Riparian Maintenance (CA-26). Riparian maintenance activities that can affect WPT include the clearing of debris, vegetation, and sediment; riparian tree and shrub vegetation control (e.g., removing or trimming vegetation); and emergent and invasive species control. WPT are not known to occur within Meadow and Carpenter Creeks. WPT are known to occur in riparian areas at Oso Flaco Lake and Oceano Lagoon where maintenance activities are located. Lethal impacts to WPT are not expected since CDPR staff are trained in AMMs and/or escorted by a staff member trained in AMMs. If WPT are present in the riparian maintenance work area, they can be disturbed or caught by hand equipment used to remove sediment, debris, or vegetation. Disturbance can result in increased stress or cause WPT to move from cover where they are exposed to predation and other threats. As part of the natural resources program in the HCP area, activities are conducted during low flow periods (if feasible). In addition, pre-construction surveys are conducted by CDPR prior to conducting riparian maintenance, as determined necessary by a CDPR Environmental Scientist, within suitable aquatic habitat for WPT to avoid harm and injury to individual WPT. If an individual is observed during the pre-construction survey or during the riparian maintenance activities, activities are delayed until the individual has moved from the area or until appropriate AMMs are in place. AMMs could include relocation, exclusion fencing, and/or biological monitoring. With implementation AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that the non-lethal impacts from disturbance or capture are minor. This trend is expected to continue in the future.

Riparian maintenance activities at Oso Flaco Lake can temporarily result in an increase in turbidity especially if the in-stream vegetation traps and holds sediments. Temporarily suspended sediment can affect WPT by decreasing water quality, visibility, foraging opportunities, and/or reproductive success. However, sediment stirred up during activities are minimal, localized, and temporary. In addition, heavy equipment is not placed in the water, and any back-hoe work is restricted to the roadside or upper bank with only the bucket placed in the water body. As a result, this non-lethal impact is minor. Riparian

maintenance activities slightly benefit WPT by improving habitat. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Overall slight beneficial impact.

Visitor Services

Pismo Beach Golf Course Operations (CA-37). Despite being artificial and areas of periodic high human use, golf courses can provide suitable habitat for turtles. WPT have been observed in the Pismo State Beach golf course ponds and low-growing turf grass in sunny areas. WPT have not been documented as being impacted by golf course operations to date, however, impacts can occur during these activities. If WPT are present in the low-growing turf grass, golf course operations and maintenance activities, such as golf cart traffic and mowers can strike WPT individuals and injure or kill them. The potential for such incidents is low because golf carts travel on small, paved paths where WPT are less likely to occur. In addition, WPT are typically visible enough that the mower operators can avoid them. As a result, this lethal impact is considered minor. This trend is expected to continue in the future.

Pismo State Beach golf course activities near the golf course ponds can disturb basking WPT and deter them from basking and or foraging, which can increase stress and/or expose WPT to predation. However, most golf course activities (e.g., mowing, golfing) do not occur close enough to the ponds to disturb WPT. As a result, the risk of an impact occurring is low and this non-lethal impact is minor. This trend is expected to continue in the future.

Golf course maintenance may include removal of overgrown emergent vegetation, which could disturb, injure, or kill WPT. Disturbance can result in increased stress or cause WPT to move from cover where they are exposed to predation and other threats. However, these activities are typically conducted by hand and have not resulted in mortality or injury of a WPT to date. In addition, these impacts are typically localized and short in duration. As a result, lethal and non-lethal impacts to WPT from golf course activities are considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Other Activities

Vehicle Crossing of Creeks (CA-40). WPT are not known to occur in Arroyo Grande Creek or in Oso Flaco Creek in the areas where vehicles are permitted to cross and are unlikely to be present in this area since they require freshwater only; therefore, no impacts are likely to occur in these locations. WPT can occur in Carpenter Creek and can be impacted by motor vehicles crossing this creek. WPT may be inadvertently struck by a vehicle; however, this is unlikely since WPT have never been observed in this area and vehicle operators crossing the creek are encouraged to cross in areas with no or low flow and travel at speeds of less than 15 miles per hour. As a result, this lethal impact is minor. This trend is expected to continue in the future.

Vehicles crossing Carpenter Creek can stir up sediment and increase turbidity in the creek. If these activities are prolonged, the decrease in water quality could lead to decreased visibility, foraging, and/or reproductive success. However, these impacts are minimal, localized, and temporary. As a result, this non-lethal impact is minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Use of Pesticides (CA-51). The District Draft Aquatic Pesticide Application Plan (APAP) states that imazapyr and glyphosate are both used within aquatic habitats. The APAP also states that both these pesticides have been found to have low toxicity to wildlife since they target specific enzymes for plants needed to process aromatic amino acids. As a result, direct WPT mortality is not expected from pesticide use in aquatic habitats. In addition, application of these pesticides takes place between October 1 and February 28 when WPT are less likely to be present. As a result, lethal impacts are considered negligible.

Application of pesticides could disturb basking WPT and deter them from basking and or foraging, which could increase stress and/or expose WPT to predation. As part of the natural resources program in the HCP area, pre-construction surveys are conducted by CDPR prior to conducting pesticide application, as determined necessary by a CDPR Environmental Scientist, within suitable aquatic habitat for WPT. If an individual is observed during the pre-construction survey or during activities, activities are delayed until the individual has moved from the area or until appropriate AMMs are in place. AMMs could include relocation, exclusion fencing, and/or biological monitoring. As a result, the risk of an impact occurring is low to moderate, depending on the course of action taken. Overall, with the implementation of AMMs, the non-lethal impacts are considered minor.

Broad-scale insecticide use to reduce mosquito larvae in wetland areas that contain WPTs may reduce invertebrate prey, although label restrictions on the pesticide products are designed to reduce that risk and all pesticides in the HCP area are used in accordance with the label. Herbicide use for aquatic invasive plants may alter the availability of cover and basking sites especially for very small turtles and result in minor habitat impacts. However, no relevant information was found detailing either of these potential threats. Overall, pesticides have a beneficial effect on WPT by preventing encroachment of invasive plants and allowing the establishment of native plants. This trend is expected to continue in the future.

Conclusion: Results in a minor to moderate level of non-lethal, depending on the duration of the disturbance. Results in a minor level of habitat impacts. Overall beneficial impact.

Effects of ITP Covered New Activities on Western Pond Turtle

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to WPT from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

New ITP covered activities with no or negligible impact to WPT include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), general facilities maintenance – mechanical trash removal (CA-21), Pismo Creek Estuary seasonal floating bridge (CA-41), riding in 40 Acres (CA-42), dust control activities – New PMRP Foredune Vegetation (CA-44), special projects (CA-49), reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR use of UAS (CA-52).

Minor to Moderate Impacts

Other Activities

Oso Flaco Boardwalk Replacement (CA-48). WPT is known to occur in aquatic habitat of the Oso Flaco Lake area. The Oso Flaco Boardwalk spans approximately 940 linear feet of aquatic habitat, including wetlands and open water. Although the layout or location of the new boardwalk might need to shift slightly to accommodate conditions at the time of replacement, such as changes in building 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 aquatic habitat. This would be a minor habitat impact.

Replacing the boardwalk would cause temporary disturbance of WPT aquatic habitat. Construction activity to replace boardwalk segments could also potentially harm or kill individual WPT if they are present in the work area. WPT could also be temporarily disturbed by activities and deterred from basking and or foraging, which could increase stress and/or expose WPT to predation. Pre-construction surveys would be required by CDPR prior to conducting boardwalk replacement activities in Oso Flaco Lake to avoid harm and injury to individual WPT. If an individual is observed during the pre-construction survey or during the replacement activities, activities would be delayed until the individual has moved from the area or until appropriate AMMs are in place. AMMs could include relocation and/or biological monitoring. With the implementation of AMMs, the risk of impacts occurring is low to moderate depending on the course of action taken. However, the AMMs ensure that lethal impacts to WPT would be negligible and non-lethal impacts to WPT would be minor.

Conclusion: Results in a minor level of non-lethal impacts. Results in a minor level of habitat impacts.

Western Burrowing Owl

Western burrowing owls in California generally breed from February 1 to August 31. Breeding burrowing owls are not anticipated to occur within the HCP area. Therefore, no impacts to breeding burrowing owls would occur. Burrowing owls are also found in burrows outside the breeding season from September 1 to January 31. CDFW provides recommendations to avoid and minimize disturbance burrowing owl in both the breeding and non-breeding season.

Burrowing owl may be found in suitable small mammal burrows, in dune vegetation, and/or near woody debris on the beach. To date, burrowing owls have been observed in the HCP area at Oso Flaco Lake in 1999 and 2012, in the Phillips 66 Leasehold in 2006, near the chemical toilets on the beach in 2005 and 2006, at Oceano Lagoon in 2010, at the Grand Avenue ramp in 2019, and in the Oso Flaco Lake parking lot in 2019. In addition, burrowing owl tracks were observed at Pavilion Hill in 2016 (R. Chapman, pers. comm 2016). Therefore, wintering burrowing owls could be impacted by existing covered activities.

Effects of ITP Covered Existing Activities on Western Burrowing Owl

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to western burrowing owl from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to western burrowing owl from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside of western burrowing owl habitat have no or negligible risk of impacting these species and are not further discussed. ITP covered existing activities with no impact to western burrowing owl include bicycling and golfing (CA-4), fishing (CA-5), boating and surfing (CA-8), SNPL and CLTE management (CA-12a and 12b), tidewater goby and salmonid surveys (CA-13), CRLF surveys and management (CA-14), water quality monitoring (CA-19), routine riparian maintenance (CA-26), cable fence maintenance (CA-28), Pismo Beach Golf Course operations (CA-37), natural history/interpretation (CA-39), vehicle crossing of creeks (CA-40), and CDPR ag land management (CA-46).

Minor to Moderate Impacts

Park Visitor Activities

Motorized recreation (CA-1), camping (CA-2), pedestrian recreation (CA-3), dog walking (CA-6), equestrian recreation (CA-7), aerial/wind driven activities (CA-9). Although infrequent, burrowing owls have been observed in the HCP area in the winter in areas where vehicles are permitted, including Oso Flaco Lake parking lot, Grand Avenue ramp, and the open riding area. Burrowing owls within areas where motorized vehicles are permitted could be struck by vehicles and injured or killed or burrows/winter habitat cover could be crushed or destroyed. However, as stated previously, western burrowing owl is uncommon in the areas open to motorized vehicles and, to date, has only rarely been observed in these areas. In addition, most birds fly out of harm's way and; therefore, this risk of this impact occurring is low. As a result, lethal impacts from motorized activities on western burrowing owl within the HCP area are minor. This trend is expected to continue in the future.

Pedestrians are allowed in areas where motorized vehicles are not, including the Oso Flaco area. Pedestrians moving through habitat occupied by burrowing owl can disturb burrowing owl individuals, potentially resulting in the abandonment of burrows/cover locations and alter their normal behavior patterns. Foraging burrowing owls interrupted by humans can stop foraging and move away from the area until the disturbance has passed. Burrowing

owl in burrows, dune vegetation, and/or behind wooden debris may flush from these locations and be exposed to predators and inclement weather. Stationary activities, such as picnicking and sunbathing, can displace burrowing owl for longer periods. Although burrowing owls are uncommon in the HCP area and this impact is unlikely to occur, this non-lethal impact is considered minor to moderate, depending on the duration of impacts. This trend is expected to continue in the future.

Covered activities could alter suitable wintering habitat by temporarily changing the microtopography or removing organic material (e.g., woody debris) that wintering owls use for cover. However, most covered activities are associated with recreation activities where burrowing owl are less likely to occur due to the ongoing level of disturbance. In addition, suitable habitat is available in other locations in the HCP area, so burrowing owls can move from the area of disturbance to a more suitable location. As a result, impacts to habitat are considered minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL and CLTE. CDPR implements SNPL AMMs 32 to 42 and CLTE AMMs 24 through 33 to reduce the effects of trash, which also benefits species such as burrowing owl. However, generalist predators continue to be present in the HCP that could prey on burrowing owl; therefore, this indirect lethal impact is moderate. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal impacts. Results in a minor to moderate level (depending on the duration of impacts) non-lethal impacts. Results in a moderate level of indirect lethal impacts. Results in a minor level of habitat impacts.

Holidays (CA-10) and Special Events (CA-11). Potential impacts to burrowing owl from visitor activities are likely exacerbated during periods of high visitor use, such as holidays (CA-10) and special events (CA-11) that occur during the wintertime. Holidays that increase visitor presence in the HCP area during this time include, but are not limited to, Thanksgiving, Christmas, New Years, and Martin Luther King holidays. Holidays do not increase the number of day use or camping vehicles or OHV allowed on the beach; however, additional pedestrian activity could occur during holidays, which could exacerbate the effects of pedestrian activities described above depending on the location and number of visitors. As a result, risk of non-lethal impacts from holidays on burrowing owls is minor to moderate, depending on the duration of activities and number of visitors. This trend is expected to continue in the future.

Conclusion: Results in a minor to moderate level (depending on the duration of the impact) of non-lethal impacts.

Park Maintenance, Visitor Services, and Natural Resources Management Activities

Listed plant management (CA-15), invasive plant and animal control (CA-17), HMS (CA-18), general facilities maintenance (CA-21), trash control (CA-22), heavy equipment response (CA-29), life guard and ranger patrols (CA-32), emergency response (CA-33), access by non-CDPR vehicles (CA-34), and beach concessions (CA-36). Park operation and natural resource management covered activities within the vicinity of a burrowing or foraging

burrowing owl are not expected to result in lethal impacts on burrowing owl but can temporarily displace individuals from their winter habitat or from foraging, altering their normal behavior patterns. Activities can 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, many park operation and natural resource management covered activities are temporary and short in duration. Finally, pre-construction surveys are conducted, as determined to be necessary by CDPR Environmental Scientist staff, prior to park operation and natural resource management activities to reduce impacts to wintering burrowing owl that are known to occur in the HCP area. If a wintering burrowing owl is observed, activities are delayed until the individual has moved from the area or until appropriate AMMs (e.g., biological monitoring) are in place. As a result, non-lethal impacts from park operation and natural resource management are considered minor. The HMS has a slight beneficial impact on this species by providing useful information on the species distribution and habitat in the HCP area. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Beneficial impact from the HMS.

Other Activities

Dust Control Activities (CA-44). Dust control activities in the HCP area are already occurring as part of the Dust Control Program EIR. Dust control activities require pre-construction surveys for burrowing owl during the winter season (September 1 through February 28). If any burrows are found and determined to be occupied, dust control activities cannot occur within 100 feet of the burrow location. As a result, lethal impacts to burrowing owl are negligible.

Disturbance impacts to burrowing owl within burrows from dust control activities do not occur due to the 100 foot no disturbance buffer. If burrowing owl are in the area, dust control activities can temporarily displace foraging individuals or individuals using woody debris or dune vegetation for cover, altering their normal behavior patterns. Dust control activities can also displace birds from safe resting locations and move them into areas where they are vulnerable to predation and recreation disturbance. As a result, non-lethal impacts on burrowing owl within the HCP area are minor to moderate depending on the duration of the impact.

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 may 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 could increase the amount of vegetative cover. Overall, the habitat impacts are unknown and could range from minor to moderate.

Conclusion: Results in a minor to moderate level (depending on the duration of impact) of non-lethal impacts. Results in a minor to moderate level of habitat impacts.

Use of Pesticide (CA-51). Pesticide use occurs by CDPR staff or by contractors working under the direction of CDPR staff who are trained in avoidance and minimization protocols. Burrowing owl can be impacted by drift from herbicide. However, as part of the natural resource management program in the HCP area, measures are implemented to reduce impacts from drift, which include not spraying if wind speed is over 10 miles per hour and ensuring all workers are trained to work in sensitive habitat. In addition, best management practices are implemented when applying pesticides. Pesticides used in the HCP area do not result in lethal impacts to birds. This trend is expected to continue in the future.

Pesticide application can result in disturbance of individual burrowing owl by deterring them from resting or foraging. Helicopter sprayers flying within the HCP area can be highly disruptive to birds and may cause burrowing owl to flush from the cover. However, as part of their standard practice, CDPR conducts surveys for special-status species, including burrowing owl, prior to conducting ground application of herbicides if the activities are determined by a CDPR Environmental Scientist to have potential to impact burrowing owl. If a burrowing owl individual is observed, activities are delayed until appropriate AMMs are in place. AMMs include establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. Helicopter spraying in the HCP area is infrequent and is conducted quickly (e.g., 90 acres in approximately 2.5 hours). As a result, any impacts to burrowing owl from helicopter activity are infrequent and short in duration. As a result, non-lethal impacts from pesticides are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts.

Effects of ITP Covered New Activities on Western Burrowing Owl

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to western burrowing owl from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside of western burrowing owl habitat or areas where western burrowing owl individuals or sign (e.g., feathers, pellets, burrows) have been observed have no or negligible risk of impacting western burrowing owl and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to western burrowing owl include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), Pismo Creek Estuary seasonal floating bridge (CA-41), Oso Flaco boardwalk replacement (CA-48), and Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50).

Minor to Moderate Impacts

Park Maintenance

General Facilities Maintenance (CA-21) – Mechanical Trash Removal). Burrowing owls would be expected to fly out of harm's way if they are within the mechanical trash removal

area. Mechanical trash removal could result in destruction of burrowing owl burrows or other winter cover locations and temporarily displace wintering burrowing owls and/or alter normal behavior patterns. However, the risk of this impact occurring is low since western burrowing owl is uncommon with the HCP area. In addition, mechanical trash removal equipment would travel at a speed of no more than 10 mph and a CDPR Environmental Scientist would survey the area prior to equipment use. As a result, the risk of an impact occurring is low and the lethal and non-lethal impacts would be minor.

Mechanical trash removal 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. In addition, driftwood and other organic materials would be expected to naturally develop again over time in many mechanical trash removal areas. Therefore, any impacts from mechanical trash removal to habitat would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of habitat impacts.

Other Activities

Riding in 40 Acres (CA-42). Riding in 40 Acres trail construction and recreational use are not expected to result in destruction of burrowing owl burrows or vehicle strike of burrowing owl individuals because burrowing owls or sign have not been observed in the 40 Acre area. As a result, lethal impacts from these activities are not expected and the impact would be negligible.

If a burrowing owl is present within the vicinity of 40 Acres 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 and typically occurs in locations where these activities are not expected. In addition, as part of CDPR's standard practices in the HCP area, pre-construction surveys would be conducted prior to construction, as determined to be necessary by a CDPR Environmental Scientist, to avoid harm and injury to individual burrowing owls. 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 AMMs are in place (e.g., a no-disturbance buffer). As a result, the non-lethal impacts to western burrowing owl from riding in 40 Acres would be minor.

Conclusion: Results in a minor level of non-lethal impacts.

Dust Control Activities– New PMRP Foredune Vegetation (CA-44). 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 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, dust control 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 their standard practices, CDPR would conduct pre-construction surveys for burrowing owl, if determined to

be necessary by a CDPR Environmental Scientist, to avoid disturbing wintering burrowing owl. If an individual is observed, activities would be delayed or appropriate AMMs (e.g., no-disturbance buffer) would be implemented. As a result, the risk of an impact occurring is low and the non-lethal impacts would be minor.

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 could increase the amount of vegetative cover. Overall, the habitat impacts are expected to be minor.

Conclusion: Results in a minor level of non-lethal impacts. Results in a minor level of habitat impacts.

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 CDPR's standard practices in the HCP area, 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 Environmental Scientist, to avoid harm and injury to individual burrowing owls. 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 AMMs are in place (e.g., a no-disturbance buffer). With implementation of this measure, the risk of an impact occurring is low and the non-lethal impacts on burrowing owl would be minor.

If a burrowing owl is present within the vicinity of special project activities, it could be injured or killed or 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 and typically occurs in locations where these activities are not expected. In addition, pre-construction surveys would be conducted prior to construction, as determined to be necessary by a CDPR Environmental Scientist, to avoid harm and injury to individual burrowing owls. 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 AMMs are in place (e.g., a no-disturbance buffer). As a result, the lethal are not expected and non-lethal impacts to western burrowing owl from special projects would be minor.

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 are expected to be minor.

Conclusion: Results in a minor level of non-lethal impacts. Results in a minor level of habitat impacts.

Use of UAS (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 or burrows could result in an individual flushing from the area or increased vigilance. If the UAS is seen as a big enough threat, a burrowing owl could abandon their 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 flights are approved by the Environmental Resources Project Manager. As a result, the risk of an impact occurring is low and UAS are expected to have minor, non-lethal impacts on burrowing owl.

Conclusion: Results in a minor level of non-lethal impacts.

Nesting Birds

Existing park operations, including recreation, natural resources management, park maintenance, visitor services, and other existing activities could impact nesting birds in different ways depending on their preferred nesting habitat. As a result, impacts could occur anywhere in the HCP area. For example, activities that take place on the beach, could impact nesting shorebirds or other ground nesting birds, including the special-status California horned lark. Activities at Oso Flaco Lake and within riparian areas could impact nesting songbirds, waterbirds, and raptors, including special-status species such as yellow warbler, least bittern, white-tailed kite, and northern harrier. Activities adjacent to trees or other perches in the HCP area could impact nesting songbirds or raptors, including special-status species such as white-tailed kite, loggerhead shrike, and American peregrine falcon. Any impacts that occur to nesting birds would only occur during the nesting season (generally February 1 through September 15 for raptors and March 1 through August 31 for passerines and other non-raptors).

Effects of ITP Covered Existing Activities on Nesting Birds

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to nesting birds from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to nesting birds, including common and special-status nesting birds, from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

CDPR ag land management (CA-46) would occur on agricultural lands outside of nesting bird habitat. This ITP covered new activity would have no or negligible effect on nesting birds and is therefore dismissed from further discussion.

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Bicycling and Golfing (CA-4), Dog Walking (CA-6), Equestrian Recreation (CA-7), and Aerial/Wind Driven Activities (CA-9). These recreation activities occur on a daily basis in the HCP area, including during the breeding and non-breeding season. Due to the high level of disturbance from the existing recreation activities, only those birds adapted to nesting in urban areas, such as American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), are thought to be impacted by these activities. Nests for these species are typically located in trees and shrubs that are not directly impacted by these activities. As a result, injury or mortality of nesting birds are not expected, and lethal impacts from these recreational activities on nesting birds within the HCP area are considered negligible. This trend is expected to continue in the future.

Covered activities within the vicinity of a nesting bird can temporarily displace individuals from their nest or from foraging, altering their normal behavior patterns. However, birds that nest in this area are adapted to a high level of disturbance from existing recreation activities. In addition, many covered activities are temporary and short in duration and only disturb the nesting bird during the period that activity is located within the vicinity of the nest. As a result, non-lethal impacts are considered minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL and CLTE. CDPR implements SNPL AMMs 32 to 42 and CLTE AMMs 24 through 33 to reduce the effects of trash and these AMMs also protect nesting birds. However, generalist predators continue to be present in the HCP that could prey on nesting birds; therefore, this indirect lethal impact is moderate. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Results in a moderate level of indirect lethal impacts.

Pedestrian Activities (CA-3), Holidays (CA-10), and Special Events (CA-11). Pedestrians are permitted in areas that motorized vehicles are not (e.g., vegetation islands, South Oso Flaco) where suitable habitat for nesting birds (e.g., shrubs, trees) are located. In addition, pedestrians occur in developed areas (e.g., campgrounds) where common, urban adapted birds are known to nest. Nests for most avian species occur above the ground in a tree or shrub and are not impacted by pedestrians. Pedestrians can inadvertently crush/kill eggs or chicks in a nest within a low-lying shrub or on the ground, although this is unlikely since any birds that use low-lying shrubs for nesting or nest on the ground are not found in areas that are regularly disturbed by pedestrian activity. As a result, this lethal impact is minor. This trend is expected to continue in the future.

Recreationists increase the presence of trash as described above for motorized recreation (CA-1) and camping (CA-2) for SNPL and CLTE. CDPR implements SNPL AMMs 32 to 42 and CLTE AMMs 24 through 33 to reduce the effects of trash and these AMMs benefit other nesting birds in the HCP area as well. Despite this, generalist predators still remain the area and this indirect lethal impact is moderate. This trend is expected to continue in the future.

Potential impacts to nesting birds from visitor activities may be exacerbated during periods of high visitor use, such as holidays (CA-10) or special events (CA-11) the same as described for SNPL. As a result, non-lethal impacts from holidays and special events on nesting birds are moderate. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal impacts. Results in a moderate level of non-lethal and indirect lethal impacts.

Fishing (CA-5), Boating/Surfing (CA-8). Fishing and/or boating could disturb riparian and aquatic nesting individuals in the HCP area, including special-status species such as yellow warbler and least bittern. Nesting adults could be driven from the nest and, ultimately, neglect or abandon the eggs or chicks. Foraging adults interrupted by humans stop foraging and move away from the area until the disturbance has passed. Fishing can displace individuals for long periods if the visitor remains in the same place for a long period of time. However, within the HCP area fishing occurs along the shoreline or at Oso Flaco Lake. Impacts to nesting birds along the shoreline are similar to those discussed under impacts to CLTE and SNPL above since these birds are known to nest near the shoreline. Oso Flaco Lake is currently posted with fish advisory signs. As a result, fishing at Oso Flaco Lake is not common and impacts are minimal when a visitor does fish at this location. As a result, the non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts.

Natural Resources Management

SNPL and CLTE Management (CA-12). Most nesting birds are not impacted by SNPL management activities since these activities occur on the open beach where SNPL and CLTE nest. Ground nesting birds, including California horned lark and killdeer (*Charadrius vociferous*), are known to nest in the HCP area in similar habitat to SNPL and CLTE and may be injured or killed or a nest may be crushed by a CDPR staff vehicle during SNPL and CLTE management activities. However, the activities occur by CDPR staff who are trained in avoidance and minimization protocols. As a result, lethal impacts to ground nesting birds from SNPL and CLTE management activities including monitoring, erecting exclosures, salvage and rescue, and banding have not been documented in the HCP area and are not thought to occur. Therefore, lethal impacts from SNPL and CLTE management activities are negligible. This trend is expected to continue in the future.

SNPL and CLTE management activities could disturb foraging or nesting individuals if nests are located adjacent to areas where SNPL and CLTE nest. 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. Because CDPR staff are trained in avoidance and minimization protocols, all CDPR staff surveys for nesting birds, as appropriate. In addition, most activities are short in duration and only result in temporary disturbances to any nearby nesting birds. As a result, the risk of an impact occurring is low and the non-lethal impacts to nesting birds from these activities are considered minor. This trend is expected to continue in the future.

Raptors and other potential avian predators, such as American peregrine falcon, loggerhead shrike, and northern harrier, that are observed targeting SNPL and CLTE are either trapped and removed or killed as authorized under the Service depredation permit number MB25976A-0 and in coordination with the CDFW. As a result, predator management program activities could result in mortality or removal of adult raptors or other potential SNPL and CLTE avian predators during the nesting season, which ultimately leads to the abandonment of eggs or chicks. CDPR implements all measures in the depredation permit prior to targeting a potential predator for removal, including attempting to determine if the bird is associated with a nest by observing behavior, in order to minimize this impact. Harassment of potential avian predators using hazing techniques could disturb foraging or nesting individuals. 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 hazing activities could stop foraging and/or become stressed until the disturbance has passed. As a result, lethal and non-lethal impacts from predator management activities on nesting raptors or other potential SNPL and CLTE avian predators are moderate. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal and non-lethal impacts.

CRLF Surveys and Management (CA-14). CRLF surveys and management do not result in injury or mortality of nesting birds. CRLF surveys and management occur adjacent to and within waterbodies from February to October, some of which occurs during the avian nesting season. CRLF surveys conducted during the breeding season could disturb riparian or aquatic nesting birds, including, but not limited to, special-status species such as yellow warbler and least bittern. 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, which could lead to energetic stress. CRLF surveys are conducted by qualified biologists experienced in recognizing breeding behavior and familiar with nesting bird AMMs, however, some disturbance of nesting birds could still occur. As a result, the risk of an impact occurring is low and this non-lethal impact is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts.

Tidewater Goby and Salmonid Surveys (CA-13), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), HMS (CA-18), and Water Quality Monitoring (CA-19). Lethal impacts to nesting birds are not known to occur from these activities and are not thought to occur since these activities do not remove trees or other structures that birds typically nest in. These activities occur by CDPR staff who are trained in avoidance and minimization protocols. However, despite this, these activities, if they occur in suitable habitat for nesting birds, could result in non-lethal impacts to nesting birds. Specifically, activities during the breeding season can disturb nesting birds and deter them from incubating eggs or chicks during the period of disturbance. These activities can also disturb foraging birds by displacing them from foraging habitat during the period of disturbance and/or deterring them from foraging during the period of disturbance, which could lead to energetic stress and/or emaciation. As part of their standard practice, CDPR conducts a

nesting bird survey prior to conducting the activity if any activities are determined by a CDPR Environmental Scientist to have potential to impact nesting birds. If a nest is observed, activities are delayed until appropriate AMMs are in place. AMMs include establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. As a result, the risk of an impact occurring is low and the non-lethal impact from these activities on nesting birds is considered minor. In addition, invasive plant and animal control can benefit many nesting birds by improving habitat and reducing potential predators or competing species in the HCP area. The HMS also benefits nesting birds by providing additional information on nesting bird species and distribution in the HCP area. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Overall beneficial impact from CA-17, CA-18, and CA-19.

Park Maintenance

General Maintenance Activities (CA-21), Trash Control (CA-22), Cable Fence Maintenance (CA-28), and Heavy Equipment Response (CA-29). The activities occur by CDPR staff who are trained in avoidance and minimization protocols. Trash control, cable fencing, heavy equipment response, and general facilities maintenance generally occur in open sand areas or within developed areas of the park, where only common, urban adapted species are known to nest. Lethal impacts to nesting bird species from these activities don't occur since trees and other structures where birds nest are not removed by these activities. Therefore, the lethal impact from these activities is negligible. This trend is expected to continue in the future.

Some ground nesting birds are known to nest in the HCP area, including California horned lark and killdeer. Ground nesting birds are sensitive to disturbance and are not known to nest in areas of high recreational or vehicle activity. However, if these activities occur in suitable habitat for these species away from recreation activities, they can result in destruction of a ground nesting bird nest during the breeding season. As part of the natural resource management program, precautions for SNPL and CLTE are taken when driving in areas where SNPL or CLTE could nest that also protect other ground nesting birds in these areas. In addition, as part of their standard practice, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a CDPR Environmental Scientist to have potential to impact nesting birds. If a nest is observed, activities are delayed until appropriate AMMs are in place. AMMs include establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. As a result, the risk of an impact occurring is low and this lethal impact is minor. This trend is expected to continue in the future.

All of these activities, when conducted during the breeding season, can disturb nearby nesting birds and deter them from incubating eggs or chicks during the period of disturbance. These activities can also disturb foraging birds by displacing them from foraging habitat during the period of disturbance and/or deter them from foraging during the period of disturbance. However, any activities, are relatively short in duration. In addition, as part of their standard practice, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a CDPR Environmental Scientist to have potential to impact nesting birds. If a nest is observed, activities are delayed until appropriate AMMs are in place. AMMs include establishing a no disturbance buffer, as determined by a

qualified biologist, and/or conducting biological monitoring. As a result, the risk of an impact occurring is low and the non-lethal impact from these activities on nesting birds is considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Routine Riparian Maintenance (CA-26). Riparian maintenance activities only impact riparian or aquatic nesting birds, including special-status species least bittern and yellow warbler. Riparian maintenance activities can result in destruction of a bird nest if they are present within the work area. Riparian maintenance activities can also disturb nearby nesting birds and drive adult birds from the nest and, ultimately, lead to neglect or abandonment of eggs or chicks. However, riparian maintenance activities generally occur outside the recognized nesting season and if they are within the nesting season, the Streambed Alternation Agreement (1600-2012-0001-R4) lays out pre-project survey requirements. If a nesting birds is found, a buffer zone is required around the nest until the young have fledged. With implementation of this project requirement, the risk of an impact occurring is low and the lethal and non-lethal impact on nesting birds is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Visitor Services

Ranger, Lifeguard, Park Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), Beach Concessions (CA-36), Pismo Beach Golf Course operations (CA-37), and Natural History/Interpretation (CA-39). Many of these activities, including CA-32, CA-33, CA-34, CA-36, and CA-37 occur in areas of high disturbance where only common, urban adapted species nest. Natural history/interpretation (CA-39) occurs in areas of the park where other birds, including riparian birds and waterbirds are known to nest.

Injury or mortality to nesting species and/or destruction of nests do not occur from these activities since trees and other structures, where birds are known to nest, are not removed by these activities. Therefore, the lethal impact from these activities is negligible. This trend is expected to continue in the future.

These activities and associated vehicle travel during the breeding season can disturb nesting birds and deter them from incubating eggs or chicks during the period of disturbance. These activities can also disturb foraging birds by displacing them from foraging habitat during the period of disturbance and/or deter them from foraging during the period of disturbance. However, any activities, including, but not limited, vehicle travel to the beach concessions, vehicle travel and park patrol stops, and emergency response are relatively short in duration and last only the period of time that a vehicle travels through. In addition, natural history/interpretation programs are conducted by CDPR staff trained to identify nesting bird behavior and are conducted away from areas where birds nest. As a result, the risk of an impact occurring is low and the non-lethal impact from these activities on nesting birds is considered minor. This trend is expected to continue in the future.

Medevac helicopters are sometimes used in the HCP area during emergencies. Medevac helicopters flying low over or landing within the HCP area can cause significant disturbance

to nesting birds. The noise from the helicopter can be highly disruptive to nesting birds and the helicopter itself could be seen as a threat, especially to nesting raptors. Adults may flush from the nest and leave the eggs unattended, and wind generated by the rotors may move enough sand to bury any ground nests in the area. Nests or chicks can also be abandoned if the adult is disturbed enough that it does not return to the nest or chicks. In addition, helicopters can lead to increased vigilance in adults which could lead to them being energetically stressed or to reduced foraging. However, helicopter activity in the HCP area is a sporadic event; therefore, this non-lethal impact is rarely (if ever) expected to occur and is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts.

Other Activities

Dust Control Activities (CA-44). Dust control activities do not impact aquatic or riparian nesting birds, since these activities do not occur in aquatic or riparian habitat. Dust control activities can result in destruction of a bird nest if they are present within the work area. Dust control activities can also disturb nearby nesting birds and drive adult birds from the nest and, ultimately, lead to neglect or abandonment of eggs or chicks. However, dust control activities already require pre-construction surveys for nesting birds from February 1 to August 15 in accordance with the Oceano Dunes SVRA Dust Control Program MMRP (CDPR 2017). If a nesting birds is found, a buffer zone is established around the nest until the young have fledged. With implementation of this project requirement, the risk of an impact occurring is low and the lethal and non-lethal impact on nesting birds is minor.

Planting vegetation associated with dust control activities within the HCP area can reduce available suitable nesting habitat for some ground nesting birds, including the special-status 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. As a result, the habitat impacts are minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of habitat impacts.

Vehicle Crossing of Creeks (CA-40). Vehicle crossing of creeks occurs close to the shore where birds do not nest. A vehicle crossing a creek can injure or kill an adult or juvenile, or chick (if precocial) foraging in the area. This has not been documented in the HCP area but may be difficult to observe. However, it is unlikely that an individual is struck by a vehicle crossing a creek since few nesting birds in the HCP area forage for long periods within the portion of the creek crossed by vehicles and vehicles crossing creeks are expected to follow the posted speed limits. In addition, most foraging birds typically fly out of harm's way. Vehicles crossing creeks can also disturb foraging birds by displacing them from foraging habitat during the period of disturbance and/or deter them from foraging during the period of disturbance, which could lead to energetic stress and/or emaciation. However, most vehicle crossings are expected to be temporary and short in duration. As a result, lethal and non-lethal impacts from vehicles crossing creeks in the HCP are considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Use of Pesticide (CA-51). This activity occurs by CDPR staff who are trained in avoidance and minimization protocols. Nesting birds can be impacted by drift from herbicide. However, as part of the natural resource management program in the HCP area, measures are implemented to reduce impacts from drift, which include not spraying if wind speed is over 10 miles per hour and ensuring all workers are trained to work in sensitive habitat. In addition, best management practices are implemented when applying pesticides. Pesticides used in the HCP area do not result in lethal impacts to nesting birds.

Pesticide application can result in disturbance of nesting birds and nesting birds can be deterred from incubating eggs or brooding chicks. However, as part of their standard practice, conducts a nesting bird survey prior to conducting any ground herbicide application activity if any activities are determined by a CDPR Environmental Scientist to have potential to impact nesting birds. If a nest is observed, activities are delayed until appropriate AMMs are in place. AMMs include establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. Helicopters sprayers flying within the HCP area can cause significant disturbance to nesting birds. The noise from the helicopter can be highly disruptive to nesting birds and the helicopter itself could be seen as a threat, especially to nesting raptors. Adults may flush from the nest and leave the eggs unattended. However, helicopter spraying is not conducted within 200 feet of a riparian area or wetland; therefore, riparian nesting birds are not impacted. In addition, helicopter application is conducted infrequently and can be conducted quickly (e.g., 90 acres in about 2.5 hours); therefore, any disturbance from helicopters is infrequent and short in duration. As a result, the risk of impacting a nesting bird is low. Overall, non-lethal impacts from pesticides are minor. Ultimately, pesticide use in the HCP area is beneficial to many nesting birds by reducing the spread of invasive plant species into breeding habitat. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Overall beneficial impact.

Effects of ITP Covered New Activities on Nesting Birds

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to nesting birds, including common and special-status nesting birds, from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

Minor to Moderate Impacts

Natural Resource Management

SNPL and CLTE Management – SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened Recreational Activity 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. If a nest

were 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) permitting biologist (or a biologist approved by the Service) that would ensure any disturbance to other nesting birds was minimized. In addition, as part of CDPR's standard practices, nesting bird surveys would be conducted, as determined to be necessary by a CDPR Environmental Scientist, prior to conducting activities. If a nest is observed, activities would be delayed until appropriate AMMs are in place. AMMs would include a no-disturbance buffer, as determined by CDPR Environmental Scientist staff, and/or biological monitoring. As a result, the risk of an impact occurring is low and the lethal and non-lethal impacts would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

SNPL Adult Banding (CA-12b). SNPL adult banding would occur on the open sand beaches where SNPL nests occur. The only birds known to nest on the open sand beaches are ground nesting birds, such as California horned lark and killdeer. If a nest were 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 Service) that would ensure any disturbance to other nesting birds was minimized. In addition, as part of CDPR's standard practices, nesting bird surveys would be conducted, as determined to be necessary by a CDPR Environmental Scientist, prior to conducting activities. If a nest is observed, activities would be delayed until appropriate AMMs are in place. AMMs would include a no-disturbance buffer, as determined by CDPR Environmental Scientist staff, and/or biological monitoring. As a result, the risk of an impact occurring is low and the lethal and non-lethal impact would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Park Maintenance

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. As a result, riparian and aquatic nesting birds would not be impacted by the mechanical trash removal. 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 ground-nesting bird, including the special-status California horned lark, within the area where activities occur. Mechanical trash removal activities could also disturb nesting birds within or adjacent to the area where activities would occur. 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, which could lead to energetic stress and/or emaciation. However, mechanical trash removal would occur in areas where recreation disturbance is already high and, therefore, birds are unlikely to nest. In addition, as part of the natural resource management program in the HCP area, CDPR Environmental Scientist staff would inspect and approve the area subject to mechanical trash removal prior to each deployment. As a

result, the risk of an impact occurring is low and lethal and non-lethal impacts from mechanical trash removal activities on nesting birds would be minor.

Mechanical trash removal could affect favorable nesting habitat for some ground nesting birds (e.g., California horned lark, killdeer) 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. In addition, due to the high level of disturbance already occurring in these areas, birds are unlikely to nest in mechanical trash removal locations. As a result, mechanical trash removal would have minor impacts on ground nesting bird habitat.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of habitat impacts.

Other Activities

Pismo Creek Estuary Floating Bridge (CA-41). Birds would not nest in the location 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 construction activities would be temporary and relatively short in duration. In addition, all construction and pedestrian activities would be temporary and relatively short-term in nature. As a result, lethal impacts on nesting birds from the Pismo Creek Estuary floating bridge would not be expected and non-lethal impacts from the Pismo Creek Estuary floating bridge on nesting birds would be minor.

Conclusion: Results in a minor level of non-lethal impacts.

Riding in 40 Acres (CA-42). The 40 Acres site comprises vegetated dunes in the direction of the Oso Flaco Lake area. Nesting birds could be present in the 40 Acres 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. However, if activities occur during the breeding season, as part of CDPR's standard practices, nesting bird surveys would be conducted prior to conducting trail construction activities. If a nest is observed, activities would be delayed until appropriate AMMs are in place. AMMs would include a no-disturbance buffer, as determined by CDPR Environmental Scientist staff, and/or biological monitoring. With implementation of these measures, the risk of an impact occurring is low and lethal and non-lethal impacts on nesting birds would be minor.

Visitor use of the 40 Acres trail would be expected to have similar impacts on nesting birds as other recreation activities, including motorized vehicle recreation and pedestrian recreation, as appropriate as described above in ITP Covered Existing Activities.

Conclusion: Results in a minor level of lethal impacts. Results in a moderate level of non-lethal impacts. Results in a moderate level of indirect lethal impacts.

Dust Control Activities – New PMRP Foredune Vegetation (CA-44). Dust control activities would not impact aquatic or riparian nesting birds, since these activities would not occur in aquatic or riparian habitat. Dust control activities can result in destruction of a bird nest if they are present within the work area. Dust control activities can also disturb nearby nesting birds and drive adult birds from the nest and, ultimately, lead to neglect or abandonment of eggs or chicks. However, dust control activities would be conducted outside the avian nesting season (September 16 to February 28/29) to the extent feasible. If 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 risk of an impact occurring is low and lethal and non-lethal impacts on nesting birds would be minor.

Planting vegetation associated with dust control activities within the HCP area can reduce available suitable nesting habitat for some ground nesting birds, including the special-status 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, installing monitoring equipment could provide nesting habitat for some birds, including raptors. As a result, the habitat impacts are minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts. Results in a minor level of habitat impacts.

Oso Flaco Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk spans both aquatic, dune scrub, and beach habitat. 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. 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 neglect or abandonment of eggs or chicks. However, as part of CDPR's standard practices, 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 Environmental Scientist, nesting bird surveys would be conducted prior to replacing the boardwalk. If a nest is observed, activities would be delayed until appropriate AMMs are in place. AMMs would include a no-disturbance buffer, as determined by CDPR Environmental Scientist staff, and/or biological monitoring. With implementation of these measures, the risk of an impact occurring is low and the lethal and non-lethal impacts on nesting birds would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

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 project 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 CDPR's standard practices, 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 Environmental Scientist, nesting bird surveys would be conducted prior to special project activities. If a nest is observed, activities would be delayed until appropriate AMMs are in place. AMMs would include a no-disturbance buffer, as determined by CDPR Environmental Scientist staff, and/or biological monitoring. With implementation of these measures, the risk of an impact occurring is low and the lethal and non-lethal impacts on nesting birds would be minor.

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 negligible.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50). The East Boneyard Exclosure and 6 Exclosure do not contain suitable nesting habitat for most potential nesting birds in the HCP area, including shrub- and tree-nesting species, such as raptors. As a result, no impacts to these birds or their nests would occur from reducing the East Boneyard Exclosure and 6 Exclosure.

The special-status species California horned lark is a ground nester and has infrequently been observed nesting with the seasonal exclosure each year. Only a few (if any) California horned lark are likely to nest within the East Boneyard Exclosure or 6 Exclosure since this species is sensitive to disturbance and is thought to be an uncommon nester in the region. If present, removal of the Boneyard Exclosure and/or the 6 Exclosure could expose nesting California horned lark to recreation and other activities. Individuals not protected by the exclosure fence could be killed, injured, or disturbed if activities occur close by. California horned lark are unlikely to nest within the Southern Exclosure area and any such nests would be observed while conducting surveys for SNPL and CLTE. In addition, if a nest were observed, AMMs (e.g., no disturbance buffer) would be implemented to comply with the California Fish and Game Code. As a result, the risk of an impact occurring is low and the lethal and non-lethal impact would be minor.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

CDPR Use of UAS (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) during the breeding season in areas where nesting birds maybe located. Direct lethal (injury or mortality) of nesting birds would not be expected during drone use. 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 flights are approved by the Environmental Resources Project Manager. However, some disturbance could still occur and the risk of this impact occurring is anticipated to be moderate to high, depending on the location and duration of UAS activities, and non-lethal impacts from UAS are expected to be moderate. 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.

Conclusion: Results in a moderate level of non-lethal impacts. Overall beneficial impacts.

Bats

Existing park operations could impact roosting and/or foraging bats. Most impacts are expected to occur near wooded or aquatic areas and are not expected to result in injury or mortality of bats.

Effects of ITP Covered Existing Activities on Bats

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to bats from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to bats, including special-status bats, from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Bats can be disturbed by activities in the HCP area; however, disturbance to roosting or foraging bats is uncommon in the HCP area since most activities do not occur at night when bats are most active and are out in the open, and any disturbances are typically temporary and short in duration. As a result, impact to foraging or wintering bats within the HCP area is negligible and are dismissed from further discussion. ITP covered existing activities with no or negligible impact to foraging or wintering bats include CA-3 through CA-9, CA-12 through CA-15, CA-17 through CA-19, CA-21 through CA-22, CA-26, CA-28 through CA-29, CA-32 through CA-34, CA-36 through CA-37, CA-39 through CA-40, CA-44), CA-46, and CA-51.

Existing park operations including recreation, natural resources management, park maintenance, visitor services, and other existing activities can impact roosting and/or foraging bats. Most impacts, if any, occur near wooded or aquatic areas and do not result in injury or mortality of bats. As a result, only activities that occur within in these areas are discussed further.

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1) and Camping (CA-2). Motorized recreation and camping are allowed within the HCP area 24 hours per day. Therefore, these activities can impact foraging and/or roosting bats, including by striking foraging bats. Motorized recreation and camping are not known to have injured or killed bats since bats are typically flying over water to forage and/or roosting in trees and are not typically susceptible to vehicle strike. Therefore, this lethal impact is negligible. This trend is expected to continue in the future.

Bats are particularly susceptible to perturbations from human activities which have contributed to the decline in several species. Disturbance from recreation during hibernation and rearing can result in roost abandonment. Noise associated with overnight camping and nighttime motorized activity can lead to roost abandonment and exposure. Introducing sources of light and glare from camping and/or motorized recreation at night could disrupt bats and deter them from normal foraging and/or mating behavior or disrupt normal circadian/hibernation cycles. Lights in unpopulated areas could also affect the ability of bats and many insects (i.e., bat prey) to navigate at night indirectly leading to increased stress and/or mortality. The specific disturbance related impacts to bats in the HCP area from motorized recreation and camping are not known; however, the non-lethal impacts to bats is considered minor to moderate depending on the location and timing. This trend is expected to continue in the future.

Conclusion: Results in a minor to moderate level of non-lethal impacts depending on the location and timing of the impacts.

Holidays (CA-10) and Special events (CA-11). Potential impacts to bats from visitor activities may be exacerbated during periods of high visitor use, such as holidays (CA-10) or special events (CA-11). As a result, non-lethal impacts from holidays and special events on bats is moderate. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of non-lethal impacts.

Park Maintenance

Routine Riparian Maintenance (CA-26). Routine riparian maintenance activities last for several hours or several days. Maintenance activities associated with the removal of trees can kill or injure bats. However, as part of their standard practices, CDPR conducts pre-construction surveys for bat roosts, as necessary, prior to the removal of any trees to avoid harm and injury to bats. If a roost is observed during the pre-construction survey or during riparian maintenance activities, activities are delayed until the appropriate AMMs are in place. AMMs can include postponing the removal of trees, establishing buffers around roost sites, or exclusion of bats from the roost site. As a result, the risk of an impact occurring is low and lethal impacts to roosting bats are minor. This trend is expected to continue in the future.

Riparian maintenance activities can also temporarily displace foraging bats, altering their normal behavior patterns and/or flush foraging and/or roosting bats from optimal habitat to less suitable habitat. These impacts are typically temporary and short in duration and last

only the time of the riparian maintenance activity. As a result, non-lethal impacts from routine riparian maintenance on bats is minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of lethal and non-lethal impacts.

Effects of ITP Covered New Activities on Bats

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to bats, including special-status bats, from new covered activities, where risk is defined as the likelihood and magnitude of effect, is summarized in EA Table D-2. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activity and Other Non-Covered Species Management Activities (CA-12b), SNPL Adult Banding (CA-12b), General Facilities Maintenance (CA-21) – Mechanical Trash Removal, Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41), Riding in 40 Acres (CA-42), Dust Control Activities – New PMRP Foredune Vegetation (CA-44), Oso Flaco Boardwalk Replacement (CA-48), Special Project (CA-49), Reduction of Boneyard Exclosure and 6 Exclosure (CA-50), CDPR UAS Use (CA-52) would either not occur in habitat where bats would be expected to forage (e.g., aquatic habitat) or roost (e.g., riparian habitat or tree stands) and/or would occur during the day when bats are not active. As a result, these activities would have no or negligible impacts on bats and are not discussed further.

American Badger

American badgers are known to occur in the HCP area; however, due to their secretive behavior, very little is known about the American badger in the HCP area. To date, American badger is known to occur in the vegetation islands and Phillips 66 leasehold within the HCP area. In addition, American badger tracks have been observed one time within the open riding area. Overall, American badger is most likely to use areas that are further away from urban areas and connected to other open space habitat.

Although little is known about American badger in the HCP area, this section discusses potential impacts that could occur if an American badger is present. Because American badger has only infrequently been observed in the HCP area, these impacts are thought to be unlikely, but possible.

Effects of ITP Covered Existing Activities on American Badger

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to American badger from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to American badger from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities that have no or negligible risk of impacting American badger are not further discussed in this section. Existing covered activities with no or negligible impacts to American badger include bicycling and golfing (CA-4), fishing (CA-5), dog walking (CA-6), equestrian recreation (CA-7), boating/surfing (CA-8), aerial/wind driven activities (CA-9), special events (CA-11), SNPL and CLTE management (CA-12), tidewater goby and salmonid surveys (CA-13), CRLF surveys and management (CA-14), water quality and monitoring (CA-19), general facilities maintenance (CA-21), trash control (CA-22), routine riparian maintenance (CA-26), cable fence maintenance (CA-28), heavy equipment response (CA-29), ranger, lifeguard, and park patrols (CA-32), access by non-CDPR vehicles (CA-34), beach concessions (CA-36), Pismo Beach Golf Course operations (CA-37), natural history/interpretation (CA-39), vehicles crossing creeks (CA-40), and CDPR agricultural land management (CA-46).

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), and Holidays (CA-10). Recreation activities are not permitted in the Phillips 66 Leasehold; therefore, American badgers in this area are not impacted by these park visitor activities. In addition, motorized recreation and camping are generally limited to the open sand beaches and dunes in the HCP area. American badger tracks have been observed in areas open to vehicles one time. Although unlikely, if a badger does use an area open to vehicles to move from one location to another or to forage, it could be injured or killed by a vehicle or disturbed by the noise from vehicle or camping activity. Since badgers do not typically occur in open beach or dune areas, these lethal and non-lethal impacts are negligible. This trend is expected to continue in the future.

American badgers are sensitive to repeated human activities, particularly actions that alter soil integrity. Repeated human visitation associated with recreation activities in the HCP area in areas where American badger can affect the routine behavior of American badgers and ultimately result in den abandonment. In addition, pedestrians in the project area could destroy American badger dens if they are located within the dune vegetation or vegetation islands where pedestrians can walk. However, American badgers are uncommon in the HCP area and most likely avoid areas where recreation is allowed. As a result, this non-lethal impact is considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts.

Natural Resources Management

Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), and HMS (CA-18). Lethal impacts to American badger from these activities has never been documented and are unlikely to occur. Listed plant management, habitat monitoring, and invasive plant and animal control activities in the Phillips 66 Leasehold or vegetation islands could result in disturbance to American badger and ultimately result in den abandonment if they are present within or near the work area. As part of CDPR's standard practice, pre-construction surveys are conducted, as determined to be necessary by CDPR Environmental Scientist, prior to conducting listed plant management, habitat monitoring, or

invasive plant management 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 are delayed until the individual has moved from the area or until appropriate AMMs are in place (e.g., a no disturbance buffer). With implementation of this measure, the risk of an impact occurring is low and the non-lethal impact on American badger is considered minor. Overall, the HMS has beneficial impacts on this species by providing useful information on the species distribution and habitat in the HCP area. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts. Overall beneficial impact from the HMS.

Visitor Services

Emergency Response (CA-33). CDPR emergency responders sometimes must travel quickly throughout the HCP area; however, emergency responders very rarely travel through vegetated areas. Therefore, American badger have not been documented as being struck by emergency vehicles and dens have not been observed being crushed by emergency vehicles. As a result, this lethal impact is considered negligible. This trend is expected to continue in the future.

If emergency occurs adjacent to a vegetation island or other areas where American badger could occur, it can be highly disruptive to American badger. However, such events are rare and do not occur in most years. In addition, emergency response typically occurs quickly. Due to event infrequency and short-term duration of disturbance, the non-lethal impact of these covered activities is considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of non-lethal impacts.

Other Activities

Dust Control Activities (CA-44). Dust control already occurs in the HCP area in accordance with the Dust Control Program EIR. Dust control activities can crush an American badger den or result in disturbance to American badger if they are present within or near the work area and ultimately result in burrow abandonment and relocation. However, dust control activities require pre-work surveys for American badger and American badger dens no more than 7 days prior to installation of project features. If dens are found, a 100-foot buffer zone is required. As a result, the risk of an impact occurring is low and lethal and non-lethal impacts on American badger within the HCP area are negligible.

Installing dust control measures such as wind fencing within the HCP area may reduce available suitable foraging or denning habitat for American badger. However, dust control activities are thought to have an overall beneficial impact by increasing the amount of vegetation and, thus, suitable habitat for American badger in the HCP area.

Conclusion: Overall beneficial habitat impact.

Pesticide Use (CA-51). Pesticides used in the HCP area do not result in lethal impacts to American badger. Ground pesticide application does not occur in areas where American

badger typically occur (e.g., Phillips 66 Leasehold). Aerial spraying could disturb American badger. Specifically, aerial spraying has the potential to flush American badger from dens or other cover. However, helicopter application is conducted infrequently and can be conducted quickly (e.g., 90 acres in about 2.5 hours). As a result, non-lethal impacts from helicopter are short term in duration and are considered minor. Overall, pesticide use benefits American badger by improving habitat for American badger in the HCP area.

Conclusion: Results in a minor level of non-lethal impacts. Overall beneficial impact.

Effects of ITP Covered New Activities on American Badger

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to American badger from new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside of American badger habitat or areas where American badger or badger sign (e.g., dens) have not been observed have no or negligible risk of impacting American badger. New covered activities with no impact to American badger include SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL adult banding (CA-12b), mechanical trash removal (CA-21), Pismo Creek Estuary seasonal bridge (CA-41), riding in 40 Acres (CA-42), Oso Flaco boardwalk replacement (CA-48), and reduction of Boneyard Exclosure and 6 Exclosure (CA-50). These covered activities would have no or negligible effect on American badger and are therefore dismissed from further discussion.

Minor to Moderate Impacts

Other Activities

Dust Control Activities – New PMRP Foredune Vegetation (CA-44). Although unlikely because American badgers are uncommon in the HCP area, 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 their standard practices, CDPR would conduct pre-construction surveys for special-status species (e.g., American badger), as determined to be necessary by a CDPR Environmental Scientist, to reduce impacts to American badgers. As a result, the risk of an impact occurring is low and non-lethal impacts would be minor.

Planting vegetation associated with dust control activities within the HCP area most likely has a beneficial impact on American badger by increasing the amount of suitable vegetated dune habitat in the HCP area.

Conclusion: Results in a minor level of non-lethal impacts. Overall beneficial impact.

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 where American badgers would not occur. However, special project activities could result in removal of dens or disturbance to American badger and ultimately result in burrow abandonment and relocation if special projects occur near vegetated areas and American badger are present within or in the vicinity of the work area. As part of CDPR's standard practices, pre-construction surveys would be conducted prior to conducting special projects, as determined to be necessary by a CDPR Environmental Scientist, in order to avoid impacts 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 AMMs are in place (e.g., a no-disturbance buffer). With implementation of this measure, the risk of an impact occurring is low and the non-lethal impact on American badger would be minor.

Conclusion: Results in a minor level of non-lethal impacts.

CDPR Use of UAS (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 flights are approved by a Senior Environmental Scientist. As a result, the risk of an impact occurring is low and this non-lethal impact on American badger would be minor.

Conclusion: Results in a minor level of non-lethal impacts.

Wildlife Movement and Nursery Sites

Effects of ITP Covered Existing Activities on Wildlife Movement and Nursery Sites

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to wildlife movement and nursery sites from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Existing covered activities such as creek crossings (CA-40), agricultural land management (CA-46), bioreactor maintenance (CA-47), and pesticide use (CA-51) do not involve activities or structures that impede wildlife movement or affect nursery sites.

Minor to Moderate Impacts

Park Visitor Activities

Park visitor activities (CA-1 to CA-11). Park visitor activities can occur within areas used by SNPL and CLTE for nesting and chick rearing. However, as described under Special-Status

Animal Species, AMMs would be implemented for park visitor activities to ensure that SNPL and CLTE nesting and chick rearing are not substantially impacted. Park visitor activities are recreational uses that generally do not involve activities that restrict wildlife movement. Motorized recreation deters wildlife from moving through areas open to motorized use, including small and large mammals, birds, reptiles, and amphibians. Some park visitor activities can also impede wildlife movement during Special Events (CA-11). However, these impacts are temporary, are not substantial, and do not cause the population decline of any wildlife species in the HCP area. The existing impact of park visitor activities on wildlife movement is minor.

Natural Resources Management

Natural resources management activities (CA-12 to CA-15, CA-17, CA-18, and CA-19). The natural resources program helps mitigate for potential impacts to breeding and rearing young and to wildlife movement from visitor activities by monitoring and protecting HCP covered animal species (CA-12 through CA-14), plant monitoring and vegetation planting (CA-15), controlling invasive species (CA-17), monitoring wildlife populations in the HCP area (CA-18), and monitoring water quality (CA-19). The existing impact of natural resources management activities on wildlife movement and nursery sites is beneficial.

Park Maintenance

Park maintenance activities (CA-21, CA-22, CA-26, CA-28, and CA-29). Park maintenance activities can occur in areas where wildlife species nest and rear young, including CRLF, SNPL, and CLTE. However, with implementation of the AMMs, and due to the temporary nature of most of these activities, any impacts to eggs or young are minor and would not impede egg laying, nesting, or rearing of young. In addition, these activities do not create barriers to wildlife movement within the HCP area, especially since park maintenance activities are temporary and relatively short in duration and only deter wildlife from moving through the area during the period of disturbance. As a result, park maintenance activities have negligible to minor impact on wildlife movement.

Visitor Services

Visitor services (CA-32 to CA-36, CA-37, and CA-39). Although visitor service activities can occur within SNPL and/or CLTE nesting habitat, they do not occur in areas where SNPL and/or CLTE typically nest or raise chicks. As a result, visitor service activities do not impede SNPL and CLTE nesting or chick rearing. In addition, these activities do not impede wildlife movement since they do not create permanent barriers to wildlife movement within the HCP area. In addition, most visitor service activities are temporary and relatively short in duration in any area and only deter wildlife from moving through the area during the period of disturbance. As a result, visitor services have negligible to minor impact on wildlife movement.

Other Activities

Dust Control activities (CA-44). Dust control activities typically occur outside of areas that are suitable for SNPL and CLTE breeding and chick rearing. Some activities have occurred within areas suitable for SNPL and CLTE breeding and chick rearing; however, in the past these areas have only infrequently been used for nesting or chick rearing. In addition, as described under Special-Status Animal Species, AMMs are implemented for dust control

activities to ensure that SNPL and CLTE nesting and chick rearing are not substantially impacted. As a result, dust control activities do not impede SNPL and CLTE nesting or chick rearing. In addition, dust control activities do not substantially interfere with the movement of native fish or wildlife species or established wildlife corridors because activities are currently installed on open sand areas and do not represent a substantial barrier to wildlife migration or movement.

Conclusion: Results in a minor level of impacts.

Effects of ITP Covered New Activities on Wildlife Movement and Nursery Sites

The following covered activities are new visitor use or park operation activities occurring within the HCP area. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

Minor to Moderate Impacts

Natural Resource Management

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. As described above, this activity would occur within an area used by SNPL and CLTE for nesting and raising young; however, all impacts would be minor since they would be temporary and relatively short-term in duration and they would not impede the use of the area for nesting and raising young. This activity could also deter wildlife from moving through the area during the period of disturbance; however, it would not create an impediment to wildlife movement. As a result, the impact is minor.

Conclusion: Results in a minor level of impacts.

SNPL Adult Banding (CA-12b). SNPL adult banding would occur on foot in open sand areas. As described above, this activity would occur within an area used by SNPL and CLTE for nesting and raising young; however, all impacts would be minor since they would be temporary and relatively short-term in duration and they would not impede the use of the area for nesting and raising young. This activity could also deter wildlife from moving through the area during the period of disturbance; however, it would not create an impediment to wildlife movement. As a result, the impact is minor.

Conclusion: Results in a minor level of impacts.

Park Maintenance

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. Although some SNPL and CLTE could nest here, this area is not typically used for SNPL and CLTE nesting or chick rearing. In addition, mechanical trash removal would be temporary and relatively short-term in duration and would not impede the use of the area for nesting and raising young. Tractor use could deter wildlife

from moving through the area during the period of disturbance; however, tractor use would not create an impediment to wildlife movement. As a result, the impact is minor.

Conclusion: Results in a minor level of impacts.

Other Activities

Pismo Creek Estuary Seasonal (Floating) Bridge (CA-41). The bridge would not impede the use of Pismo Creek Estuary as a wildlife nursery site. 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. As a result, wildlife movement impacts associated with the floating bridge would be minor.

Conclusion: Results in a minor level of impacts.

Riding in 40 Acres (CA-42). Trail development would enable riding in this area of the HCP that is presently closed. The trail is not located within a known wildlife nursery site. Therefore, impacts to a wildlife nursery is not expected. Recreational use of the trail would create temporary human presence. Wildlife could be deterred from moving through the area at times when recreation is high or during trail development. However, no barriers or impediment to wildlife movement would occur. As a result, the impacts would be minor.

Conclusion: Results in a minor level of impacts.

Dust Control Activities – New PMRP (CA-44). Dust control activities would occur within some areas used by SNPL and CLTE for nesting and chick rearing. However, as described under Special-Status Animal Species, AMMs would be implemented to ensure that SNPL and CLTE nesting and chick rearing are not substantially impacted. As a result, any impacts to eggs or young are minor and would not impede the use of the HCP area for nesting and raising young. 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 and temporary monitoring equipment would not represent a substantial barrier to wildlife migration or movement. As a result, impacts on wildlife movement and corridors would be minor.

Conclusion: Results in a minor level of impacts.

Oso Flaco Lake Boardwalk Replacement (CA-48). Oso Flaco Lake could support CRLF and other native aquatic wildlife eggs or young; however, with implementation of the AMMs, and due to the temporary nature of the Oso Flaco boardwalk replacement, any impacts to eggs or young would be minor and would not impact the use of the area as a nursery site. Wildlife could be deterred from moving through the area during boardwalk replacement. Boardwalk replacement would be an in-kind replacement of the current structure. The new structure

would be located in the same alignment at its current location; therefore, no new wildlife barriers would be constructed. As a result, the impact is minor.

Conclusion: Results in a minor level of impacts.

Special Projects (CA-49). Although special projects could occur within SNPL and/or CLTE nesting habitat, they would not occur in areas where SNPL and/or CLTE typically nest or raise chicks. As a result, special projects would not impede SNPL and CLTE nesting or chick rearing. Special projects could result in temporary disruption of wildlife movement during project construction by deterring them from migrating through the area. Special projects are anticipated to be small and would not create a permanent barrier to migration. As a result, impacts would be minor.

Conclusion: Results in a minor level of impacts.

Reduction of the Boneyard Exclosure and 6 Exclosure (CA-50). The Boneyard and 6 Exclosure occur in areas where SNPL and CLTE are known to nest and raise young. However, as described under Special-Status Animal Species, AMMs would be implemented for this activity to ensure that SNPL and CLTE nesting and chick rearing are not substantially impacted. 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. 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 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 anyway. As a result, exposure of an additional 109 acres of additional habitat to recreation would minor.

Conclusion: Results in a minor level of impacts.

CDPR UAS Use for Park Activities (CA-52). UAS would not impede a native wildlife nursery site. 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. As a result, all impacts would be temporary and are considered minor.

Conclusion: Results in a minor level of impacts.

Wintering/Migratory Birds

Existing park operations, including recreation, natural resources management, park maintenance, visitor services, and other existing activities are known to impact wintering and/or migratory birds. Impacts can occur anywhere in the HCP area depending on the type of bird. For example, activities that take place on the wet sand portion of the beach, can impact shorebirds and other birds foraging along the wrack line or intertidal areas. Activities at Oso Flaco Lake can impact foraging or roosting waterbirds and songbirds. The HCP area contains numerous birding hotspots, including areas used by birds during spring and fall migrations. The primary birding hotspots in the HCP area include Oso Flaco Lake, Oceano Lagoon, and Oceano Campground. The risk of impact on migratory birds is considered higher at the birding hotspots.

Effects of ITP Covered Existing Activities on Wintering/Migratory Birds

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to wintering/migratory birds from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Impacts to wintering/migratory birds, including special-status species with some exceptions such as the western burrowing owl, do not require permits or authorizations during the non-breeding season timeframe to ensure that impacts are minor. Many covered activities have been observed temporarily displacing foraging or wintering birds, altering their normal behavior patterns. Covered activities have also been observed flushing wintering or foraging birds from optimal habitat to less suitable habitat. However, most disturbances are temporary and short in duration and/or birds fly to other areas to forage/roost and avoid disturbance. As a result, impacts of most ITP covered existing activities on wintering/migratory birds are considered negligible since they do not result in mortality or injury. Covered activities that are considered to have no or negligible impacts include CA-2 through CA-9; CA-12 through CA-15; CA-17 through CA-19; CA-21; CA-22; CA-26, CA-28; CA-29; CA-32 through CA-34; CA-36; CA-37; CA-39; CA-40; CA-44; CA-46; CA-51. These activities are not discussed further. Only specific existing covered activities thought to have lethal impacts to wintering/migratory birds are discussed further below.

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1). Most birds fly out of harm's way when vehicles approach. However, foraging or roosting birds within areas where motorized vehicles are permitted have been struck by vehicles and injured or killed, including individuals and flocks along the shoreline, and the risk of this occurring is high. As a result, the lethal impacts from motorized recreation on wintering or migratory birds within the HCP area are moderate. This trend is expected to continue in the future.

Conclusion: Results in a moderate level of lethal impacts.

Holidays (CA-10) and Special events (CA-11). Potential impacts to wintering and migratory birds from visitor activities may be exacerbated during periods of high visitor use, such as holidays (CA-10) or special events (CA-11) the same as described for SNPL. As a result, risk of lethal impacts from holidays and special events on wintering and migratory birds is moderate.

Conclusion: Results in a moderate level of lethal impacts.

Effects of ITP Covered New Activities on Wintering/Migratory Birds

The following covered activities are new visitor use or park operation activities occurring within the HCP area. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

SNPL Chick and Egg Capture for Captive Rearing if Observed to be Threatened by Recreation Activity and Other Non-Covered Species Management Activities (CA-12b) and SNPL Adult Banding (CA-12b) would be conducted during the avian breeding season. Therefore, these ITP covered new activities would have no or negligible effects on wintering/migratory birds and are therefore dismissed from further discussion.

Impacts to wintering/migratory birds, including special-status species with some exceptions such as the western burrowing owl, do not require permits or authorizations during the non-breeding season timeframe to ensure that impacts are minor. Many new covered activities could have temporarily displacing foraging or wintering birds, altering their normal behavior patterns. Covered activities have also been observed flushing wintering or foraging birds from optimal habitat to less suitable habitat. However, most disturbances are temporary and short in duration and/or birds fly to other areas to forage/roost and avoid disturbance. As a result, impacts of most ITP covered new activities on wintering/migratory birds would be negligible since they do not result in mortality or injury. New covered activities with no or negligible impacts include Pismo Creek Estuary Seasonal Floating Bridge (CA-41), Riding in 40 Acres (CA-42), and Oso Flaco Boardwalk Replacement (CA-48), Special Projects (CA-49), and CDPR Use of UAS (CA-52). These activities are not discussed further. Only specific existing covered activities thought to have lethal (injury or morality) impacts to wintering/migratory birds are discussed further below.

Minor to Moderate Impacts

Park Maintenance

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 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 lethal impacts from mechanical trash removal activities on wintering/migratory birds would be minor.

Mechanical trash removal activities could disturb wintering/migratory birds by temporarily flushing them and/or precluding 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 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, non-lethal impacts on foraging or roosting wintering/migratory birds from mechanical trash removal are considered negligible.

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 minor habitat impacts on wintering/migratory bird foraging and/or roosting habitat.

Conclusion: Results in a minor level of lethal impacts. Results in minor habitat impacts.

Other Activities

Dust Control Activities – New PMRP Foredune Vegetation (CA-44). Dust control activities could temporarily displace foraging or wintering birds, altering their normal behavior patterns. Because these activities would be relatively short in duration and additional suitable habitat away from disturbance would be present in the HCP area, this non-lethal impact is considered minor.

Dust control activities could also 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 (if at all). In addition, most dust control activities would be localized and short in duration. As a result, lethal impacts would be minor.

Planting approximately 52 acres of foredune vegetation could constrict the available area for wintering/migratory bird roosting/foraging. However, vehicles speed limits would be enforced in the HCP area and most flocks and/or individual birds would be expected to fly out of harm's way. As a result, this lethal impact would be minor.

Conclusion: Results in a minor level of lethal impacts.

Reduction of Boneyard Exclosure and 6 Exclosure (CA-50). Reducing the East Boneyard Exclosure and 6 Exclosure would not impact wintering birds since the exclosure would not be present during the winter. Some birds could migrate through the HCP area when the exclosure is still present and could forage and/or roost in the HCP area. Reducing the East

Boneyard Exclosure and 6 Exclosure would likely have limited impacts on migrating birds, since most migrating birds would not be expected to use the exclosures for foraging and/or roosting. If migrating birds did use the East Boneyard or 6 Exclosure for foraging and/or roosting, reduction of the exclosure could expose migrating birds to motorized and/or non-motorized recreation, which could temporarily displace foraging birds, altering their normal behavior patterns. This non-lethal impact is considered negligible.

Although most birds would be expected to fly out of harm's way, some foraging or roosting birds (especially those found in flocks) within areas that were previously protected by the East Boneyard Exclosure and/or 6 Exclosure where motorized vehicles would be permitted could be struck by vehicles and injured or killed. However, as part of their natural resource management program, CDPR implements measures, including, but not limited, to enforcing speed limits along the shoreline, providing educational materials, and conducting ranger patrols to enforce natural resource and other regulations. As a result, the risk of an impact occurring is low and the lethal impacts from reducing the East Boneyard Exclosure and 6 Exclosure on migrating birds within the HCP area would be minor.

Conclusion: Results in a minor level of lethal impacts.

Special-Status Plant Species

Of the 25 special-status plant species potentially occurring in the HCP area, six of these species are covered species in the HCP. Impacts to HCP covered special-status plant species (marsh sandwort, surf thistle, beach spectaclepod, La Graciosa thistle, Nipomo Mesa lupine, and Gambel's watercress) from covered activities are described in the HCP section 4.7.

Although 19 special-status plant species are not covered by the HCP, some of these species are expected to directly benefit from the HCP's conservation program through the implementation of AMMs for covered activities if special-status plants occur in areas where covered species are known to occur. Specifically, Blochman's groundsel (*Senecio blochmaniae*), Bochman's leaf daisy (*Erigeron blochmaniae*), California spineflower (*Mucronea californica*), coastal goosefoot (*Chenopodium littoreum*), Nuttall's milkvetch (*Astragualus nuttallii* var. *nuttalli*), dune larkspur (*Delphinim parryi* ssp. *blochmaniae*), crisp monardella (*Monardella undualata* ssp. *undulata*), dunedelion (*Malacothrix incana*), fuzzy prickly phlox (*Linanthus californicus*), red sand verbena (*Abronia maritima*), suffrutescent wallflower (*Erysimum suffrutescens*), southern spiny rush (*Juncus acutus* ssp. *leopoldii*), Monterey coast paintbrush (*Castilleja latifolia*), sand almond (*Prunus fasciculata* var. *punctata*), San Luis Obispo monardella (*Monardella undulata* ssp. *undulata*), and Douglas' spineflower (*Chorizanthe douglasii*) occur in the same coastal dune and foredune habitat as surf thistle (*Cirsium rhothophilum*), Nipomo Mesa lupine (*Lupinus nipomensis*), and/or beach spectaclepod (*Dithyrea maritima*). AMMs that would protect special-status plant species include, but not are limited to, installation of protective fencing (Listed Plant AMM-2), closure of informal trails (Listed Plant AMM-3), habitat restoration (Listed Plant AMM-4), water quality monitoring (Listed Plant AMM-10), and invasive plant control (Listed Plant AMMs 15 through 22). A description of the Listed Plant AMMs can be found in HCP section 5.3.

Discussion of special-status plant species below is organized by covered activities under impact intensity categories, which take into consideration both the risk of occurrence and

the magnitude of the impact. Therefore, even though risk of impact may be high, it may not be classified as a high or moderate impact if the magnitude is considered infrequent, short in duration, and/or will not change the condition of the resource. The impact intensities used in this analysis are defined in Table D-1.

Effects of ITP Covered Existing Activities on Special-Status Plants

The following activities proposed for take coverage under the ITP are existing ongoing visitor use or park operation activities occurring within the HCP area. No major impacts from existing covered activities on special-status plants have been identified. Existing covered activities are ongoing visitor use or park operation activities occurring within the HCP area. No changes to these activities are proposed by the HCP: therefore, the Proposed Action would have no new impact generated by these activities. The risk of impact to special-status plants from existing covered activities and an assessment of the impact magnitude are discussed below. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside of special-status plant species habitats do not impact these species. In addition, some covered activities have little to no impact on special-status plant species, especially with the implementation of AMMs. Covered activities with no or negligible impacts on special-status plant species include bicycling and golfing (CA-4), surfing (CA-8), aerial/wind driven activities (CA-9), SNPL and CLTE management (CA-12a and 12b), tidewater goby and salmonid surveys (CA-13), CRLF surveys and management (CA-14), water quality monitoring projects (CA-19), heavy equipment response (CA-29), ranger, lifeguard, and park aide patrols (CA-32), Pismo Beach Golf Course operations (CA-37), natural history and interpretation programs (CA-39), motorized vehicle crossing creeks (CA-40), dust control activities (CA-44), and CDPR management of agricultural lands (CA-46). These activities have no or negligible impacts on listed plant species and are, therefore, dismissed from further discussion.

Minor to Moderate Impacts

Park Visitor Activities

Motorized vehicle recreation (CA-1) and Camping (CA-2). Motorized recreation already occurs in the HCP area year-round on a daily basis within areas open to motorized recreation. However, a portion of the open riding is closed to motorized recreation from March 1 through September 30 during the SNPL and CLTE breeding season. Impacts on special-status plants due to motorized recreation in the past have been difficult to assess and have not been documented in the open riding area. In general, areas open to motorized recreation (and areas where most non-designated camping occurs) almost entirely consist of bare sand and are not expected to contain special-status plant species. Although unlikely, some special-status plant species could occur within sand dune areas and/or areas with sparse vegetation open to motorized recreation including, but not limited to, Blochman's groundsel, Bochman's leaf daisy, California spineflower, coastal goosefoot, crisp monardella, dunedelion, fuzzy prickly phlox, red sand verbena, and suffrutescent wallflower. If special-status plant species were to occur in the areas where motorized recreation is allowed, these activities could crush or destroy special-status plant species individuals. However, the direct impact on special-status plant individuals is considered

negligible due to lack of occurrences and lack of suitable habitat in those areas. This trend is expected to remain the same in the future.

Indirect impacts to special-status plants due to motorized recreation in the past have been difficult to assess and have not been documented in the open riding area. Numerous special-status plant species including Blochman's groundsel, Bochman's leaf daisy, southern spiny rush, Monterey coast paintbrush, Douglas' spineflower, crisp monardella, dunedelion, red sand verbena, and suffrutescent wallflower have been observed in the vegetation islands throughout the open riding area. Motor vehicles are known to inadvertently spread invasive plants (e.g., on tires) by moving seeds or plant segments if they move from one place with invasive species to a less impacted area. Therefore, motorized recreation adjacent to vegetation islands can introduce invasive plants that compete with special-status plants in the area. However, motor vehicles are not permitted in the vegetation islands and this risk of impact is considered low. As a result, motorized recreation indirect impacts on special-status plant individuals adjacent to motorized activities is minor. This trend is expected to continue in the future.

Motorized vehicles recreation and camping have a high potential to degrade or modify potentially suitable habitat for special-status plant species that might otherwise occur in sparsely vegetated or coastal dune habitat, including listed plant species such as surf thistle and beach spectaclepod, and prevents these species from establishing within the foredunes. As a result, motorized recreation has likely kept some special-status plants from growing in the open riding area and; therefore, has had a moderate impact on special-status plant species habitat within areas open to recreation. This trend is expected to continue in the future.

Conclusion: Results in a minor level of indirect impacts. Results in moderate level of habitat impacts.

<u>Pedestrian activities (CA-3), Dog walking (CA-6), Holidays (CA-10), and Special events (CA-11)</u>. Pedestrians are allowed within the HCP area 24 hours a day and the HCP area has had up to 670,000 day-use visitors in a year. Impacts to special-status plants due to pedestrian recreation in the past have been difficult to assess and have not been documented in the HCP area. Pedestrians are allowed within the vegetation islands and the Oso Flaco area where motorized vehicles are not allowed. In general, pedestrians walking through vegetation islands and within the Oso Flaco area could potentially trample special-status plant individuals and disturb their habitat resulting in a moderate risk for impact occurrence. Pedestrians can also inadvertently facilitate the spread of invasive species (e.g., on shoes or clothing) by moving seeds or plant segments if they move from one place with invasive plants to a less impacted area. Invasive species could outcompete special-status plant species. Potential impacts to special-status plants from visitor activities may be exacerbated during periods of high visitor use, such as holidays (e.g., July 4) or special events. To reduce impacts to special-status plants, fencing is installed around vegetation islands, which often deters pedestrians from entering and trampling special-status plant species in the vegetation islands. In addition, informal trails within known special-status plant habitat are also closed and restored to pre-trail conditions. Vegetation in many of these areas is also dense and pedestrians typically do not walk through vegetated areas. The seasonal exclosure is also in place during the typical blooming period for many special-status plants in the open riding area and/or Oso Flaco, including, but not limited to, surf

thistle and beach spectaclepod, and, thus, prohibits pedestrians from entering these areas and trampling special-status plant species. As a result, direct and indirect impacts to special-status plants from pedestrian activities are considered minor. This trend is expected to continue in the future.

Dogs (other than service dogs) are not allowed in the Dunes Preserve or Oso Flaco area. Therefore, special-status plant species in these areas are not impacted. There is a moderate risk of impacts to special-status plants in areas where dogs are allowed are similar to pedestrian activities (described above). However, since all dogs are required to be kept on a leash and with their owner at all times, direct and indirect impacts to special-status plants from dogs are considered minor. This trend is expected to remain the same in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

Fishing (CA-5) and Boating (CA-8). Fishing and boating are allowed within the HCP area year-round. Shore fishing and boating within the ocean do not impact special-status plant species since these activities occur on the wet sand subject to tidal flows and/or the ocean where no suitable habitat for special-status plant species is present. Fishing and non-motorized boating can occur within Oso Flaco Lake where special-status plant species, including marsh sandwort, La Graciosa thistle, and Gambel's watercress are known to or have potential to occur. Impacts on special-status plants from fishing and boating in Oso Flaco Lake are not known. In general, people fishing along the lake shoreline and/or launching boats from the lake shoreline could trample special-status plant individuals in these areas. In addition, people and boats could inadvertently facilitate the spread of invasive species (e.g., on shoes, clothing, or boats) by moving seeds or plant segments if they move from one place with invasive plants to a less impacted area. Invasive species could outcompete special-status plant species. Fish consumption advisories are posted at Oso Flaco Lake due to high levels of pesticides, potentially from runoff related to the adjacent agricultural activities. As a result, fishing in Oso Flaco Lake is not a regular activity. In addition, marsh sandwort, Gambel's watercress, and La Graciosa thistle are not known to occur in areas where fishing boats typically enter the water or along the shoreline areas where visitors might fish. As a result, the risk of impact occurrence is low and the direct and indirect impacts from fishing and boating on special-status plants are considered minor. This trend is expected to remain the same in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

Equestrian recreation (CA-7). Impacts to special-status plants due to equestrian recreation in the past have been difficult to assess and have not been documented in the HCP area. Equestrians activity typically occurs the northern HCP area including beaches and trails at Pismo State Beach and the Dunes Preserve. Equestrians traveling through the Dunes Preserve can disturb designated La Graciosa thistle critical habitat, as well as suitable habitat for other special-status plant species in this area. In addition, although unlikely, equestrian recreation in bare sand can impact special-status plant species that might grow in these areas (see CA-1 above). Equestrians travelling through areas where special-status plants are present could trample or crush individuals. Horses can also inadvertently facilitate the spread of invasive species (e.g., in hooves) by moving seeds or plant

segments if they move from one place with invasive plants to a less impacted area. However, to date, equestrians travelling through the HCP area typically stay on sandy trails where special-status plant species do not occur and rarely travel off-trail. As a result, the risk of impact occurrence is low and the direct and indirect impacts on special-status plant species from equestrians are considered minor. This trend is expected to remain the same in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

La Graciosa Thistle Critical Habitat

Motorized vehicle recreation (CA-1) and Camping (CA-2). There are approximately 94 acres of La Graciosa thistle critical habitat comprised of sandy dunes that are open to motorized recreation. In the critical habitat designation, the Service included polygons with protected areas of habitat patches including vegetation and open sand dune swales that contain physical and biological features (e.g., mesic areas with associated habitat types, associated plant communities, soils with a sandy component, features that allow dispersal and connectivity between populations) in the appropriate quantity and spatial arrangement necessary to provide the features essential to the conservation of La Graciosa thistle (USFWS 2009e). However, the areas within the boundaries of these polygons outside of habitat patches, but within the riding area, do not currently contain physical and biological features in the appropriate quantity and spatial arrangement necessary to provide features essential to the conservation of the species. These areas are designated as critical habitat because the vegetation islands are expected to migrate beyond their current boundaries in the foreseeable future. Motorized recreation may affect critical habitat by disturbing habitat-associated soils and 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 into the riding areas. Motorized recreation may also continue to indirectly affect the vegetation islands by increasing sand movement into the vegetated islands and other vegetated critical habitat. However, while some covered activities have been occurring for much longer, motorized recreation has been occurring in the HCP area for over 20 years within La Graciosa thistle habitat, and the Service anticipated the existing level of impact would continue. While motorized activities may impact La Graciosa thistle habitat, implementation of the conservation program has ensured the continued presence of La Graciosa thistle and habitat in the HCP area. Continued implementation of the conservation program, through the long-term commitment in the HCP, would preserve the functionality of critical habitat at Oceano Dunes. Therefore, the Service considers impacts associated with motorized recreation minor.

Pedestrian activities (CA-3). Pedestrian activity is generally allowed throughout La Graciosa thistle critical habitat, including vegetated areas (e.g., vegetation islands and the area around Oso Flaco Lake) that contain physical and biological features for La Graciosa thistle (e.g., mesic areas associated with Oso Flaco Lake; associated plant communities, such as central dune scrub, coastal scrub, wetlands, and riparian scrub). Pedestrian activity may continue to affect critical habitat by disturbing habitat-associated soils and crushing vegetation, seedlings, and seeds of plants within La Graciosa thistle critical habitat, including the vegetation islands. However, pedestrian activity in vegetated areas is uncommon and potential effects of these activities are anticipated to be very low, as

occasional walking through vegetation is not expected to adversely, nor permanently, affect vegetation. In addition, no pedestrian activities are allowed in the Phillips 66 leasehold area; therefore, critical habitat in this area will not be affected. As a result, the Service considers impacts associated with pedestrian activities minor.

Equestrian recreation (CA-7). Equestrian recreation is allowed within La Graciosa thistle critical habitat in the Dunes Preserve and the vegetated islands, but not within La Graciosa thistle critical habitat around Oso Flaco Lake. The Dunes Preserve and vegetated islands contain physical and biological features for La Graciosa thistle including, but not limited to, associated plant communities, such as central dune scrub and coastal scrub, and features that allow dispersal and connectivity between populations. Equestrian recreation may continue to affect critical habitat in the Dunes Preserve and vegetated islands by disturbing habitat-associated soils and crushing vegetation, seedlings, and seeds of plants. However, equestrians rarely enter the vegetation islands and generally stay on trails through other vegetated areas; therefore, equestrian recreation is not anticipated to significantly impact critical habitat. In addition, equestrian use in the open dunes is not anticipated to be frequent or intensively localized around existing vegetation islands and other vegetated habitat and is, therefore, not anticipated to prevent migration of vegetation. As a result, the Service considers impacts associated with equestrian recreation minor.

Conclusion: Results in minor impacts to critical habitat.

Natural Resource Management

Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), HMS (CA-18). CDPR already manages and restores vegetation in areas occupied or potentially occupied by listed plant species to benefit these and other native species, including other special-status plant species. These management measures include controlling invasive plant species, restoring foredune and dune scrub habitat that has been overwhelmed by invasive plant species, and monitoring listed plant species populations, including response of the listed plant species to habitat restoration. Impacts from pesticide use are described in Pesticide Use (CA-51).

Areas occupied by marsh sandwort, Gambel's watercress, and Nipomo Mesa lupine do not receive prescribed fire treatments and, therefore, are not affected by prescribed fire activities. Prescribed fire is currently used infrequently in the HCP area to manage invasive plant species in the foredunes and could present a threat to special-status plants, including, but not limited to, beach spectaclepod, surf thistle, La Graciosa thistle, Blochman's groundsel, Bochman's leaf daisy, southern spiny rush, Monterey coast paintbrush, Douglas' spineflower, crisp monardella, dunedelion, red sand verbena, suffrutescent wallflower found within foredune habitat. While conducting prescribed fire activities, special-status plants could be damaged or burned, despite best efforts to exclude the fire from the occupied special-status plant habitat. In addition, a special-status plant could be accidentally broken or trampled during any activities within occupied habitat. To reduce these impacts, CDPR implements Listed Plant AMMs 11 through 14, including establishing a fire line of mineral soils around known populations of special-status plant species and a trained botanist remains on-site during all fire activities. In addition, heavy equipment, including fire engines, are required to stay out of known sensitive habitat and locations for the placement and staging of heavy equipment are clearly marked on a map. As a result, the risk of impact

occurrence is low and the direct impacts from fire treatments are considered negligible. This trend is expected to continue in the future.

Yearly vegetation planting for habitat restoration can directly affect special-status plant species, including by trampling individuals during vegetation planting activities. However, vegetation is not planted directly in areas known to be occupied by special-status plants and is instead planted primarily in bare sand areas adjacent to existing vegetated areas, including vegetation islands, where special-status plants are less likely to occur. As a result, the risk of these activities damaging existing special-status plant populations is low. Restoration projects are also designed to match the existing plant community composition in the area to ensure that additional species planted are compatible with special-status plant species and that any additional species will not out compete existing special-status plant species. CDPR also implements Listed Plant AMMs 7 through 9, as appropriate. As a result, direct impacts from habitation restoration are negligible. This trend is expected to continue in the future.

The greatest threats during invasive plant and animal control activities are trampling and physical disruption to special-status plants while manually removing invasive vegetation. CDPR implements Listed Plant AMMs 15 through 22, as appropriate, including conducting pre-project surveys, implementing buffer zones, and using hand pulling methods are utilized, as necessary, to avoid any unnecessary impacts. In addition, biological monitors are present at all phases of the work to ensure that precautions and prohibitions regarding avoiding damage to special-status plant species are observed. The biological monitor can also stop work if unanticipated damage to special-status plant species occurs. As a result, the risk of impact occurrence is low and the direct impacts from invasive plant and animal control are negligible. This trend is expected to continue in the future.

Overall, monitoring, invasive species removal, and habitat restoration activities provide a net benefit for the listed plants and other native special-status plant species by removing invasive weedy species and thereby reducing competition from these species for space, light, water, and nutrients, as well as by providing additional suitable habitat for special-status species throughout the HCP area.

Conclusion: Overall beneficial impact.

La Graciosa Thistle Critical Habitat

Listed Plant Management (CA-15) and Invasive Plant and Animal Control (CA-17). Temporary and indirect effects on La Graciosa thistle critical habitat could occur during natural resource management activities, such as invasive plant control and listed plant management, by trampling individuals during vegetation planting activities. However, these effects will continue to be minimized by implementation of AMMs. In addition, these natural resource management activities benefit La Graciosa thistle and its critical habitat by removing invasive weedy species which reduces competition from these species for space, light, water, and nutrients and by improving the quality of suitable habitat, including critical habitat, within the HCP area.

Conclusion: Results in minor impacts to critical habitat. Overall beneficial impacts to critical habitat.

Park Maintenance

General Facilities Maintenance (CA-21), Trash Control (CA-22), and Cable Fence (CA-28). These activities already occur regularly within the HCP area. Impacts from these activities are similar to those described for motorized vehicle (CA-1) described above, especially since these activities occur on open sand beach. As a result, the risk of impact occurrence is low, and the direct impacts are negligible and indirect impacts are minor. In addition, the habitat impacts from these activities are considered minor due to the implementation of covered species AMMs. This trend is expected to continue in the future.

Conclusion: Results in a minor level of indirect impacts. Results in a minor level of habitat impacts.

Routine Riparian Maintenance (CA-26). Riparian habitat at the Oso Flaco Lake causeway, parking lot, and boardwalk; Meadow Creek access road, ranger station, and maintenance yard; Meadow Creek and Carpenter Creek, Pismo Lake, and Oceano Lagoon is maintained regularly. Routine riparian maintenance already occurs regularly in the HCP area and has not resulted in the loss of special-status plant species to date. Special-status plants, including marsh sandwort, Gambel's watercress, La Graciosa thistle, and beach spectaclepod are, however, known or have potential to occur at some or all of the routine riparian maintenance locations. Therefore, riparian maintenance has the potential to directly impact special-status plant species if they occur in an area designated for maintenance activities. However, CDPR implements Listed Plant AMM 23 as a part of conducting riparian maintenance, which includes conducting pre-activity surveys annually prior to commencing activities, flagging any observed special-status plants, and avoiding flagged areas by at least 10 feet or obtaining necessary permits. As a result, the risk of impact occurrence is low and the direct impacts from routine riparian maintenance on special-status plants are negligible. This trend is expected to remain the same in the future.

To date marsh sandwort and/or Gambel's watercress have not been observed within the Oso Flaco Lake culvert so the risk of impact occurrence is low. However, the possibility still exists that either marsh sandwort or Gambel's watercress could be attached to plants or root balls that are clogging the culvert at Oso Flaco Lake. Should this happen, it will require the individual(s) to be removed from the culvert. Every effort would be made to identify special-status plants before removal of vegetation in the culvert occurs to allow the opportunity to salvage the plant by moving it to another location. Although marsh sandwort or Gambel's watercress will be salvaged if possible, some individuals could be destroyed. However, any special-status plant left in the culvert will likely be damaged anyway due to high winter flows. As a result, any Gambel's watercress or marsh sandwort individuals that are blocking the culvert would be lost regardless of culvert maintenance activities. Therefore, direct impacts from culvert maintenance at Oso Flaco Lake on special-status plants are minor. This trend is expected to remain the same in future.

Conclusion: Results in a minor level of direct impacts.

La Graciosa Thistle Critical Habitat

Impacts to La Graciosa thistle critical habitat are not expected from park maintenance activities.

Conclusion: Impacts to critical habitat not expected.

Visitor Services

Access by non-CDPR Vehicles (CA-34) and Concessions (CA-36). Impacts from vehicles associated with these activities are similar to those described for motorized vehicle (CA-1) described above, especially since vehicles associated with these activities occur on open sand beach. As a result, the risk of impact occurrence is low, and the direct impacts are negligible and indirect impacts are minor. In addition, the habitat impact from these activities is moderate. This trend is expected to continue in the future.

Conclusion: Results in a minor level of indirect impacts. Results in a moderate level of habitat impacts.

Emergency Response by CDPR (CA-33). Emergency response activities already occur within the HCP area and can occur anywhere where an emergency response is required. Special-status plants could be driven over or crushed by vehicles or attendant personnel during an emergency response and/or habitat could be temporarily damaged. Emergency personnel and vehicles can also inadvertently facilitate the spread of invasive species (e.g., on shoes or clothing) by moving seeds or plant segments if they move from one place with invasive plants to a less impacted area. Invasive species could outcompete special-status plant species. Emergency response activities by nature require a quick response for public safety; therefore, protection of natural resources may not be possible during an emergency response. In addition, emergency response, although extremely rare, can occur within aquatic habitats and impact aquatic special-status plant species such as marsh sandwort and Gambel's watercress. Within the HCP area, emergency response activities within known special-status plant species habitats are extremely rare and destruction of sensitive habitat has not been documented to date. In addition, CDPR attempts to implement Listed Plant AMMs, as feasible, to minimize impacts to special-status plants. As a result, the risk of impact occurrence is low and the potential effect of these activities on special-status plants is considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

La Graciosa Thistle Critical Habitat

Impacts to La Graciosa thistle critical habitat are not expected from visitor service activities.

Conclusion: Impacts to critical habitat not expected.

Other Activities

Use of pesticides (CA-51). Herbicide use by aerial spraying may impact non-target, native vegetation, including special-status plant species. Truck mounted spraying and manual removal is unlikely to affect non-target vegetation because invasive vegetation is clearly identified for removal. However, herbicide application conducted on foot or from truck mounted sprayers can result in trampling or inadvertent damage to special-status plant

species if they occupy the same area as target plant species. Contamination of special-status plants from herbicides can also result from application drift, rainfall runoff, or residue leaching through the soil into groundwater. As a result, there is a moderate risk of impact occurrence from pesticide use activities. For any weed control activities, listed plants are flagged and avoided. Herbicide application does not occur during inclement weather to reduce impacts to non-target vegetation, including special-status species. In addition, only trained applicators apply herbicides and all label rates and other CDPR standard practices are followed. CDPR also takes extra precautions applying herbicides near open water and wetlands and other sensitive habitats that support native habitats and special-status plant species. Timing of herbicide application takes into account wind speed and moisture in the air to reduce the potential of transfer of herbicide to non-target plants. As a result, direct and indirect impacts from herbicide are considered minor. Overall, the use of herbicides results in reduced non-native vegetation and allow for expansion of native plant communities; therefore, herbicide application is expected to result in a net benefit to native vegetation, including special-status plant species. This trend is expected to continue in the future.

Conclusion: Results in a minor level of direct and indirect impacts. Overall beneficial impact.

La Graciosa Thistle Critical Habitat

Impacts to La Graciosa thistle critical habitat are not expected from use of pesticides.

Conclusion: Impacts to critical habitat not expected.

Effects of ITP Covered New Activities on Special-Status Plants

The following covered activities are new visitor use or park operation activities occurring within the HCP area. The risk of impact to special-status plants potentially impacted by new covered activities and an assessment of the impact magnitude are discussed below. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

New covered activities occurring outside of special-status plant species habitats do not impact these species. In addition, some new covered activities have little to no impact on special-status plant species, especially with the implementation of AMMs. ITP covered activities with no or negligible impacts include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), mechanical trash removal (CA-21), reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR UAS use (CA-52). These covered activities would have no or negligible effect on special-status species and are therefore dismissed from further discussion.

Minor to Moderate Impacts

Other Activities

Pismo Creek Estuary and 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, beach spectaclepod, surf thistle, La Graciosa thistle, and red sand verbena have the potential to occur along Pismo Creek estuary. 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. However, as part of the standard practices, CDPR would conduct a survey for special-status plant species prior to the start of construction during the appropriate phenological period, if determined to be necessary by a CDPR Environmental Scientist. Any special-status plant species found would be flagged and/or fenced off and avoided during construction. In addition, CDPR will also continue to provide educational content to workers and pedestrians in the area, which includes information on what they can do to prevent introducing invasive species. With implementation of these measures, the risk of impact occurrence is low and the direct and indirect impacts on special-status plants would be minor.

Conclusion: Results in a minor level of direct and indirect impacts. Overall beneficial impact.

Riding in 40 Acres (CA-42). Potentially suitable habitat for special-status plant species, including Nipomo Mesa lupine, Nuttall's milkvetch, Monterey Coast paintbrush, coastal goosefoot, Douglas's spineflower, Blochman's leafy daisy, Suffrutescent wallflower, fuzzy prickly phlox, crisp monardella, San Luis Obispo monardella, California spineflower, coast woolly-heads, south coast branching phacelia, sand almond, short-lobed broomrape, dune larkspur, and Blochman's groundsel could occur in the 40 Acres site. 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 out compete special-status plant species. However, if CDPR pursues the option of opening the 40 Acres site, planning would include surveys for special-status plant species within all areas under consideration for vehicular recreation to ensure impacts to special-status plants are minimized. In addition, trails open to vehicles would be sited with adequate buffers from any known occurrences of special-status plants. Known special-status plant occurrences found in the 40 Acres site would also be fenced to protect populations from trampling by park

visitors. As a result, the risk of impact occurrence is low and the direct and indirect impacts of this project on special-status species would be minor.

An increase in use 40 Acre 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 40 Acre site is unknown at this point and would depend on how much scrub is removed. Therefore, indirect impacts on special-status plant species habitat would be minor.

Proposed trail development in 40 Acres could remove up to 3 acres of vegetation in the silver bush lupine – mock heather dune scrub vegetation alliance, which is suitable habitat for some special-status plant species. Therefore, habitat impacts on special-status plant species habitat would be minor.

Conclusion: Results in a minor level of direct and indirect impacts. Results in a minor level of habitat impacts.

Dust Control Activities – New PMRP Foredune Vegetation (CA-44). Dust control activities have the potential to impact special-status plants directly and indirectly, including by altering habitat (e.g., changing species composition as a result of altered wind, sand transport, or moisture content). The potential magnitude of impacts on special-status plants varies depending on where activities take place. In general, the potential risk and magnitude of impacts on special-status plants are lowest when dust control activities take place in open sand habitat because these areas support little to no dune vegetation. As program activities approach the edge of vegetation islands and other vegetated areas the potential to impact special-status plants increases. However, as part of their standard practices, CDPR would conduct a pre-activity survey for special-status plants, if determined to be necessary by a CDPR Environmental Scientist. Any plants observed would be flagged and avoided. Overall, planting of 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, direct and indirect impacts on special-status plants would be minor.

Conclusion: Results in a minor level of direct and indirect impacts. Overall beneficial impact.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Boardwalk would be replaced within aquatic habitat. Construction details are not currently available; however, heavy equipment would be used to conduct the work. Special-status plant species that could be impacted include those species that have been found within the Oso Flaco Lake area, including, but not limited to, Gambel's watercress and marsh sandwort.

Project activities such as dredging, pile driving, and dewatering activities could have both direct and indirect impacts on special-status plants that potentially occur within the project area. 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, vehicle traffic, and worker foot traffic may result in the injury or mortality of individual special-status plants. However, the Oso Flaco Lake boardwalk replacement would be subject to review and permitting by the USACE and RWQCB under the Section

404/401 of the Clean Water Act and/or the CDFW under Section 1600 of the California Fish and Game Code. As part of the these permits and/or as part of CDPR's standard practices for this type of construction, measures would be developed to protect special-status plant species and their habitat, including, but not limited to, BMPs to protect water quality and pre-activity clearance surveys, as necessary, to protect individual plant species from construction-related impacts. With implementation of these measures, the risk of impact occurrence is low and the direct and indirect impacts on special-status plants would be minor.

Project activities in water may affect 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 may also cause an increase in invasive weed 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, the risk of impact occurrence is low and the indirect impacts to special-status plants from boardwalk replacement would be minor.

Conclusion: Results in a minor level of direct and indirect impacts.

Special Projects (CA-49). Given that there is no defined project considered by special projects (CA-49), potential impacts are not known at this time. Special projects would not be constructed within Phillips 66 Leasehold or aquatic habitats; therefore, special-status plants in these areas (e.g., marsh sandwort, Gambel's watercress) would not be impacted. Installation, operation, and maintenance of new facilities have potential to directly (e.g., trampling or crushing) or indirectly (e.g., dust) affect special-status plant species. Facilities could be installed on open sand, within vegetation islands, and/or backdunes; therefore, special-status plants throughout the HCP area could be impacted, including, but not limited to, Blochman's groundsel, Bochman's leaf daisy, California spineflower, coastal goosefoot, crisp monardella, dunedelion, fuzzy prickly phlox, red sand verbena, and suffrutescent wallflower. Equipment use and worker foot traffic during construction of the 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. In addition, construction activities could introduce invasive weeds to the area, which could out compete 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 CDPRs standard practices, to minimize the potential impacts to special-status plants, prior to the start of any special project installation in suitable habitat for special-status plant species as determined by a CDPR Environmental Scientist, a biologist with experience in identifying the plants will conduct surveys for special-status plant species throughout the proposed special project area. Any special-status plants encountered will be marked on a map, flagged, or fenced, and avoided. Therefore, the risk of impact occurrence is low and the direct and indirect impacts on special-status plant species would be minor.

Special projects may also result in the permanent loss of up to 35 acres of La Graciosa thistle, beach spectaclepod, and/or surf thistle 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, the risk of impact occurrence is low and the effects on special-status plant species habitat would be minor.

Conclusion: Results in a minor level of direct and indirect impacts. Results in a minor level of habitat impacts.

La Graciosa Thistle Critical Habitat

Up to 145 acres[19] of La Graciosa thistle critical habitat may be affected by cultural resource management, dust control activities, the construction of special projects, and the 40 Acres trail due to ground disturbance or new vegetation planting associated with these activities. These activities could result in an actual change in existing habitat conditions, as opposed to the conditions resulting from ongoing recreation, but not all such changes would be adverse (e.g., vegetation plantings for dust control). Specifically, new facilities constructed as a special project, digging associated with a cultural resource site, and riding in 40 Acres within La Graciosa thistle critical habitat would remove critical habitat. Overall, removing up to 45 acres of critical habitat for these activities only represents 0.016 percent of the total amount of critical habitat currently available within the HCP area. In addition, AMMs such as restoring vegetation to pre-activity conditions would be implemented for these activities and are expected to avoid or minimize effects on La Graciosa thistle critical habitat. Therefore, the Service considers impacts associated with these activities minor.

Dust control activities would primarily be installed in sandy dune habitat, so no impacts to existing mesic habitats are expected, and any vegetation installed potentially provides new habitat for La Graciosa thistle colonization. Similarly, sensitive cultural resources sites are typically protected from recreation activities and, thus, may also benefit La Graciosa thistle by prohibiting recreation activities from La Graciosa thistle habitat. Therefore, the Service considers these impacts beneficial.

Conclusion: Results in minor impacts to critical habitat. Overall beneficial impacts from dust control activities.

Sensitive Natural Communities, Habitats, and Vegetation Alliances

Natural communities include vegetation communities designated by the Service, CDFW, California Coastal Commission (CCC), and other Federal, State, or local agencies. There are numerous CDFW sensitive natural communities within the HCP area, including central dune scrub, central foredunes, coastal and valley freshwater marsh, black cottonwood (*Populus trichocarpa*) forest, coast live oak (*Quercus agrifolia*) woodland, dune mat, Beach

[19] Total includes 5 acres of cultural resource management measures, 94 acres subject to motorized recreation that could be closed for dust control, 3 acres of wind fencing to be converted to vegetation, 3 acres of temporary air quality monitoring equipment, 35 acres of special projects, and 5 acres of trail riding in 40 Acres.

pine (*Pinus contorta* ssp. *contorta*) forest, silver dune lupine (*Lupinus chamissonis*)-mock heather scrub (*Ericameria ericoides*), Arroyo willow (*Salix lasiolepis*) thickets, coyote brush (*Baccharis pilularis*) scrub, wax myrtle (*Morella californica*) scrub, giant coreopsis (*Coreopsis gigantea*) scrub, coastal brambles, blue elderberry (*Sambucus nigra* ssp. *caerulea*) stands, California bulrush (*Schoenoplectus californicus*) marsh, salt rush swales, field sedge (*Carex praegracilis*) meadows, mats of bur-reed (*Sparganium eurycarpum*) leaves, pickleweed (*Sarcocornia pacifica*) mats, Pacific silverweed (*Argentina egedii*) marshes, giant wild rye (*Leymus condensatus*) grassland, and American bulrush (*Schoenoplectus americanus*) marsh.

Critical habitat designated by the Service is present within the HCP area including for SNPL, tidewater goby, and La Graciosa thistle. Impacts to critical habitat are discussed in EA Appendix D under the appropriate species and briefly mentioned below.

The HCP area also contains several Environmentally Sensitive Habitat Areas (ESHAs) as defined by the City of Grover Beach Local Coastal Program (LCP), City of Pismo Beach LCP, and San Luis Obispo County LCP (City of Grover Beach 2019, City of Pismo Beach 2019, County of San Luis Obispo 2019). 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.

Effects of ITP Covered Existing Activities on Sensitive Natural Communities, Habitats, and Vegetation Alliances

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to sensitive natural vegetation communities from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

The following are existing park operations covered by the HCP and their potential for impacts to sensitive natural communities, habitats, and vegetation alliances. Impacts to jurisdictional aquatic resources are discussed below.

No or Negligible Impacts

Covered activities occurring outside sensitive natural communities and/or that have no risk of impacting sensitive natural communities are dismissed from further discussion. ITP covered activities with no impact on sensitive natural communities include golfing (CA-4); boating/surfing (CA-8); aerial/wind driven activities (CA-9); Pismo Beach Golf Course operations (CA-37), and CDPR agricultural land management (CA-46).

Some existing covered activities occur in sensitive natural communities as defined by the Service, CDFW, and/or CCC. However, many of these recreation related activities, park maintenance activities, and/or natural resource management activities do not remove or destroy sensitive natural vegetation communities and/or result in significant impacts to sensitive natural communities. These activities include bicycling (CA-4), fishing (CA-5), dog walking (CA-6), SNPL and CLTE Management (CA-12a and 12b), tidewater goby and salmonid surveys (CA-13), CRLF surveys and associated management (CA-14), listed plant monitoring (CA-15), HMS (CA-18), general facilities maintenance (CA-21), trash control

(CA-22), cable fence maintenance (CA-28), heavy equipment response (CA-29), ranger and lifeguard patrols (CA-32), emergency response by CDPR staff (CA-33), access by non-CDPR vehicles (CA-34), concessions (CA-36), natural history and interpretation programs (CA-39), and dust control activities (CA-44).

Invasive plant and animal control (CA-17) and water quality monitoring (CA-19) improve habitat by planting native plants, improving water quality, removing invasive plants, and ultimately restoring native vegetation and sensitive natural communities in the HCP area.

Because these activities do not have a substantial adverse impact on any riparian habitat or sensitive natural community they are dismissed from further discussion.

Minor to Moderate Impacts

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), Equestrian Recreation (CA-7), Holidays (CA-10) and Special Events (CA-11). Human uses, including motorized recreation, camping, pedestrian activities, and equestrian recreation, can alter vegetation within sensitive natural communities. Human visitors in the area can trample vegetation and/or disturb soils making them less suitable for native vegetation. Human visitors and horses can also introduce non-native, invasive plant species that can out-compete native vegetation, thus, changing the composition of natural communities. These impacts can be exacerbated during holidays and special events when more visitors may be in the HCP area. However, within the HCP area, most of these recreation activities occur on bare sand. In addition, CDPR provides educational content and posts signs to keep visitors from entering sensitive areas and CDPR closes and restores informal trails in sensitive natural communities. As a result, direct and indirect impacts to sensitive natural communities from these activities are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

Park Maintenance

Routine Riparian Maintenance (CA-26). Routine riparian maintenance activities routinely occur in HCP area. These activities include ongoing maintenance of trails, infrastructure, or other projects designed to facilitate access while still providing the greatest protection possible to riparian and aquatic maintenance areas. Routine riparian maintenance impacts Oso Flaco Lake, Meadow Creek, Carpenter Creek, Pismo Lake, and/or Oceano Lagoon during culvert maintenance; removal of sediment, vegetation, and/or debris from the spillway at Pismo Lake; removal of emergent species; removal of exotic species; and/or trimming of riparian trees and vegetation. CDPR currently has a Lake or Streambed Alteration Agreement (1600-2012-0001-R4) for these activities in compliance with Section 1600 of the California Fish and Game Code. The Lake and Streambed Alteration Agreement includes measures to protect riparian vegetation including, minimizing the amount of riparian vegetation removed (including trees and shrubs) to the minimum necessary to complete the project, leaving roots and stumps in place to facilitate regrowth and prevent erosion, replacing all woody plants/trees with a diameter breast height (DBH) of four inches at a 3:1 ratio, replacing all heritage trees with a DBH of 24 inches or greater at a 10:1 ratio, and submitting a revegetation plan to the CDFW for review and approval. As a result, direct impacts to riparian vegetation are minor. This trend is expected to continue in

the future. Impacts to jurisdictional waters associated with the riparian maintenance activities are discussed in more detail below under jurisdictional waters.

Conclusion: Results in a minor level of direct impacts.

Other Activities

Motorized Vehicle Crossing of Pismo/Carpenter, Arroyo Grande Creek, and Oso Flaco Creeks (CA-40). Impacts to sensitive natural communities from this project are discussed below under jurisdictional waters since the sensitive natural communities are aquatic resources.

Use of Pesticides (CA-51). CDPR controls infestations of terrestrial invasive plant species, including Russian wheatgrass (*Elymus farctus ssp. boreali-atlanticus*), veldt grass (*Ehrharta calycina*), European beachgrass (*Ammophila arenaria*), cape ivy (*Delairea odorata*), and pampas grass (*Cortaderia selloana*) within the HCP area, including within sensitive natural vegetation communities where invasive plant species are prevalent. Herbicide use by aerial spraying, truck mounted spraying, and manual removal may impact native vegetation communities by trampling or inadvertently damaging native vegetation within the community. Contamination of non-target, native species from herbicides could also result from application drift, rainfall runoff, or residue leaching through the soil into groundwater. However, herbicide application does not occur during inclement weather to reduce impacts to non-target vegetation. In addition, only trained applicators apply herbicides and all label rates and other CDPR standard practices are followed. Timing of herbicide application takes into account wind speed and moisture in the air to reduce the potential of transfer of herbicide to non-target plants. CDPR also applies all algaecides and aquatic pesticides in accordance with the Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Application. Currently, CDPR is developing an Aquatic Pesticide Application Plan for the NPDES Permit. All algaecides and aquatic herbicides used by CDPR are registered for use on aquatic sites by the California Department of Pesticide Regulation. As a result, direct and indirect impacts from herbicide are considered minor. Overall, the use of herbicides results in reduced non-native vegetation and allow for expansion of native plant communities; therefore, herbicide application is expected to result in a net benefit to native vegetation. This trend is expected to continue in the future.

Conclusion: Results in a minor level of direct and indirect impacts. Overall beneficial impact.

Effects of ITP Covered New Activities on Sensitive Natural Communities, Habitats, and Vegetation Alliances

The following covered activities are new visitor use or park operation activities occurring within the HCP area. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside sensitive natural communities and/or that have no risk of impacting sensitive natural communities are dismissed from further discussion. Only one

covered activity would have no impact on sensitive natural communities, CDPR UAS use (CA-52). This covered activity is therefore dismissed from further discussion.

Some new covered activities occur in sensitive natural communities as defined by the Service, CDFW, and/or CCC. However, many of these activities do not remove or destroy sensitive natural vegetation communities and/or result in significant impacts to sensitive natural communities. These activities include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), and reduction of the Boneyard Exclosure and 6 Exclosure (CA-50).

Minor to Moderate Impacts

Park Maintenance

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). Mechanical trash removal would also avoid all live vegetation by at least 200 feet and all aquatic areas by greater than 1,000 feet. As a result, mechanical trash removal is only expected to impact bare, open sand areas. However, mechanical trash removal may occur within SNPL critical habitat (outside the seasonal exclosure) and La Graciosa thistle critical habitat as well as ESHA defined by the CCC. Critical habitat and ESHA are considered sensitive habitat. Mechanical trash removal could temporarily remove favorable constituents within SNPL and La Graciosa thistle critical habitat as well as ESHA by altering dune composition and topography. Specifically, mechanical trash removal could temporarily 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. These areas have always supported an ongoing high level of recreation (i.e., presence of humans, pets, vehicles, and/or human attracted predators)[20] and, therefore, critical habitat and ESHA in this area has limited value. In addition, mechanical trash removal may improve the habitat by removing trash from the area. As a result, direct impacts to sensitive natural communities would be minor.

Conclusion: Results in a minor level of direct impacts.

Other Activities

Pismo Creek Estuary Seasonal Floating Bridge (CA-41). Impacts to sensitive natural communities from this project are discussed below under jurisdictional waters since the sensitive natural communities are aquatic resources.

Riding in 40 Acres (CA-42). The “40 Acres” is area that was planted with native vegetation for dune stabilization and is currently closed to motorized recreation. The 40 Acre trail system is still in the concept stage with numerous alternative designs, but none have been selected for implementation. The design may include up to 2 miles of trail with basic

[20] 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).

amenities installed along the trail such as a picnic table or interpretive features. Proposed trail development in 40 Acres could remove up to 4.8 acres of vegetation in the silver bush lupine – mock heather dune scrub vegetation alliance, which occurs in Central Coast Dune Scrub, a CDFW listed sensitive natural community and may be considered an ESHA by CCC due to the potential presence of special-status plants.

Use of equipment, vehicle traffic, and worker foot traffic during construction of the 40 Acre trail may directly or indirectly effect 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. Invasive plants degrade habitat quality for native plants by altering vegetative structure and often outcompeting native plants. As part of their standard practices, CDPR would implement BMPs during construction activities, as necessary, to reduce impacts. These BMPs could include fencing off adjacent areas, erosion control, dust control, and/or biological monitoring. As a result, direct and indirect impacts on sensitive natural communities would be minor.

An increase in use 40 Acre site 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 40 Acre site is unknown at this point and would depend on how much scrub is removed. The 40 Acre site is subject to additional environmental review, which would include measures to reduce or mitigate impacts to sensitive natural vegetation communities. Therefore, the indirect impacts on sensitive natural communities would be minor.

Proposed trail development in 40 Acres could remove up to 4.8 acres of vegetation in the silver bush lupine – mock heather dune scrub vegetation alliance. Therefore, a limited amount of permanent effects on sensitive natural communities would occur. The 40 Acre site is subject to additional environmental review, which would include measures to reduce or mitigate impacts to sensitive natural vegetation communities. As a result, direct impacts would be minor.

Conclusion: Results in a minor level of direct and indirect impacts.

<u>Dust Control Activities – New PMRP Foredune Vegetation (CA-44)</u>. Dust control activities have the potential to impact sensitive natural vegetation communities directly and indirectly, including by altering habitat (e.g., changing species composition as a result of altered wind, sand transport, or moisture content). The potential magnitude of impacts on sensitive vegetation communities varies depending on where activities take place. The location for the 52 acres of foredune vegetation is considered ESHA and critical habitat for La Graciosa thistle and SNPL. In general, the potential magnitude of impacts on sensitive vegetation communities are lowest when dust control activities take place in open sand habitat because these areas support little to no dune vegetation and any impacts to this habitat would not be significant. As program activities approach the edge of vegetation islands and other vegetated areas the potential to impact sensitive plant communities increases. Some dust control activities (e.g., deployment of temporary monitoring sites) would also require a minor amount (e.g., less than 0.5 acre) of native vegetation removal. However, as part of their standard practices, CDPR would implement BMPs during construction activities, as necessary, to reduce impacts. These BMPs could include fencing off adjacent areas, erosion control, and/or biological monitoring. In addition, new dust control activities

identified in the Draft PRMP (CDPR, 2019) are subject to environmental review, which could include measures to reduce or mitigate impacts to sensitive natural vegetation communities. As a result, direct and indirect impacts to sensitive vegetation communities would be minor.

Conclusion: Results in a minor level of direct and indirect impacts.

Oso Flaco Lake Boardwalk Replacement (CA-48). Impacts to sensitive natural communities from this project are discussed below under jurisdictional waters since the sensitive natural communities are aquatic resources.

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 vegetation communities are already degraded. Any special projects proposed would be evaluated during the project design phase by a CDPR Environmental Scientist staff member to ensure that impacts to native vegetation 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 natural communities are expected to be minor.

Use of equipment, vehicle traffic, and worker foot traffic during construction of a special project may directly or indirectly effect 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. As part of their standard practices, CDPR would implement BMPs during construction activities, as necessary, to reduce impacts. These BMPs could include fencing off adjacent areas, erosion control, dust control, and/or biological monitoring. As a result, effects on sensitive natural communities would be minor.

Conclusion: Results in a minor level of direct and indirect impacts.

Jurisdictional Waters, including Wetlands

Effects of ITP Covered Existing Activities on Jurisdictional Waters, including Wetlands

The following covered activities are existing ongoing visitor use or park operation activities occurring within the HCP area. Effects to jurisdictional waters from these activities are existing environmental conditions. No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no new impact generated by these activities. Existing covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Many existing and new covered activities do not occur within or near jurisdictional waters, including wetlands and have no risk of impacting these resources. Covered activities with no potential to impact jurisdictional waters include camping (CA-2), bicycling and golfing (CA-4), special events (CA-11), SNPL and CLTE management (CA-12), HMS (CA-18), general facilities maintenance (CA-21), trash control (CA-22), cable fence maintenance

(CA-28), heavy equipment response (CA-29), beach concessions (CA-36), Pismo Beach Golf Course operations (CA-37), natural history and interpretation programs (CA-39), dust control activities (CA-44), and CDPR management of agricultural lands (CA-46). These activities would have no impacts on jurisdictional waters, including wetlands, and are, therefore, dismissed from further discussion.

Some existing covered activities occur in jurisdictional waters, including wetlands, creeks, lakes, and/or the ocean. However, many of these activities are recreation related activities that cause temporary impacts (e.g., increased turbidity) and are not subject to Section 404/401 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, or Section 1600 of California Fish and Game Code. These activities include motorized recreation (CA-1), pedestrian activities (CA-3), fishing (CA-5), dog walking (CA-6), equestrian recreation (CA-7), boating/surfing (CA-8), aerial/wind driven activities (CA-9), holidays (CA-10), special events (CA-11), tidewater goby and salmonid surveys (CA-13), CRLF surveys and associated management (CA-14), listed plant monitoring (CA-15), invasive plant and an animal control (CA-17), water quality monitoring (CA-19), range, lifeguard, and staff patrols (CA-32), emergency response (CA-33), access by non-CDPR vehicles (CA-34), and motorized vehicle crossing of creeks (CA-40). No changes to these activities are proposed by the HCP; therefore, the Proposed Action would have no or negligible impacts on jurisdictional waters and are; therefore, dismissed from further discussion.

Minor to Moderate Impacts

Park Maintenance

Routine Riparian Maintenance (CA-26). Routine riparian maintenance activities impact Oso Flaco Lake, Meadow Creek, Carpenter Creek, Pismo Lake, and/or Oceano Lagoon during culvert maintenance; removal of sediment, vegetation, and/or debris from the spillway at Pismo Lake; removal of emergent species; removal of exotic species; and/or trimming of riparian trees and vegetation. CDPR currently has a Lake or Streambed Alteration Agreement (1600-2012-0001-R4) for these activities in compliance with Section 1600 of the California Fish and Game Code and measures from the LSAA are implemented, as appropriate, during all riparian maintenance activities. Therefore, direct and indirect impacts from routine riparian maintenance on jurisdictional resources are minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

Other Activities

Use of Pesticides (CA-51). CDPR controls infestations of terrestrial invasive plant species Russian wheatgrass, European beachgrass, veldt grass, and giant reed present within the HCP area including along riparian corridors, lagoons, and wetlands. Aerial application of pesticides is not conducted within 100 feet to reduce impact to aquatic resources. Contamination of water from pesticide application can occur from application drift, rainfall runoff, or residue leaching through the soil into groundwater. However, herbicide application does not occur during inclement weather to reduce impacts from drift. In addition, only trained applicators apply herbicides and all label rates and other CDPR standard practices are followed. Timing of herbicide application takes into account wind speed and moisture in the air to reduce the potential of transfer of herbicide to adjacent waterbodies. CDPR also

applies all algaecides and aquatic in accordance with the Statewide General NPDES Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Application. Currently, CDPR is developing an Aquatic Pesticide Application Plan for the NPDES Permit. In addition, CDPR applies all algaecides and aquatic herbicides according to label directions. All algaecides and aquatic herbicides used by CDPR are registered for use on aquatic sites by the California Department of Pesticide Regulation. As a result, direct and indirect impacts to aquatic resources from pesticide use are considered minor. This trend is expected to continue in the future.

Conclusion: Results in a minor level of direct and indirect impacts.

Effects of ITP Covered New Activities on Jurisdictional Waters, including Wetlands

The following covered activities are new visitor use or park operation activities occurring within the HCP area. New covered activities that do not result in residual take of Covered Species (EA Table 2-2) are not discussed further in this section.

No or Negligible Impacts

Covered activities occurring outside jurisdictional waters and wetlands have no or negligible risk of impacting waters and wetlands and are dismissed from further discussion. New covered activities with no or negligible impact to jurisdictional waters and wetlands include SNPL and CLTE management – SNPL chick and egg capture for captive rearing if observed to be threatened by recreation activity and other non-covered species management activities (CA-12b), SNPL and CLTE management – SNPL adult banding (CA-12b), mechanical trash removal (CA-21), riding in 40 Acres (CA-42), dust control – new PMRP (CA-44), special projects (CA-49), reduction of the Boneyard Exclosure and 6 Exclosure (CA-50), and CDPR use of UAS (CA-52).

Minor to Moderate Impacts

Other Activities

Pismo Creek Estuary Seasonal Floating Bridge (CA-41). The seasonal floating bridge would occur in Pismo Creek, which is a jurisdictional water. This action would be subject to review and permitting by the USACE and RWQCB under the Section 404/401 of the Clean Water Act and/or the CDFW under Section 1600 of the California Fish and Game Code. With implementation of AMMs and conditions included in the permits, the overall direct and indirect operational impacts of the Pismo Creek estuary seasonal floating bridge would have a minor impact on jurisdictional waters. In addition, installing the bridge should have a beneficial impact on Pismo Creek by reducing the pedestrian impact and, thereby, reducing erosion at Pismo Creek and by providing an alternative to walking through the mouth of the creek to access the coast.

Construction activities could indirectly cause the degradation of water quality due to erosion and transport of fine sediments downstream of the construction area and unintentional release of contaminants into jurisdictional waters that are outside of the footprint of project area. The project would not disturb more than one acre of soil; therefore, the project would not be subject to an NPDES Construction General Permit. As part of CDPR's standard practices, BMPs and spill prevention and control measures would be implemented, as appropriate. As a result, impacts to the water quality of waters under the jurisdiction of the USACE, CDFW, and/or RWQCB downstream of the construction area would be minor.

Conclusion: Results in a minor level of direct and indirect impacts. Overall beneficial impact.

Oso Flaco Lake Boardwalk Replacement (CA-48). The Oso Flaco Lake boardwalk spans riparian habitat and open water at Oso Flaco Lake. Boardwalk replacement would impact aquatic and riparian habitats during project construction; therefore, this action would be subject to review and permitting by the USACE and RWQCB under the Section 404/401 of the Clean Water Act and/or the CDFW under Section 1600 of the California Fish and Game Code. With implementation of AMMs and the conditions included in the permits, the boardwalk replacement would have minor direct and indirect impacts on jurisdictional waters and wetlands.

Construction activities could indirectly cause the degradation of water-quality due to erosion and transport of fine sediments downstream of the construction area and unintentional release of contaminants into jurisdictional waters that are outside of the footprint of project area. The project is expected to impact approximately 0.16 acres and would, therefore, not disturb more than one acre of soil. As a result, the project would not be subject to an NPDES Construction General Permit. As part of CDPR's standard practices, BMPs and spill prevention and control measures would be implemented, as appropriate. As a result, impacts to the water quality of waters under the jurisdiction of the USACE, CDFW, and/or RWQCB downstream of the construction area would be minor.

Conclusion: Results in a minor level of direct and indirect impacts.

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Oceano Dunes District
Habitat Conservation Plan EA

Appendix E: Cumulative Project Impacts on Special-Status Species

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Appendix E: Cumulative Project Impacts on Special-Status Species

The new ITP 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 minor if the AMMs or mitigation 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 EA section 3.4, Table 3-1.

Western Snowy Plover

HCP Potential Future Covered Activities

Listed Plant Management – Propagation and Outplanting (CA-15). Most listed plants do not occur in areas where SNPL would nest, forage, or roost. Beach spectaclepod and surf thistle occur in North and South Oso Flaco during the breeding season. Because of the timing of their blooming and growth periods, both plant species can only be accurately identified by doing surveys during the SNPL breeding season. Any propagation or outplanting of beach spectaclepod or surf thistle would be conducted by a 10(a)(1)(A) SNPL- and CLTE-permitted (or a Service-approved) biologist, or by crews working under the direction of the permitted/Service-approved biologist. As a result, no mortality or injury of SNPL is expected to occur. However, propagation and outplanting of these species could disturb nesting SNPL and deter them from incubating eggs or brooding chicks during the period of disturbance. CDPR staff would implement AMMs, including, but not limited to, SNPL AMMs 93 through 98 to minimize any impacts to SNPL. As a result, any disturbance-related impacts would be negligible.

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. To minimize impacts associated with cable fence replacement, replacement of the cable fence would occur infrequently (i.e., every 10–15 years) and would be subject to pre-construction SNPL surveys. Any cable fence replacement work needed in or near SNPL foraging or roosting habitat would be conducted when SNPL were not observed to be present within 150 feet of the work area. Therefore, any disturbance-related impacts to wintering SNPL from cable fence replacement would be negligible.

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 to wintering SNPL from the Grover Beach Lodge would be negligible.

Replacement of the Safety and Education Center (CA-43). The safety and education center is located between Post 4 and Post 5, just south of Pavilion Hill. The kiosk comprises a simple metal frame structure supporting informational panels. Replacement of this structure would involve minimal ground disturbance. The kiosk is outside of the SNPL typical nesting area, which is south of Post 6. Any nests that may occur outside the typical SNPL nesting

area in or near the safety and education center area would be identified by park staff through routine monitoring that is conducted as part of the SNPL management program and protected (SNPL AMMs 8 through 19). As a result, no impact to nesting SNPL is expected.

Replacement of the safety and education center could disturb foraging and/or roosting 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. CDPR would conduct pre-construction surveys for SNPL prior to starting work and delay activity until SNPL are no longer present (SNPL AMM 102). As a result, potential impacts to foraging and/or roosting SNPL from kiosk maintenance or replacement would be negligible.

Dust Control Activities – New PMRP backdune (CA-44). Impacts to SNPL from dust control activities are described in HCP section 4.3.1.5.5. Most new dust control activities would occur within the backdunes, which is considered tertiary habitat for SNPL. Impacts in tertiary habitat would not impact SNPL.

Increased SNPL Take from HCP Potential Future Activities

The future covered activities not included in the ITP, including listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), replacement of the safety and education center (CA-43), and dust control activities – new PMRP backdune (CA-44), would not contribute to SNPL take numbers identified in the HCP. As a result, future covered activities would have no impact on SNPL take.

CDPR Public Works Plan Projects

CDPR PWP projects (Projects B through G) would occur outside of SNPL primary and secondary habitat and would have no impact on breeding or wintering SNPL or result in critical habitat modification. Oso Flaco Campground and Day Use Project (Project A) could include construction of a pedestrian trail and lifeguard tower that could impact breeding and/or wintering SNPL. In addition, the Pismo Beach Boardwalk (Project H) would include construction of a boardwalk within SNPL secondary habitat. Boardwalk construction, and pedestrians accessing the boardwalk could disrupt SNPL during the non-breeding season if SNPL roost or forage nearby. As part of the project planning process, the PWP projects would be subject to CEQA review, under which the impacts of each project on breeding and non-breeding SNPL would be evaluated and mitigated as needed. CDPR would also seek an amendment to the HCP if SNPL take coverage is needed for a PWP project. As a result, the impact of these projects on SNPL are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to SNPL were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final Comprehensive Conservation Plan (CCP) Environmental Assessment (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some minor daytime disturbances and flushing of SNPL. However, the NWR CCP would benefit SNPL overall by monitoring for SNPL, controlling for feral swine, conducting avian and mammalian predator management, installing nest exclosure to minimize the loss of eggs to predation and accidental trampling by humans, restricting public access on the NWR during the SNPL nesting season and controlling invasive plant species. The impact of this project on SNPL would be beneficial.

Arroyo Grande Creek Channel Waterway Management Plan

SNPL's potential to occur was evaluated as part of the Arroyo Grande Creek Channel Waterway Management Plan (WMP) EIR (SWCA Environmental Consultants 2010). It was determined that suitable SNPL habitat is not present within the project area. As a result, no impact from this activity would occur.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP, would have a significant, adverse impact on SNPL. Furthermore, given the implementation of AMMs, impacts on SNPL from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on SNPL.

California Least Tern

HCP Potential Future Covered Activities

Listed Plant Management – Propagation and Outplanting (CA-15). Most listed plants do not occur in areas where CLTE would nest, forage, or roost. In addition, listed plant propagation and outplanting would occur outside the CLTE breeding season, if feasible. Beach spectaclepod and surf thistle occur in North and South Oso Flaco. Because of the timing of their blooming and growth periods, both plant species can only be accurately identified by doing surveys during the CLTE breeding season. CLTE is not known to nest within North and South Oso Flaco; therefore, impacts from propagation and outplanting of beach spectaclepod and surf thistle are not expected. In addition, any propagation or outplanting of beach spectaclepod or surf thistle would be conducted by or under the direction of a 10(a)(1)(A) SNPL- and CLTE-permitted (or a Service-approved) biologist. As a result, no injury or mortality impacts would be expected to occur even if CLTE did nest in the area. However, propagation and outplanting of these species could disturb nesting CLTE if they nest within North or South Oso Flaco in the future and could deter them from incubating eggs or attending chicks during the period of disturbance. CDPR staff would implement AMMs, including, but not limited to, CLTE AMMs 81 through 86 to minimize any potential impacts to CLTE. As a result, disturbance-related impacts would be negligible.

Cable Fence Maintenance – Replacement (CA-28). 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.

Replacement of the Safety and Education Center (CA-43). The safety and education center is located between Post 4 and Post 5, just south of Pavilion Hill. The kiosk comprises a simple metal frame structure supporting informational panels. Replacement of this structure would involve minimal ground disturbance. The kiosk is outside of the CLTE typical nesting area, which is south of Post 6. Any nests that may occur outside the typical CLTE nesting area in or near the safety and education center area would be identified by park staff through routine monitoring occurring as part of the CLTE management program and would be protected (CLTE AMMs 7 through 16). As a result, impacts to nesting CLTE are not expected and potential impacts to CLTE from kiosk maintenance or replacement would be negligible.

Dust Control Activities – New PMRP backdune (CA-44). Impacts to CLTE from dust control activities are described in HCP section 4.4.1.5.5. Most new dust control activities would occur within the backdunes, which is considered tertiary habitat for CLTE. Impacts in tertiary habitat would not impact CLTE.

Increased CLTE Take from HCP Potential Future Activities

The future covered activities not included in the ITP, including listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), replacement of the safety and education center (CA-43), and dust control activities – new PMRP backdune (CA-44), would not contribute to CLTE take numbers identified in the HCP. As a result, future covered activities would have no impact on CLTE take.

CDPR Public Works Plan Projects

CDPR PWP projects (B–G and H) would occur outside of CLTE primary and secondary habitat and would have no impact on breeding CLTE. The Oso Flaco Campground and Day Use Project (Project A) could include constructing a pedestrian trail and vegetation buffer around Oso Flaco Lake. Construction and pedestrian use of the trail during the breeding season could disrupt foraging CLTE, including fledglings learning to feed, when present. As part of the project planning process, the PWP projects would be subject to CEQA review, under which the impacts of each project on CLTE would be evaluated and mitigated as needed. CDPR would also seek an amendment to the HCP if CLTE take coverage is needed for a PWP project. As a result, the impact of these projects on CLTE are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to CLTE were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final CCP Environmental Assessment (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some minor daytime disturbances and flushing of CLTE. However, the NWR CCP would benefit CLTE overall by documenting incidental sightings of CLTE, controlling for feral swine, conducting avian and mammalian predator management, restricting public access on the NWR during the CLTE nesting season and controlling invasive plant species. As a result, the impact of this project on CLTE would be beneficial.

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

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP, would have a significant, adverse impact on CLTE. Furthermore, given the implementation of AMMs, impacts on CLTE from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on CLTE.

California Red-Legged Frog

HCP Potential Future Covered Activities

Listed Plant Management – Propagation and Outplanting (CA-15). 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. CDPR would implement CRLF AMMs 18, 19, and 20 to minimize the impact due to disturbance, including conducting surveys for CRLF and egg masses within 100 feet of activities to verify that no CRLF are present. Activities would be delayed until any individuals have moved from the area or appropriate AMMs (e.g., relocation or biological monitoring) are in place. As a result, impacts would be negligible.

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 to CRLF would occur from the Grover Beach Lodge.

Replacement of the Safety and Education Center (CA-43). This activity would not occur within CRLF aquatic habitat and CRLF are unlikely to disperse through this area. As a result, potential impacts would be negligible.

Dust Control Activities – New PMRP Backdune (CA-44). Dust control activities in the backdunes would not result in impacts to CRLF aquatic habitat. Dust control activities could temporarily disturb aestivating or dispersing CRLF during activities. It is unlikely, but possible that CRLF could disperse through or be found in open sand areas prior to dust control measures being installed. Individuals in a dust control work area could be injured or crushed. AMMs for CRLF would be applied 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 dispersing CRLF would be negligible.

Dust control activities in the backdunes would alter approximately 350 acres of upland dispersal habitat for CRLF through planting of vegetation and placement of dust control devices and monitoring equipment. This impact is negligible since few CRLF have been found in the HCP area and additional dispersal habitat continues to be available in the HCP area. In addition, vegetation planted from dust control activities and some dust control devices provide necessary cover for CRLF if they are dispersing through the area and may provide some benefit to CRLF.

Increased CRLF Take from HCP Potential Future Activities
The HCP is not requesting additional take in the form of mortality, injury, or capture for CRLF from future covered activities including listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), replacement of the safety and education center (CA-43), and dust control activities – new PMRP backdune (CA-44), beyond baseline conditions. As a result, future covered activities would have no impact on CRLF take.

CDPR Public Works Plan Projects

CDPR PWP projects (B, E, and G) would occur outside of CRLF aquatic and upland habitat and would have no impact on CRLF. Oceano Campground Infrastructure Improvement Project (Project D) and North Beach Campground Facility Improvements (Project F) are located adjacent to Meadow Creek, Carpenter Creek, and Oceano Lagoon. CRLF have been observed in the Oceano Lagoon and Oso Flaco Lake. In addition, in 2019, a tadpole observed in Carpenter Creek is presumed to have been a CRLF based upon its characteristics. As a result, improvements at the North Beach Campground or Oceano Campground could result in mortality or injury of dispersing adult and juvenile CRLF. Pismo State Beach Boardwalk (Project H) would occur within suitable upland habitat for CRLF and could cause direct mortality or injury of dispersing adult and juvenile CRLF during construction of the boardwalk. The Oso Flaco Campground and Day Use Project (Project A) could include constructing a pedestrian trail and vegetation buffer around Oso Flaco Lake. Oso Flaco Lake is suitable habitat for CRLF. The Oso Flaco Campground and Day Use Project may include constructing a trail across aquatic habitat at Oso Flaco Lake; therefore, CRLF individuals, tadpoles, and egg masses in aquatic habitat could be impacted. Construction of the Oso Flaco Campground and Day Use Project could also result in mortality of injury of dispersing adult and juvenile CRLF. As part of the project planning process, the PWP projects would be subject to CEQA review, under which the impacts of each project on CRLF would be evaluated and mitigated as needed. CDPR would also seek an amendment to the HCP if CRLF take coverage is needed for a PWP project. As a result, the impact of these projects on CRLF are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to CRLF were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final CCP Environmental Assessment (USFWS 2016). CRLF are known to occur and breed at six marshes and ponds in the NWR. The Guadalupe-Nipomo Dunes NWR Final CCP could result in some impacts to CRLF. However, the NWR CCP would benefit CRLF overall by documenting incidental sightings of CRLF, controlling for feral swine, and controlling invasive plant species. As a result, the impact of this project on CRLF would be beneficial.

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 (MMP). As a result, the impact to CRLF from the Arroyo Grande Creek Channel WMP would be beneficial.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP, would have a significant, adverse impact on CRLF. Furthermore, given the implementation of AMMs, impacts on CRLF from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on CRLF.

Tidewater Goby

HCP Potential Future Covered Activities

Listed Plant Management – Propagation and Outplanting (CA-15), Cable Fence Maintenance – Replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Replacement of the Safety and Education Center (CA-43), Dust Control Activities – New PMRP backdune (CA-44). These activities would not occur within tidewater goby habitat. As a result, no impact would occur.

Increased Tidewater Goby Take from HCP Potential Future Activities
The HCP is not requesting additional take for tidewater goby from future covered activities, including listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), replacement of the safety and education center (CA-43), and dust control activities – new PMRP backdune (CA-44), beyond baseline conditions. No additional take is anticipated from the ten future covered activities due to absence of suitable tidewater goby habitat in the area where these activities occur and/or the implementation of AMMs. As a result, future covered activities would have no impact on tidewater goby take.

CDPR Public Works Plan Projects

None of the CDPR PWP projects (A–H) would occur within or directly adjacent to suitable tidewater goby habitat. As a result, no impacts to tidewater goby or tidewater goby critical habitat are expected to occur.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Tidewater gobies are not known to occur at the NWR (USFWS 2016). As a result, the Guadalupe-Nipomo Dunes NWR Final CCP would have no 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). The Arroyo Grande Creek Channel WMP project area occurs within the Conception Unit for recovery of tidewater goby (USFWS 2005a) and WMP project activities were determined to have the potential to directly and indirectly affect tidewater goby. Pre-construction surveys and relocation, if necessary, were required prior to dewatering associated with the project. In addition, biological monitoring was required for all in-stream work. Additional measures were also required to ensure indirect water-quality effects and sediment were minimized. As a result, the cumulative impact to tidewater goby from the Arroyo Grande Creek Channel WMP would be beneficial.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP, would have a significant, adverse impact on tidewater goby. Furthermore, given the implementation of AMMs, impacts on tidewater goby from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on tidewater goby.

Coast (California) Horned Lizard and Silvery Legless Lizard

HCP Potential Future Covered Activities

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 silvery 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 CDPR's standard practices in the HCP area, pre-construction surveys are required, if determined necessary by a CDPR Environmental Scientist, prior to conducting listed plant management activities in the vegetation islands or other suitable habitat for coast horned lizard and silvery legless lizard to avoid harm and injury to individual lizards. If an individual were observed, activities would be delayed until the individual has moved from the area or a qualified biologist moves the individual from the area. Overall, these activities could create additional vegetated and/or cover habitats for both silvery legless lizard and coast horned lizard; the activities could remove potential non-native predators and, therefore, are beneficial to this species. As a result, impacts on coast horned lizard and silvery legless lizard would be beneficial.

Cable Fence Maintenance – Replacement (CA-28). Cable fencing occurs outside of vegetated areas (i.e., typical coast horned lizard and silvery legless lizard habitat). Although open sand areas are considered suitable upland habitat for coast horned lizard and silvery 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 silvery legless lizard would be negligible.

Grover Beach Lodge and Conference Center (CA-38). Impacts to silvery 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 silvery 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 silvery 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 to silvery legless lizard and coast horned lizard from the Grover Beach Lodge would be minor.

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 silvery 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 silvery legless lizard, and these species could disperse through and be injured or killed by beach construction equipment. However, 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 this activity injuring or killing a coast horned lizard or silvery legless lizard is expected to be low. Therefore, the impact of this activity on coast horned lizard or silvery legless lizard would be minor.

Dust Control Activities – New PMRP backdune (CA-44). Dust control activities could result in injury or mortality of these coast horned lizard and silvery 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 dust control measures; however, these species can be found in open sand areas as they travel and disperse between more suitable habitat areas. These species could also be attracted to areas where dust control measures are implemented (e.g., straw bales, wind fencing, and vegetation); therefore, maintenance of these areas could result in injury or mortality of these species. However, as part of their standard practices, CDPR would conduct pre-construction surveys, as determined to be necessary by a CDPR Environmental Scientist, prior to installing dust control measures to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction survey or during the dust control activities, activities would be delayed until the lizard moves out of harm's way on its own accord and/or a qualified biologist relocates the individual. With implementation of these measures, mortality impacts on California horned lizard and silvery legless lizard would be minor.

Dust control activities would permanently alter about 350 acres of habitat for coast horned lizard and silvery legless lizard in the backdunes through planting of vegetation and placement of dust control devices and monitoring equipment. Although, dust control measures would ultimately create additional vegetated and/or cover habitats for both silvery legless lizard and California horned lizard and would, therefore, be beneficial to this species. As a result, this impact would be beneficial.

CDPR Public Works Plan Projects

CDPR PWP projects (B, E, and G) would not occur within suitable coast horned lizard or silvery legless lizard habitat. Therefore, no impacts to these species from PWP Projects B, E, and G would occur. Silvery legless lizards have been observed in the designated campgrounds, and silvery legless lizard and coast horned lizard could occur in the dune scrub or other vegetated habitats throughout the HCP area. As a result, silvery legless lizard and coast horned lizard could be injured or killed during construction of the Oso Flaco Lake Campground and Day Use Project (Project A), Oceano Campground Infrastructure Improvement Project (Project D), North Beach Campground Facility Improvement Project (Project F), and Pismo State Beach Boardwalk Project (Project H). As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze and mitigate as appropriate the impacts of each project on silvery legless lizard and coast horned lizard. As a result, the impact of these projects on these species are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Coast horned lizards are not known to occur in the Guadalupe-Nipomo Dunes NWR (USFWS 2016). Silvery legless lizards are known to occur in the NWR (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some impacts to silvery legless lizard. However, the NWR CCP would benefit silvery legless lizard overall by controlling for feral swine and controlling invasive plant species. As a result, the impact of this project on silvery legless lizard would be beneficial.

Arroyo Grande Creek Channel Waterway Management Plan

Silvery 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 silvery legless lizard is not present within the project area. As a result, no impact to silvery legless lizard from this activity would occur.

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 impact coast horned lizard directly or indirectly within suitable habitat. Biological monitoring and relocation, if necessary, were required prior to construction activities. As a result, the impact to coast horned lizard from the Arroyo Grande Creek Channel WMP would be minor.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on coast horned lizard or silvery legless lizard. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on coast horned lizard and silvery legless lizard from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on coast horned lizard and silvery legless lizard.

Western Spadefoot Toad

HCP Potential Future Covered Activities

The impacts to western spadefoot toad from future activities, including listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), replacement of the safety and education center (CA-43), dust control activities – new PMRP backdune (CA-44) are expected to be similar to CRLF above. However, western spadefoot toad is thought to be very uncommon in the HCP area; therefore, this species is less likely to be impacted by covered activities than CRLF. As a result, impacts to western spadefoot toad are not expected and would be negligible.

CDPR Public Works Plan Projects

CDPR PWP projects (B–G) would occur outside of western spadefoot toad aquatic and upland habitat and would have no impact on western spadefoot toad. Pismo State Beach Boardwalk (Project H) would occur within suitable upland habitat for western spadefoot toad and could cause direct mortality or injury of dispersing or burrowing adult and juvenile western spadefoot toad during construction of the boardwalk. The Oso Flaco Campground and Day Use Project (Project A) could include constructing a pedestrian trail and vegetation buffer around Oso Flaco Lake. Oso Flaco Lake is not considered suitable breeding habitat for western spadefoot toad; therefore, Oso Flaco Campground and Day Use Project would not directly impact western spadefoot toad tadpoles and egg masses. Construction of the Oso Flaco Campground and Day Use Project could result in mortality of injury of dispersing or burrowing adult and juvenile western spadefoot toad. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze and mitigate as appropriate the impacts of each project on western spadefoot toad. As a result, the impact of these projects on western spadefoot toad are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Western spadefoot toad is not known to occur within the NWR (USFWS 2016). As a result, the Guadalupe-Nipomo Dunes NWR Final CCP would have no impact on western spadefoot toad.

Arroyo Grande Creek Channel Waterway Management Plan

Western spadefoot toad'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 western spadefoot toad habitat is not present within the project area. As a result, no impact from this activity would occur.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on western spadefoot toad. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on western spadefoot toad from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on western spadefoot toad.

Western Pond Turtle

HCP Potential Future Covered Activities

Cable Fence Maintenance – Replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Replacement of the Safety and Education Center (CA-43), and Dust Control Activities – New PMRP backdune (CA-44). These activities would not occur within WPT habitat or areas where WPT have been observed. As a result, no impact would occur.

Listed Plant Management – Propagation and Outplanting (CA-15). Any propagation or outplanting of marsh sandwort and Gambel's watercress at Oso Flaco Lake could temporarily affect WPT by disturbing WPT if present. However, as part of CDPR's standard practices in the HCP area, pre-construction surveys are required, if determined necessary by a CDPR Environmental Scientist, prior to conducting listed plant management activities in the suitable habitat for WPT to avoid harm and injury to individual turtles. If an individual is observed, activities would be delayed until the individual has moved from the area or appropriate AMMs (e.g., relocation or biological monitoring) are in place. As a result, impacts would be negligible.

CDPR Public Works Plan Projects

CDPR PWP projects (B–H) would occur outside of WPT aquatic and upland habitat and would have no impact on WPT. Oso Flaco Campground and Day Use Project (Project A) would include constructing a pedestrian trail and vegetation buffer around Oso Flaco Lake. Oso Flaco Campground and Day Use Project could include a trail across aquatic habitat at Oso Flaco Lake; therefore, WPT individuals could be directly impacted by construction or pedestrian activities associated with the project. In addition, construction and pedestrian activities at Oso Flaco Lake associated with this PWP project could disturb WPT individuals causing them to leave their basking sites or cover. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze the impacts of

each project on WPT. As a result, the impact of these projects on WPT are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

WPT is known to occur in the NWR; however, it is suspected that a large population is not present (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some impacts to WPT. However, the NWR CCP could benefit WPT overall by documenting incidental sightings, controlling for feral swine, and controlling invasive plant species. As a result, the impact of this project on WPT would be beneficial.

Arroyo Grande Creek Channel Waterway Management Plan

Impacts to WPT 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 suitable habitat for WPT, and project activities were determined to have the potential to directly or indirectly impact WPT. Biological monitoring and relocation, if necessary, were required prior to construction activities. As a result, the impact to WPT from the Arroyo Grande Creek Channel WMP would be minor.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on WPT. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on WPT from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on WPT.

Western Burrowing Owl

HCP Potential Future Covered Activities

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, pre-construction surveys are conducted, as determined to be necessary by CDPR Environmental Scientist staff, prior to listed plant management activities. If a wintering burrowing owl is observed, activities would be delayed until the individual has moved from the area or until appropriate AMMs (e.g., biological monitoring) are in place. As a result, impacts to western burrowing owl would be negligible.

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 to western burrowing owl from the Grover Beach Lodge would occur.

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 owl is uncommon with the HCP area and has rarely been observed within the open riding area. In addition, as part of CDPR's standard practices in the HCP area, pre-construction surveys would be conducted prior to construction, as determined to be necessary by a CDPR Environmental Scientist, to avoid harm and injury to individual burrowing owls. 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 AMMs are in place (e.g., a no-disturbance buffer). As a result, the impacts to western burrowing owl from replacement of the safety and education center are not expected.

Dust Control Activities – New PMRP backdune (CA-44). Dust control activities in the backdunes 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 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, dust control 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 their standard practices, CDPR would conduct pre-construction surveys for burrowing owl, if determined to be necessary by a CDPR Environmental Scientist, to avoid disturbing wintering burrowing owl. If an individual is observed, activities would be delayed or appropriate AMMs (e.g., no-disturbance buffer) would be implemented. As a result, impacts would be negligible.

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 could increase the amount of vegetative cover. Overall, the habitat impacts are expected to be negligible.

CDPR Public Works Plan Projects

CDPR PWP projects (B–D and F–G) 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 and Oso Flaco Lake, as a result Oso Flaco Campground and Day Use Project (Project A), Pismo State Beach Boardwalk (Project H), and Grand Avenue and Pier Avenue Kiosks (Project E) could disturb wintering burrowing owl and ultimately cause them to move from wintering cover. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze the impacts of each project on burrowing owl. As a result, the impact of these projects on burrowing owl are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Burrowing owls have been observed in the NWR (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some impacts to burrowing owl, including disturbance and flushing. However, the NWR CCP would benefit burrowing owl overall by

controlling for feral swine and controlling invasive plant species. As a result, the cumulative impact of this project on western burrowing owl would be beneficial.

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. As a result, no impact from this activity would occur.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on western burrowing owl. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on western burrowing owl from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on western burrowing owl.

Nesting Birds

HCP Potential Future Covered Activities

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. As part of their standard practice, CDPR would conduct a nesting bird survey prior to conducting the activity if any activities are determined by a CDPR Environmental Scientist to have potential to impact nesting birds. If a nest is observed, activities would be delayed until appropriate AMMs are in place. AMMs include establishing a no-disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. As a result, the impact from this activity on nesting birds would be negligible.

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, impact to nesting birds from the Grover Beach Lodge would be negligible.

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, would not be 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., California horned lark, shorebirds) near the safety and education center. However, the safety and education center is located within an area open to recreation that is subject to frequent disturbance; therefore, it is unlikely birds would nest there. In addition, as part of CDPR's standard practices, 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 Environmental Scientist, 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 AMMs are in place. AMMs would include a no-disturbance buffer, as determined by CDPR Environmental Scientist staff, and/or biological monitoring. Therefore, the impact of this activity on nesting birds would be negligible.

Dust Control Activities – New PMRP backdune (CA-44). Dust control activities in the backdune would not impact aquatic or riparian nesting birds, since these activities do not occur in aquatic or riparian habitat. Dust control activities can result in destruction of a bird nest if they are present within the work area. Dust control activities can also disturb nearby nesting birds and drive adult birds from the nest and, ultimately, lead to neglect or abandonment of eggs or chicks. However, dust control activities would be conducted outside the avian nesting season (September 16 to February 28/29) to the extent feasible. If 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, impact on nesting birds is negligible.

Planting 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, installing monitoring equipment could provide nesting habitat for some birds, including raptors. As a result, the habitat impacts are minor.

CDPR Public Works Plan Projects

Nesting birds could occur anywhere in the HCP area. As a result, CDPR PWP projects (A–H) could impact nesting birds if they are constructed during the nesting bird season (generally March 1 through September 15). If trees or shrubs are removed as part of the project, the project 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. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze and mitigate as appropriate the impacts of each project on nesting birds. As a result, the impact of these projects on nesting birds are expected to be minor to moderate depending on the location and duration of activities.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to wildlife, including nesting birds, were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final CCP Environmental Assessment (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some minor daytime disturbances and flushing of nesting birds; however, many birds are anticipated to be habituated to some level of human disturbance on the NWR. In addition, the NWR CCP would ultimately benefit nesting birds by controlling for feral swine, conducting avian and mammalian predator

management, restricting public access on the NWR during the CLTE and SNPL nesting season (which also coincides with many other birds nesting season), and controlling invasive plant species. As a result, the impact of this project on nesting birds would be beneficial.

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 impact nesting birds directly or indirectly. 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. As a result, the impact to nesting birds from the Arroyo Grande Creek Channel WMP would be negligible.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on nesting birds. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on nesting birds from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on nesting birds.

Bats

HCP Potential Future Covered Activities

Future activities not included in the ITP including listed plant management – propagation and outplanting (CA-15), cable fence maintenance – replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), replacement of the safety and education center (CA-43), and dust control activities – new PMRP backdunes (CA-44) would not adversely affect bats or bat roosting habitat. As a result, no impact would occur.

CDPR Public Works Plan Projects

CDPR PWP projects (A–H) are not expected to remove large roost trees and would not be conducted at night. As a result, PWP projects are expected to have no impact on bats or bat roosting habitat.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

The Guadalupe-Nipomo Dunes NWR Final CCP would have no impact on bats.

Arroyo Grande Creek Channel Waterway Management Plan

Impacts to bats were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). Bats were determined to have potential to roost under bridges in the project area, and replacement of the Union Pacific Railroad bridge was determined to have the potential to impact roosting bats directly or indirectly. Pre-construction surveys were required prior to construction activities and bat exclusion (e.g., wire mesh, spray foam, or fabric placement) was required if a roost was observed or if construction occurred in the maternity roosting season (typically around April 15). As a

result, the impact to roosting bats from the Arroyo Grande Creek Channel WMP would be negligible.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities would impact bats. As a result, the ITP covered activities when combined with foreseeable future projects identified above, would not have a significant cumulative impact on bats.

American Badger

HCP Potential Future Covered Activities

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 CDPR's standard practice, pre-construction surveys would be conducted, as determined to be necessary by CDPR Environmental Scientist staff, 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 AMMs are in place (e.g., a no-disturbance buffer). With implementation of this measure, impact on American badger would be negligible.

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 to American badger from the Grover Beach Lodge would occur.

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, this activity would have no impact on American badger.

Dust Control Activities – New PMRP backdunes (CA-44). Although unlikely because American badgers are uncommon in the HCP area, 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 their standard practices, CDPR would conduct pre-construction surveys for special-status species (e.g., American badger), as determined to be necessary by a CDPR Environmental Scientist, to reduce impacts to American badgers. As a result, impacts would be negligible.

Planting vegetation associated with dust control activities within the HCP area, especially within the backdune areas, most likely has a beneficial impact on American badger by increasing the amount of suitable vegetated dune habitat in the HCP area.

CDPR Public Works Plan Projects

CDPR PWP projects (B–G) would not be expected to impact American badger since limited suitable habitat exists within these locations. 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. As a result, American badger could be impacted during construction and use of the Oso Flaco Campground and Day Use Project (Project A) and Pismo State Beach boardwalk (Project H). Specifically, these projects could result in disturbance to American badger and ultimately result in burrow abandonment and relocation. However, this is unlikely, since the track observation in 2019 is the first time badger tracks or any other sign have been observed in the open riding area and/or vegetation islands, and American badgers are expected to avoid areas where a high level of recreation activity occurs. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze and mitigate as appropriate the impacts of each project on American badger. As a result, the impact of these projects on American badger are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

American badger is not known to occur within the NWR (USFWS 2016). As a result, the Guadalupe-Nipomo Dunes NWR Final CCP would have no impact on American badger.

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

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on American badger. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on American badger from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on American badger.

Plants

HCP Potential Future Covered Activities

<u>Listed Plant Monitoring – Propagation and Outplanting (CA-15)</u>. Propagating listed species, including marsh sandwort, Nipomo Mesa lupine, Gambel's watercress, La Graciosa thistle, surf thistle, and beach spectaclepod, 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 or other special-status species growing within the same habitat could be affected during these activities. Specifically, a 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 reduce these impacts, CDPR conducts regular surveys for the listed plant species as part of HMS implementation. In addition, CDPR staff conducting propagation activities would be staff who are familiar with the special-status plants in the HCP area and would limit the amount of time they spend in known occupied habitat to reduce the risk of trampling a special-status plant species. As a result, effects from these activities are beneficial.

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 to 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. Surf thistle, dune larkspur, beach spectaclepod, and Nipomo Mesa lupine were determined to have potential to occur within the project area. In addition, Blochman's groundsel and Blochman's leafy daisy were found within the project area. Special-status plants could be crushed or removed during construction of the lodge and conference center. The current 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 negligible.

Replacement of the Safety and Education Center (CA-43). The safety and education center would be construction 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 to special-status plants would occur.

Dust Control Activities – New PMRP backdunes (CA-44). Dust control activities in the backdunes have the potential to impact special-status plants directly and indirectly, including by altering habitat (e.g., changing species composition as a result of altered wind, sand transport, or moisture content). The potential magnitude of impacts on special-status plants varies depending on where activities take place. The specific location of future dust control measures in the backdunes is not known at this time. In general, the potential magnitude of impacts on special-status plants are lowest when dust control activities take place in open sand habitat because these areas support little to no dune vegetation. As program activities approach the edge of vegetation islands and other vegetated areas, such as within the Phillips 66 Leasehold area, the potential to impact special-status plants increases. However, as part of their standard practices, CDPR would conduct a pre-activity survey for special-status plants, if determined to be necessary by a CDPR Environmental Scientist. Any plants observed would be flagged and avoided. Overall, planting of 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 would be beneficial.

CDPR Public Works Plan Projects

CDPR PWP projects (Projects B, and D–G) would not occur within suitable special-status plant habitat. Oso Flaco Campground and Day Use Project (Project A) and Pismo State Beach Boardwalk Project (Project H) could occur in areas where rare plants, including, but

not limited to, marsh sandwort, Gambel's watercress, red sand verbena, Nuttall's milkvetch, Monterey Coast paintbrush, surf thistle, La Graciosa thistle, beach spectaclepod, Blochman's leafy daisy, suffrutescent wallflower, fuzzy prickly phlox, crisp monardella, San Luis Obispo monardella, and/or California spineflower have been found. Special-status plants could be crushed or removed during construction of these projects. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze and mitigate as appropriate the impacts of each project on special-status plants. AMMs would be proposed to reduce any potential impacts, as necessary. As a result, the impact of these projects on special-status plants are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to special-status plants were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final CCP Environmental Assessment (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some trampling of vegetation, but these impacts would be limited and temporary. However, the NWR CCP would benefit listed plants and other special-status species overall by monitoring for listed plants and recording opportunistic sightings of other native plants, controlling for feral swine, fencing Myrtle and Colorada ponds, and controlling invasive plant species. In addition, seed collection and outplanting of La Graciosa thistle, marsh sandwort, and Gambel's watercress would be conducted intermittently when staff time permits. As a result, the impact of this project on special-status plants would be beneficial.

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 are were not expected to occur within the project area; however, some suitable habitat for marsh sandwort, Gambel's watercress, and other special-status species is present in the project area. As a result, project activities were determined to have potential to impact special-status plants. Updated floristic surveys were required prior to construction and all special-status plants observed were required to be fenced or flagged for avoidance. As a result, the impact to special-status plants from the Arroyo Grande Creek Channel WMP would be negligible.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on special-status plants. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on special-status plants from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on special-status plants.

Wintering/Migratory Birds

HCP Potential Future Covered Activities

<u>Listed Plant Management – Propagation and Outplanting (CA-15), Cable Fence Maintenance – Replacement (CA-28), Grover Beach Lodge and Conference Center (CA-38), Replacement of the Safety and Education Center (CA-43)</u>. 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 negligible.

Dust Control Activities – New PMRP backdunes (CA-44). Dust control activities could temporarily displace foraging or wintering birds, altering their normal behavior patterns. Dust control activities could also displace birds from safe roosting locations and move them into areas where they are vulnerable to vehicle strike. However, most wintering/migratory birds occur along shoreline areas and/or near aquatic habitat and not in the backdunes. Most birds also fly out of harm's way to another safe location; therefore, this vehicle strike impact would not occur frequently. In addition, most dust control activities would be localized and short in duration. As a result, impacts would be negligible.

CDPR Public Works Plan Projects

CDPR PWP projects (A–H) would not result in injury or mortality of foraging/migratory birds. PWP projects (A–H) 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 are expected to be negligible.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Guadalupe-Nipomo Dunes NWR Final CCP 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. As a result, the impacts to foraging/migratory birds would be negligible.

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. As a result, the impacts to foraging/migratory birds would be negligible.

Conclusion

As described above, none of the future projects would have a significant impact on wintering/migratory birds. As a result, the ITP covered activities when combined with foreseeable future projects identified above, would not have a significant cumulative impact on wintering/migratory birds.

Sensitive Habitats

HCP Potential Future Covered Activities

Listed Plant Management – Propagation and Outplanting (CA-15). Impacts to aquatic sensitive natural communities from this project are discussed below under jurisdictional waters. Any propagation and outplanting would benefit sensitive natural communities by decreasing the number of non-native plants and increasing the number of native and rare plant populations in in the HCP area. As a result, impacts to upland sensitive natural vegetation communities would be beneficial.

Cable Fence Maintenance – Replacement (CA-28). Replacement of the cable fence would occur within open sand areas within SNPL critical habitat. This covered activity area may also be considered an ESHA by the CCC. 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 natural communities/ESHAs would be negligible.

Grover Beach Lodge and Conference Center (CA-38). An EIR has been prepared for the Grover Beach Lodge and Conference Center (Project C) project area. The 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 effect sensitive natural communities/ESHAs in the project area by removing vegetation within these communities, creating erosion, and/or introducing non-native, invasive species. The current 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 minor.

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 by the CCC. Replacement of the safety and education center would occur in the same location; therefore, new permanent impacts from this activity would not occur. In addition, CDPR Environmental Scientist staff would ensure no permanent impacts occur to native vegetation in Pavilion Hill by flagging/fencing the area, if necessary. As a result, permanent impacts to sensitive vegetation communities would be negligible.

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, as part of their standard practices, CDPR would implement BMPs to avoid introducing invasive species during construction activities if activities could impact vegetation, including at Pavilion Hill. As a result, impacts to sensitive vegetation communities would be minor.

Dust Control Activities – New PMRP backdune (CA-44). Dust control activities have the potential to impact sensitive natural vegetation communities directly and indirectly, including by altering habitat (e.g., changing species composition as a result of altered wind, sand transport, or moisture content). The potential magnitude of impacts on sensitive vegetation communities varies depending on where activities take place. The specific location of future dust control measures in the backdunes is not known at this time but could occur within ESHA. In general, the potential magnitude of impacts on sensitive vegetation communities are lowest when dust control activities take place in open sand habitat because these areas support little to no dune vegetation and any impacts to this habitat would not be significant. As program activities approach the edge of vegetation islands and other vegetated areas, such as the Phillips 66 Leasehold area, the potential to impact sensitive plant communities increases. Some dust control activities (e.g., deployment of temporary monitoring sites) would also require a minor amount (e.g., less than 0.5 acre) of native vegetation removal. However, as part of their standard practices, CDPR would implement BMPs during construction activities, as necessary, to reduce impacts. These BMPs could include fencing off adjacent areas, erosion control, and/or biological monitoring. In addition, new dust control activities identified in the Draft PRMP (CDPR 2019) are subject to environmental

review, which could include measures to reduce or mitigate impacts to sensitive natural vegetation communities. As a result, impacts to sensitive vegetation communities would be minor.

CDPR Public Works Plan Projects

CDPR PWP projects (B and D–G) do not occur within a sensitive natural community. Therefore, no impact to sensitive natural communities would occur from these PWP projects. Oso Flaco Campground and Day Use Project (Project A) and Pismo State Beach Boardwalk (Project H) contain sensitive natural communities, including, but not limited to central dune scrub, central foredunes, wetlands, and riparian woodland habitat. ESHAs, including riparian woodland, freshwater lakes, sand dunes, and wetlands are also present within or adjacent to the project areas. Construction and use of these projects could directly and indirectly effect sensitive natural communities/ESHAs in the project area by removing vegetation within these communities, creating erosion, and/or introducing non-native, invasive species. As part of the project planning process, the PWP projects would be subject to CEQA review, which would analyze and mitigate as appropriate the impacts of each project on sensitive natural communities/ESHAs. As a result, the impact of these projects on sensitive natural communities/ESHAs are expected to be minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to habitats, including sensitive natural communities/ESHAs, were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final CCP Environmental Assessment (USFWS 2016). The Guadalupe-Nipomo Dunes NWR Final CCP could result in some trampling of vegetation and or introduction of non-native species, but these impacts would be limited and/or temporary. Overall, the NWR CCP would benefit native habitats by controlling for feral swine, restoring native habitat, fencing Myrtle and Colorada ponds, and controlling invasive plant species. In addition, some platforms have been installed in wetlands areas to direct visitation in these areas. As a result, the impact of this project on sensitive natural communities/ESHAs would be beneficial.

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 to sensitive natural communities and ESHAs in the project area are discussed in below under jurisdictional waters.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on sensitive natural vegetation communities. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on sensitive natural vegetation communities from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on sensitive natural vegetation communities.

Wildlife Movement and Nursery Sites

HCP Potential Future Covered Activities

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 negligible.

Cable Fence Maintenance – Replacement (CA-28). The cable fence replacement would be conducted outside the SNPL and CLTE breeding season; therefore, cable fence replacement would have no impact on a nursery site. The cable fence does not block wildlife movement. Replacement of the cable fence 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 is minor.

Grover Beach Lodge and Conference Center (CA-38). The Grover Beach Lodge and Conference Center is not located in a nursery site; therefore, no impacts to a nursery site would occur. 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 would be minor.

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. 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 is negligible to minor.

Dust Control Activities – New PMRP Backdune (CA-44). New PMRP dust control activities in backdune areas would not occur within an area known to be used for breeding or rearing young; therefore, no impacts to a potential nursery site would occur. 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 and temporary monitoring equipment would not represent a substantial barrier to wildlife migration or movement. As a result, impacts to wildlife movement and corridors would be minor.

CDPR Public Works Plan Projects

CDPR PWP projects (B–F) are located in already developed areas and would have no impact wildlife movement or potential nursery sites. PWP projects (A, G, and H) could result in temporary disruption of wildlife movement during project construction by deterring them from migrating through the area. However, these projects would not be expected to result in a new permanent wildlife barrier. As part of the project planning process, the PWP projects would be subject to a separate CEQA review, which would analyze and mitigate as appropriate the impacts of each project on wildlife movement and nursery sites. As a result, the impact of these projects on wildlife movement and nursery sites are expected to be negligible to minor.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Guadalupe-Nipomo Dunes NWR Final CCP actions are would not impede a wildlife nursery site. Guadalupe-Nipomo Dunes NWR Final CCP actions could result in temporary disruption of wildlife movement by deterring them from migrating through the area. However, the NWR would continue to protect and create native habitat and would not create a permanent barrier to migration. As a result, impacts would be negligible.

Arroyo Grande Creek Channel Waterway Management Plan

Arroyo Grande Creek Channel WMP actions could result in temporary disruption of wildlife movement by deterring them from migrating through the area. However, the WMP would be implemented to improve habitat in Arroyo Grande Creek, including fish habitat for breeding and rearing young, and would not create a permanent barrier to migration or impede a nursery site. As a result, impacts would be negligible.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities, would have a significant, adverse impact on wildlife movement or impede a potential nursery site. Furthermore, given the implementation of AMMs included in the HCP and CDPR's standard practices, impacts on wildlife movement and any breeding or rearing of young from the proposed new ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on wildlife movement or nursery sites.

Jurisdictional Waters

HCP Potential Future Covered Activities

Listed Plant Management – Propagation and Outplanting (CA-15). Listed plant propagation and outplanting could involve propagation and outplanting of Gambel's watercress and marsh sandwort, which occur within Oso Flaco Lake. However, all activities would be conducted carefully on foot and by hand. As a result, impacts to jurisdictional waters would be negligible.

Cable Fence Maintenance – Replacement (CA-28). Cable fence replacement would not occur below the mean highwater mark. As a result, no impact to jurisdictional waters would occur.

Grover Beach Lodge and Conference Center (CA-38). The impact to 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 jurisdictional waters would be beneficial.

Replacement of the Safety and Education Center (CA-43). The safety and education center would not be located within jurisdictional waters and no impact would occur.

Dust Control Activities – New PMRP (CA-44). Dust control activities associated with the PMRP would not be located within jurisdictional waters and no impact would occur.

CDPR Public Works Plan Projects

CDPR PWP projects (A–H) would not occur within aquatic habitats. As a result, no impacts to jurisdictional resources are expected to occur.

Guadalupe-Nipomo Dunes National Wildlife Refuge Final Comprehensive Conservation Plan

Impacts to jurisdictional waters were analyzed as part of the Guadalupe-Nipomo Dunes NWR Final CCP Environmental Assessment (USFWS 2016). NWR management activities would benefit wildlife and habitat are not expected to impact coastal water quality. Vegetation control in the coastal dune habitat, particularly manual removal of vegetation, could result in minor changes to the hydrology of the NWR, but because it is a coastal dune environment, the sand is already naturally shifting. Vegetation control in and along wetland areas may result in minor short-term negative impact to water quality from increased erosion. Use of herbicide would not be expected to affect water quality, and only those herbicides approved for the aquatic environment would be permitted for use when applications are to occur near wetland areas. Most herbicide application currently would occur via backpack sprayer, which is finely targeted at each plant with little affect to surface water sources. Herbicide application would also not be conducted during inclement weather (e.g., wind, precipitation). As a result, impacts to jurisdictional waters from the Guadalupe-Nipomo Dunes NWR Final CCP would be minor.

Arroyo Grande Creek Channel Waterway Management Plan

Impacts to jurisdictional waters were analyzed as part of the Arroyo Grande Creek Channel WMP EIR (SWCA Environmental Consultants 2010). The project was determined to have potential to impact CDFW jurisdictional areas (including riparian habitat), USACE and RWQCB jurisdictional wetlands, and CCC jurisdictional areas. However, the project would be subject to review and permitting by the USACE and RWQCB under the Section 404/401 of the Clean Water Act, the CDFW under Section 1600 of the California Fish and Game Code, and/or the CCC under the California Coastal Act. As a result, the impact to jurisdictional waters from the Arroyo Grande Creek Channel WMP would be minor.

Conclusion

As described above, none of the future projects, including potential future HCP covered activities when taking into account the AMMs included in the HCP and CDPR's standard practices, would have a significant, adverse impact on jurisdictional waters. Furthermore, given the implementation of AMMs and CDPR's standard practices, impacts on jurisdictional waters from the ITP covered activities, when combined with foreseeable future projects identified above, would not be significant. As a result, the contribution of the proposed ITP covered activities would not have a significant cumulative impact on jurisdictional waters.

Oceano Dunes District
Habitat Conservation Plan EA

Appendix F: Scoping Report

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SCOPING REPORT

For the

Issuance of an Incidental Take Permit for the Draft Habitat Conservation Plan for the California Department of Parks and Recreation Oceano Dunes District, San Luis Obispo County, California

Prepared by Lena Chang, U.S. Fish and Wildlife Service
Ventura Fish and Wildlife Office

April 2, 2019

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ACRONYMS AND ABBREVIATIONS

Act	Endangered Species Act of 1973, as amended
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CDPR	California Department of Parks and Recreation
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CLT	California Least Tern
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
ODSVRA	Oceano Dunes State Vehicular Recreation Area
OHV	Off Highway Vehicle
OPR	California Governor's Office of Planning and Research
ROD	Record of Decision
USFWS	U.S. Fish and Wildlife Service
WSP	Western Snowy Plover

1.0 INTRODUCTION

This Preliminary Scoping Report summarizes the U.S. Fish and Wildlife Service's (Service) public and agency efforts conducted during the National Environmental Policy Act (NEPA) scoping period for the Draft Habitat Conservation Plan (HCP) for the California Department of Parks and Recreation Oceano Dunes District (State Parks, applicant), San Luis Obispo County, California. The draft HCP is required under the Endangered Species Act of 1973, as amended (Act), for the Service's proposed issuance of an incidental take permit (ITP) to State Parks.

The scoping process is the first step in gathering data and input to use during later phases of the NEPA analysis. The scoping process includes stakeholder engagement, including members of the public and local, regional, state, and federal agencies. (See Public Scoping) Based on several factors discussed further in the Comments on NEPA Analysis section below, we will prepare a draft environmental assessment (EA) for our proposed action. Our proposed action is issuance of an ITP authorizing incidental take that would result from the covered activities in the draft HCP.

1.1 Project Background

The draft HCP is in development and will be implemented by State Parks and must meet the requirements of section 10(a)(2)(A) of the Act by providing measures to minimize and mitigate the effects of the potential incidental take of covered species to the maximum extent practicable. The HCP area covers 5,005 acres of Pismo State Beach, Pismo Lake, and Oceano Dunes State Vehicular Recreation Area (Oceano Dunes, ODSVRA). The proposed permit term is 25 years.

Covered activities in the proposed HCP are described in the Notice of Intent (NOI) (Appendix A). State Parks includes the following 10 Federal and State listed species as covered species in their draft HCP.[1]

Federally Endangered: *California least tern (*Sternula antillarum browni*), *tidewater goby (*Eucyclogobius newberryi*), Gambel's watercress (*Rorippa gambelii*), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), marsh sandwort (*Arenaria paludicola*), Nipomo Mesa lupine (*Lupinus nipomensis*)

Federally Threatened: *western snowy plover (*Charadrius nivosus nivosus*), *California red-legged frog (*Rana draytonii*)

State Listed: surf thistle (*Cirsium rhothophilum*), beach spectaclepod (*Dithyrea maritime*)

2.0 PUBLIC SCOPING

In January of 2018, the Service initiated a public scoping process to engage the public and Federal, Tribal, State, and local governments in the identification of issues and concerns, potential impacts, and possible alternatives to the proposed action.

[1] *State Parks is seeking incidental take authorization for the four covered animal species

2.1 Public Scoping Meeting Notification

On January 10, 2018, the Service issued a press release to inform the public of an open house to meet with Service and State Parks staff and provide input on the draft HCP and our proposed issuance of an ITP. The press release was distributed via electronic mail (email) and was posted on the Ventura Fish and Wildlife Office's website at https://www.fws.gov/ventura/.

2.2 Notice of Intent

On January 11, 2018, the NOI was published in the Federal Register to announce the initiation of a 60-day comment period for a draft environmental analysis [either an environmental assessment (EA) or an environmental impact statement (EIS)] for our proposed action to issue an ITP authorizing take that would result from the covered activities in the draft HCP. The NOI provided a background of the proposed action, information on how to submit comments, dates and times of scoping meetings, and contact information.

2.3 Public Scoping Meeting

On February 7, 2018, a public scoping meeting was held from 6:00 p.m. to 8:00 p.m. at Ramona Garden Park in Grover Beach, California. The meeting included an overview presentation of the proposed action given jointly by State Parks and Service staff members. A question and answer session followed. Verbal input from the public was documented. In addition, comment cards were available for attendees to leave written comments.

2.4 Public Comments Summary

Tables 1 through 4 summarize comments received during the January 11 through March 12 comment period in 2018, including comments and questions posed during the February 7, 2018 public scoping meeting.

Table 1. Form letter emails

FORM EMAILS	
COMMENTER	**COMMENT**
2,050 emails from the public utilizing this format. Fewer than 100 of those included personal comments to the form content.	• Please protect the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area. • HCP cannot include any decrease in protections for nesting birds. • Environmental review must provide a clear proposed action and a reasonable slate of alternatives to protect imperiled wildlife and the health of nearby communities. • Reducing protective fencing set aside for nesting birds in order to increase areas for off-road vehicles will harm nesting and breeding birds and should not be included. • State Parks needs to address air-quality issues from OHV use • A State Natural Communities Conservation Plan is needed to ensure that any impacts to snowy plovers, least terns and other protected species are fully offset.

Table 2. Unique emails

UNIQUE EMAILS	
COMMENTER	**COMMENTS**
Dr. June Gill	• Appreciates State Parks moving forward with HCP • HCP must provide conservation toward recovery, not just survival • HCP should not reduce protections for nesting birds • Increased recreation will harm birds and should not be included
Rachel Toti	• Eliminate truck jumping events and large events of all kinds. • Provide a bridge over the Arroyo Grande creek when it is connected to the ocean to protect tidewater goby, steelhead trout and other aquatic animals. • Eliminate night riding as this further disturbs wildlife and birds trying to rest or which hunt at night. • Decrease the intensity of use at the park as it is overcrowded much of the time. • Enforce the protection of all wildlife, especially the shorebirds which are frightened by vehicles when driving through. • Keep the western snowy plover/California least tern exclosure up year-round to protect the birds wintering in this area. This would also protect the vegetation which is run over by vehicles as soon as the fencing comes down. • Give citations to persons intentionally running over vegetation.

Table 3. Unique letters

UNIQUE LETTERS	
COMMENTER	**COMMENT**
Jason Gerdes, Environmental Protection Agency	▪ Requests a hard copy of the draft analysis NEPA review needs: • Clear purpose and need and rationale and in-depth alternatives analysis (including options of the Service's jurisdiction) ▪ Scope of Analysis and integration with permitting and other projects ▪ Impact analysis on biological resources, habitat, wildlife ▪ Invasive species management and restoration ▪ Effects to water resources, Clean Water Act coordination ▪ Air Quality assessment ▪ Adaptive management, project future changes ▪ Potentially a programmatic EIS to be tiered for project specific NEPA analysis ▪ Cumulative impacts ▪ Consultation with Tribal Governments ▪ Environmental Justice evaluation ▪ Coordination with other land use planning activities
Babak Naficy, Sierra Club	▪ HCP must ensure both the survival and recovery of covered species and critical habitat ▪ HCP and environmental review must address recovery of all covered species, including south-central California Coast steelhead

	▪ The proposed alternative that would reduce current nesting and breeding snowy plover and least tern habitat must be eliminated from further consideration; instead, the Service should consider expanding the protected area and making the protection year-round. ▪ HCP and environmental review must appropriately address California least tern as a Fully Protected species. ▪ HCP must address water quality and water flow associated with the Oso Flaco Lake and Creek and the Arroyo Grande Creek and lagoon. ▪ HCP should analyze CDPR's currently proposed and foreseeable dust mitigation activities (for significant particulate matter (PM 10 and 2.5) pollution downwind of the park on the Nipomo Mesa).
Kevin Kahn, CA Coastal Commission	▪ Not clear how USFWS/State Parks intends to address the issues associated with the not yet finalized aspects of its operation that are only temporarily authorized under the Coastal Development Permit, including Park access and overall use limits. ▪ If State Parks' Public Works Plan (currently under development) will replace current operations in the CDP, these changes will need to be resolved. ▪ the HCP and any CEQA/NEPA documents based on evaluating it will need to reflect ODSVRA's transitory reality, including that the current configuration is interim and potentially subject to significant change. ▪ Changes in access and staging/riding areas could/would change impacts to species. How will these be addressed in the HCP and CEQA/NEPA? ▪ Evaluate impacts of "no net loss of riding area". ▪ The alternatives are inadequate. One maintains status quo, other reduces protections. Strongly suggest additional alternatives. ▪ HCP needs specific strategies to address WSP death and management and should reduce take; the general approach to WSP and CLT management should be focused not just on protection of current populations of these species, but designed to provide optimal conditions for these species over time. ▪ HCP will need to consider aquatic/fish species in Arroyo Grande Creek (including steelhead). ▪ HCP and CEQA/NEPA must specify enforcement provisions, success and non-compliance criteria, and mitigation for take or adverse impacts not covered.
Tom Roth, Attorney, Friends of Oceano Dunes	▪ Friends contends that the scope of the HCP requires a full EIS analysis in order to comply with NEPA. The HCP and any incidental take permit would be a major federal action requiring an EIS. Emphasizes need for disclosure. ▪ Gives examples of HCP projects of similar scope and size for which an EIS has been prepared. ▪ HCP must comply with the lawsuit settlement dated April 2003, requiring State Parks to return the plover exclosure boundary from Post 6 to Post 7. ▪ Particularly concerned with dust control measures. CDPR's EIR for dust control determined it would have significant environmental impacts on WSP. Concerned about dust control measures near and in WSP critical habitat.

Lisa Belenky, Center for Biological Diversity	HCP and/or environmental review must: ▪ Ensure the recovery of all covered species; ▪ Be based upon the best available science; ▪ Consider impacts of climate change on covered species; ▪ Address protection and recovery of all covered species, including steelhead; ▪ Appropriately address habitat needs of resident snowy plovers (opposes reduction of nesting habitat); ▪ Address least tern as a Fully Protected species ▪ Should consider addressing additional unlisted species to preclude future listings (provides list) ▪ HCP needs to include adequate funding and enforcement plan; ▪ Address water quality and water flow associated with the Oso Flaco Lake and Creek and Arroyo Grande Creek; ▪ HCP should clearly define covered activities; account for all impacts; and avoid, minimize and mitigate those impacts.
Doug George, Point Blue	Comments to consider for the upcoming draft HCP: • Small increases in adult mortality can have substantial impacts on a population over time. HCP should include: • A correction factor for detection of juvenile and adult plover mortality caused by vehicle strikes; • Correction factor for detection of juvenile and adult plover mortality caused by vehicle strikes; • Threat analysis for juvenile and adult plovers during vehicle activity at night; • Information collected during a 5-year study at ODSVRA on seasonal exclosure wrack zone and wrack-dependent invertebrates, • Information on current models for rates of sea level rise, management to maintain space for inland retreat and providing habitat for plovers as sea level rises.

Table 4. Public meeting comments

Comments and questions summarized from the February 7, 2018 public meeting 20 attendees	1. Education: Endangered Species, minimize take, how can we do it better? 2. Steelhead Trout – Should it be included? 3. Consistent handing out of brochures –Safety Education Center update 4. Evaluate night riding impacts 5. How will you monitor to assure that increased vegetation from dust control mitigation will not further threaten endangered species by adding predators? 6. Concern about "lack of policing" at Oso Flaco for dogs… dogs off leash are predators. 7. Concern about amount of fertilizer used for re-vegetation projects. 8. Would you consider off-site mitigation for California least tern/western snowy plover? 9. Chumash consultation on dust mitigation projects/planning. 10. Can you consider staggering use of OHV's days/hours? 11. Alternative access, riding not in sensitive habitat areas. 12. Consider an alternative area for permanent fences. Open current riding area/temporary breeding area. 13. Consider how we factor species who are injured. 14. Do you track the different areas/sites recovery numbers within the range? 15. Oso Flaco transfer between lakes on the causeway needs to be improved. 16. Alternative access during wet season. 17. Riding closure during breeding season. 18. All literature in Spanish and English. 19. Increase California least tern/western snowy plover signage on post markers. 20. Evaluate sand granule size as part of nesting preference.
Zette Harbour (comment card)	• Appreciates State Parks moving forward with HCP • HCP must provide conservation toward recovery, not just survival • HCP should not reduce protections for nesting birds • Increased recreation will harm birds and should not be included • State Parks needs to address air quality impacts from OHVs and use a State Natural Communities Conservation Plan for Fully Protected species

2.5 PUBLIC COMMENT RESPONSES

General responses to public comments are organized by topics.

Comments on the Draft HCP

Specific comments regarding the upcoming draft HCP have been noted. We have also shared these comments with State Parks for their consideration. At a future date, the draft HCP will be available for review and public comment; this will give the public an opportunity to review and comment on the plan in its entirety and see how specific issues are addressed. Additionally, State Parks will issue a draft California Environmental Quality Act (CEQA) document and the Service a draft NEPA document; these in conjunction with the draft HCP would cover the breadth of issues raised in these public comments. Below, we address comments regarding reduction of exclosures, recovery of species, the potential for new or changing projects within the permit term, and California least tern and the federally endangered South-Central California Coast steelhead (*Oncorhynchus mykiss*) (steelhead).

Reduction of Exclosures

In the January 11, 2018, NOI, the proposed action alternative included a reduction of two protective exclosures, the East Boneyard and 6 exclosures. In our NOI, we did not clarify that the reductions are proposed in an area with little to no breeding activity in the East Boneyard, and reduction of the 6 exclosure would occur only if specific biological success criteria are met and maintained. The draft HCP will outline details of the proposed reductions and associated criteria. As mentioned, the draft HCP will be available for review and public comment at a future date.

Recovery

Although HCPs can contribute to the recovery of listed species, ensuring their recovery is not a requirement for permit issuance. Section 10(a)(2)(B) of the Act requires the following criteria to be met before the Service may issue an incidental take permit. If these criteria are met, and there are no disqualifying factors, we must issue the incidental take permit:

1. The taking will be incidental.
2. The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.
3. The applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided
4. The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

New or Changing Projects

We recognize that State Parks is working on a number of initiatives for park operations, maintenance and compliance, and others, which are still in development. The current strategy is to include projects in the draft HCP that are in relatively final stages of project planning and likely to

occur within the permit term; projects that are more uncertain in timing and scope would be addressed on a case-by-case basis. At those times, the Service and State Parks would evaluate whether a minor, major, or any amendment to the HCP is necessary. Definitions and process for both minor and major amendments will be outlined in the draft HCP.

California Least Tern and South-Central California Coast Steelhead
The State of California has designated the California least tern as a Fully Protected species. California Fully Protected designation provides for a different level of protections and requirements for compliance than under Federal laws. State Parks is in coordination with the California Department of Fish and Wildlife to develop a State-specific Natural Community Conservation Plan for California least tern. Further discussion of this coordination will be described in the draft HCP.

The National Oceanic and Atmospheric Administration's (NOAA) National marine Fisheries Service (NMFS) is the agency responsible for administering protections under the Act for steelhead. In 2008, NMFS acknowledged that implementation of a 2008 State Parks take-avoidance plan would reduce the likelihood of unauthorized take of steelhead (NMFS 2008, State Parks 2008); therefore, NMFS did not recommend State Parks acquire incidental take authorization for routine operations and maintenance and allowable visitor use activities. Because of this, steelhead has not been proposed for coverage in the draft HCP.

Comments on the NEPA Analysis
Specific comments regarding the upcoming NEPA analysis have been noted. We have also shared these comments with State Parks for their consideration. At a future date, the draft EA will be available for review and public comment; this will give the public an opportunity to review and comment on the NEPA analysis and see how specific issues are addressed. Below, we provide a brief discussion of the Service's decision to prepare an EA for NEPA compliance.

The Service's proposed action is issuance of an ITP authorizing take of threatened and endangered wildlife species that would result from the covered activities in the draft HCP. The draft EA will evaluate the impacts of the proposed action and alternatives. The Service does not authorize the activities that are causing the take; instead, we authorize the incidental take that could result from otherwise lawful activities covered under the HCP. However, the NEPA review does consider the effects of covered activities proposed in the HCP on the human environment. There are three levels of NEPA review for a Federal action:

Table 5. Levels of NEPA

1. Categorical Exclusion	Accompanies a low-effect HCP, results in an Environmental Action Statement and Categorical Exclusion from additional NEPA analysis
2. Environmental Assessment	Results in a Finding of No Significant Impact (FONSI)
3. Environmental Impact Statement	Results in a Record of Decision (ROD)

State Parks' covered activities do not qualify under a low-effect HCP and our proposed action does not meet the criteria for a categorical exclusion from NEPA; therefore, we considered an EA or EIS level NEPA review. The following information describes how the level of NEPA review has been determined for this project. (Service 2018)

Environmental Assessments

The purpose of an EA is to determine whether the proposed action would result in significant impacts to the human environment, providing analysis of impacts to determine whether to prepare an EIS or a FONSI. An EA helps to identify the significance of the effects of our action.

An EA should be prepared in any one of these situations (NOAA and Service 2016):

- An action is not listed as a categorical exclusion, or the action is not listed as an action normally requiring an EIS, and a decision to prepare an EIS has not been made;
- Additional analysis and public input are needed to know whether the potential for significant impact exists;
- Preliminary analysis indicates there is no scientific basis to believe significant impacts would occur, but some level of scientific controversy exists;
- The action is described on the list of actions normally categorically excluded, but one of the extraordinary circumstances applies; or
- Potential significant effects that might otherwise require an EIS could be substantially mitigated with proven mitigation measures or alternatives with proven mitigation incorporated into it.

Actions Normally Requiring an EA (Service 2018):

- Proposals to establish most new refuges and fish hatcheries; and most additions and rehabilitations to existing installations.
- Any habitat conservation plan that does not meet the definition of "low effect" in the Section 10(a)(1)(B) Handbook.
- If, for any of the above proposals, the EA determines that the proposal is a major Federal action significantly affecting the quality of the human environment, an EIS will be prepared. The determination to prepare an EIS will be made by a notice of intent in the Federal Register and by other appropriate means to notify the affected public.

Environmental Impact Statements

The Council of Environmental Quality (CEQ) regulations at 40 CFR 1502.1 state "the primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government." In practice, it is a detailed written statement required by section 102(2)(C) of NEPA that analyzes the environmental impacts of a proposed action, adverse effects of a project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the

maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources (40 CFR 1508.11) (NOAA and Service 2016).

Major Actions Normally Requiring an EIS (Service 2018):

A. The following Service proposals, when determined to be a major Federal action significantly affecting the quality of the human environment, will normally require the preparation of an EIS.
    1. Major proposals establishing new refuge system units, fish hatcheries, or major additions to existing installations, which involve substantive conflicts over existing State and local land use, significant controversy over the environmental effects of the proposal, or the remediation of major on site sources of contamination.
    2. Master or comprehensive conservation plans for major new installations, or for established installations, where major new developments or substantial changes in management practices are proposed.

B. If, for any of the above proposals it is initially determined that the proposal is not a major Federal action significantly affecting the quality of the human environment, an EA will be prepared and handled in accordance with 40 CFR 1501.4(e)(2). If the EA subsequently indicates the proposed action will cause significant impacts, an EIS will be prepared (Service 2018)

<u>Significance and Baseline</u>

The proposed action is issuance of an ITP authorizing take that would result from the covered activities in the draft HCP; the HCP outlines conservation measures to mitigate the take. To determine significance of effects resulting from permit issuance, we look at the difference in effects between conditions in a no-action scenario (current/ongoing management with no ITP) to the conditions anticipated from the proposed action (NOAA and Service 2016). State and Federal agencies take into account that some impacts determined to be significant under CEQA may not necessarily be determined significant under NEPA (CEQ and California Governor's Office of Planning and Research (OPR) 2014).

Natural resource management, inclusive of federally listed species, has been an ongoing component of State Parks' operations at Pismo State Beach, Pismo Lake, and Oceano Dunes. Habitat and species management for California least tern and western snowy plover in particular has been occurring since 1991 and 1992, respectively (State Parks 2018). State Parks has implemented numerous management actions for protection and enhancement of habitat and nesting success. In these years, management actions have increased, and annual data indicate overall increases in numbers and nesting success (see tables 6, 7 and figures 1, 2).

Table 6. Nesting success of California least terns at Oceano Dunes from 1991-2018 (State Parks 2018).

Year	Estimated no. breeding pairs	No. nests (no. known fate)	No. hatched nests	Percent known fate nests hatched	No. chicks	Percent chicks fledged	No. juveniles	Juveniles fledged per nest	Estimated no. juveniles fledged per pair
1991	4-5	6 (6)	2	33	4	100	4	0.67	0.80-1.00
1992	3-4	4 (4)	1	25	2	50	1	0.25	0.25-0.33
1993	0	0	0	0	0	0	0	0	0
1994	2	2 (2)	0	0	0	0	0	0	0
1995	1	1 (1)	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	16-19	21 (16)	3	19	6	0	0	0.00	0.00-0.00
1998	33-37	40 (32)	26	81	40	60	24	0.60	0.65-0.73
1999	28-31	34 (31)	22	71	42	40	17	0.50	0.55-0.61
2000	4-5	5 (5)	4	80	8	50	4	0.80	0.80-1.00
2001	12-15	18 (18)	13	72	22	55	12	0.67	0.80-1.00
2002	20-21	22 (19)	15	79	27	37	10	0.45	0.48-0.50
2003	53-66	79 (77)	60	78	101	37	37	0.47	0.56-0.70
2004	47-55	63 (60)	44	73	69	36	25	0.40	0.45-0.53
2005	47-53	59 (59)	39	66	66	30	20	0.34	0.38-0.43
2006	31-35	38 (38)	28	74	45	78	35	0.92	1.00-1.13
2007	54-60	66 (66)	51	77	90	79	71	1.08	1.18-1.31
2008	55-56	56 (56)	50	89	99	72	71	1.27	1.27-1.29
2009	25-26	26 (26)	23	88	43	77	33	1.27	1.27-1.32
2010	23	23 (23)	20	87	35	83	29	1.26	1.26
2011	33-34	35 (35)	31	89	55	91	50	1.43	1.47-1.52
2012	41-44	46 (39)	32	82	51	82	42	0.91	0.95-1.02
2013	48-53	57 (52)	45	87	85	66	56	0.98	1.06-1.17
2014	47-48	49 (46)	42	91	76	76	58	1.18	1.21-1.23
2015	44-49	54 (54)	48	89	84	82	69	1.28	1.41-1.57
2016	47-48	49 (47)	46	98	78	76	59	1.20	1.23-1.26
2017	42-47	52 (34)	22	65	39	18	7	0.13	0.15-0.17
2018	30-33	35 (35)	28	80	42	83	35	1.00	1.06-1.17

Table 7. Number of snowy plover breeding adults, breeding males, fledglings, and chicks fledging per breeding male for the 16-year period 2002-2017 (State Parks 2018).

Year	Min. no. breeding adults	Min. no. breeding m ales	No. fledglings	No. fledglings per breeding m ale[1]
2002	32	18	35	1.94
2003	84	52	107	2.06
2004	121	67	66	0.99
2005	116	65	82	1.26
2006	107	58	17	0.29
2007	79	47	66	1.40
2008	95	54	72	1.33
2009	114	66	81	1.23
2010	137	78	103	1.32
2011	160	94	152	1.62
2012	190	105	96	0.91
2013	163	92	187	2.03
2014	226	120	196	1.63
2015	205	113	277	2.45
2016	209	110	157	1.43
2017	183	93	174	1.87
2018	201	115	200	1.74
Average for 17-ye ar period 2002-18	142	79	122	1.50
Average for 5-ye ar period 2014-18	205	110	201	1.82
Average for 3-ye ar period 2016-18	198	106	177	1.68

[1]Number of fledglings per breeding male will be overestimated if the number of breeding males is undercounted

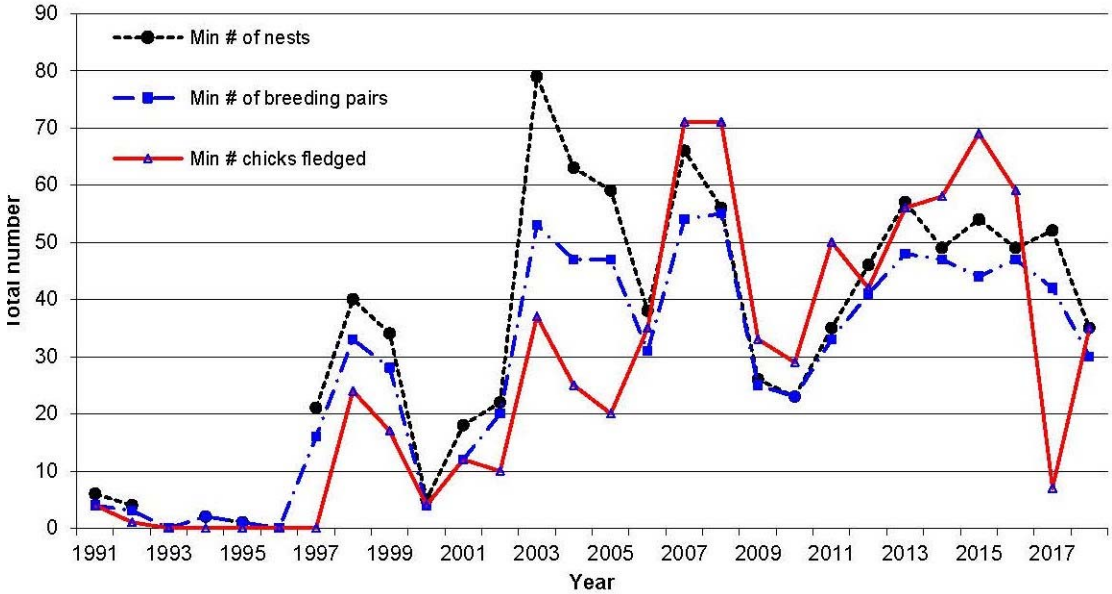

Figure 1. Number of California least tern nests, pairs, and fledglings at Oceano Dunes from 1991-2018 (State Parks 2018)

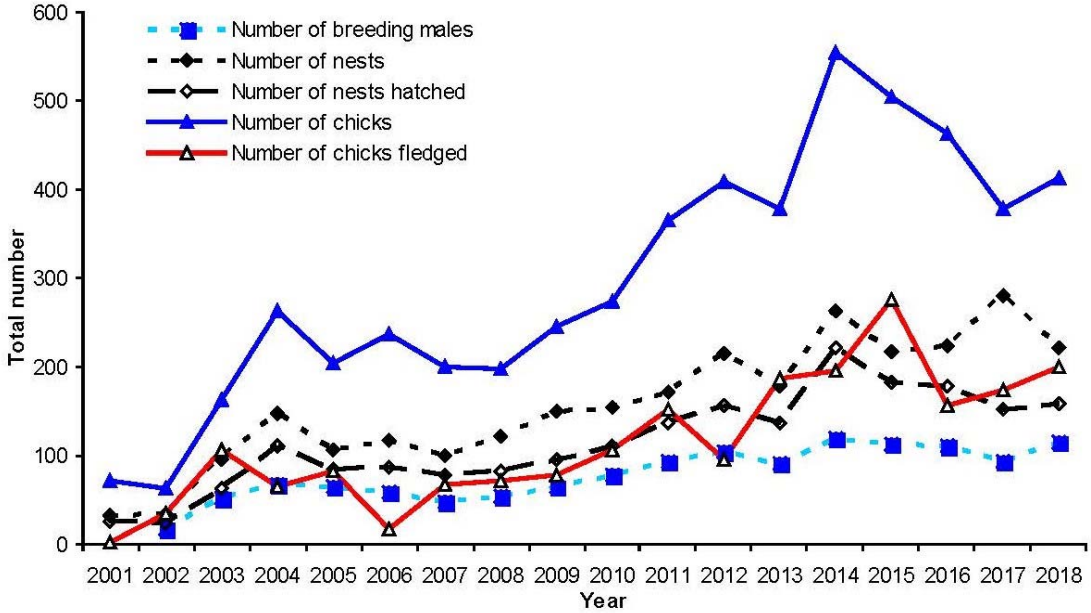

Figure 2. Number of snowy plover breeding males, nests, nests hatched, chicks, and chicks fledged at Oceano Dunes from 2001-2018 (State Parks 2018).

The HCP would formalize State Parks' already established natural resource management program, additionally establishing biological goals and objectives, incidental take limits, and assurance of funding for the life of the permit; thus, providing assurance of long-term protection and conservation of the covered species at Oceano Dunes. Past, current, and ongoing management for California least tern and western snowy plover at Oceano Dunes since the early 1990s has demonstrated effective species and habitat management. In our preliminary consideration, bearing in mind the difference in effects between conditions of current and ongoing management to the conditions anticipated from the proposed issuance of an ITP and implementation of the HCP, we assessed that our action would not constitute a major proposal establishing new or major developments or substantial changes in management practices; rather, it would formalize existing operations and management and proposes to offset new impacts with implementation of the HCP. We recognize that impacts to species and habitat associated with park operations occur and additional analysis and public input are needed; however, our preliminary evaluation is that potential significant effects to the human environment that might otherwise require an EIS could be substantially mitigated with proven mitigation measures or alternatives with proven mitigation incorporated. For these reasons, we conclude the appropriate level of NEPA review for this project is an EA. If the EA determines that our proposed action is a major Federal action significantly affecting the quality of the human environment, an EIS will be prepared.

3.0 SUMMARY AND NEXT STEPS

We continue to work with State Parks on finalization of the draft HCP and on our draft EA. At a future date, we will publish a notice of availability in the Federal Register when the draft documents are ready for review. This will begin a 30-day public comment period for the draft HCP and EA.

During the public comment period and concurrent with finalization of the HCP and NEPA review, we will prepare drafts of internal documents (biological opinion, findings and recommendations, and NEPA decision document). These documents will be preliminary and are subject to revision after we review public comments received on the draft HCP and draft EA. The Service can issue the ITP once the required documents are finalized and State Parks meets all permit issuance criteria.

4.0 REFERENCES CITED

[State Parks] California Department of Parks and Recreation. 2008. Instream and riparian activities plan to avoid take of south-central California coast steelhead in San Luis Obispo coastal units of the State Park system, San Luis Obispo County, California. Prepared by TRA Environmental Sciences, Inc., Menlo Park, California. April 2008.

[State Parks] California Department of Parks and Recreation. 2018. Nesting of the California least tern and western snowy plover at Oceano Dunes State Vehicular Recreation Area, San Luis Obispo County, California, 2018 season. Prepared for the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service by the California Department of Parks and Recreation Off-Highway Motor Vehicle Division, Oceano Dunes District. November 2018.

[CEQ and OPR] Council on Environmental Quality and California Governor's Office of Planning and Research. 2014. NEPA and CEQA: integrating Federal and State environmental reviews. February 2014.

[NMFS] National Oceanic and Atmospheric Administration National Marine Fisheries Service. 2008. Evaluation of the California Department of Parks and Recreation's take avoidance plan for San Luis Obispo coastal units of the State Parks System. Prepared by National Marine Fisheries Service, Long Beach California. December 23, 2008.

[NOAA and Service] National Oceanic and Atmospheric Administration and U.S. Fish and Wildlife Service. 2016. Habitat conservation planning and incidental take permit processing handbook. U.S. Department of the Interior and U.S. Department of Commerce. December 21, 2016.

[Service] U.S. Fish and Wildlife Service. 2018. National Environmental Policy Act draft reference handbook.

APPENDICES

Appendix A. January 22, 2018, Notice of Intent

1380 Federal Register / Vol. 83, No. 8 / Thursday, January 11, 2018 / Notices

notice, we will publish a notice in the **Federal Register**. You may locate the **Federal Register** notice announcing the permit issuance date by searching *regulations.gov* under the permit number listed in this document (*e.g.*, PRT–12345C).

V. Authority

The authority for this action is the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*).

Joyce Russell,

Government Information Specialist, Branch of Permits, Division of Management Authority.

[FR Doc. 2018–00321 Filed 1–10–18; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–R8–ES–2017–N115; FRES48020810360–XXX]

Draft Habitat Conservation Plan for the California Department of Parks and Recreation Oceano Dunes District, San Luis Obispo County, California; Notice of Intent To Prepare Environmental Assessment or Environmental Impact Statement; Initiation of Public Scoping Process

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of intent; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), intend to prepare draft environmental analysis (either an environmental assessment or an environmental impact statement) under the National Environmental Policy Act (NEPA) for the proposed habitat conservation plan for the California Department of Parks and Recreation Oceano Dunes District (HCP). The HCP is a conservation plan as required under the Endangered Species Act of 1973, as amended (ESA), for issuance of an incidental take permit (ITP). The draft environmental analysis will evaluate the impacts of several alternatives related to the proposed issuance of an ITP to the California Department of Parks and Recreation Oceano Dunes District (CDPR, applicant) for incidental take of threatened and endangered wildlife species that could result from activities covered under the HCP. The HCP would also include conservation measures for endangered plants. We also are announcing the initiation of a public scoping process to engage Federal, Tribal, State, and local governments and the public in the identification of issues and concerns, potential impacts, and possible alternatives to the proposed action.

DATES: In order to be included in the analysis, all comments must be received or postmarked on or before March 12, 2018. We will hold public scoping meetings at a location in the vicinity of the proposed plan area. At least one week prior to the meeting dates, we will announce exact meeting locations, dates, and times in local newspapers and on the internet at *https://www.fws.gov/ventura/*.

ADDRESSES: Please provide comments in writing by one of the following methods:

- *Email: lena_chang@fws.gov.* Please include Oceano Dunes HCP in the subject line of the message.
- *Facsimile:* 805–644–3958, Attn: Oceano Dunes HCP.
- *U.S. Mail:* Field Supervisor, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003. Please specify that your information request or comments concern the Oceano Dunes HCP.

FOR FURTHER INFORMATION CONTACT: Lena Chang, by U.S. mail (see **ADDRESSES**), or by phone at 805–677–3305. If you use a telecommunications device for the deaf, please call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION: We, the U.S. Fish and Wildlife Service (Service), intend to prepare an environmental analysis under the National Environmental Policy Act, as amended (42 U.S.C. 4321 *et seq.;* NEPA), for the proposed habitat conservation plan (HCP) for the California Department of Parks and Recreation Oceano Dunes District. The HCP is a conservation plan as required under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.;* ESA), for issuance of a section 10(a)(1)(B) incidental take permit (ITP). The proposed ITP would authorize the incidental take of threatened and endangered wildlife species that could result from ongoing activities associated with the public use, recreation management, natural resources management, and park and beach management in two coastal Oceano Dunes District park units and an associated inland lake located in San Luis Obispo County, California. The HCP would also include conservation measures to protect endangered plant species. We also are announcing the initiation of a public scoping process to engage Federal, Tribal, State, and local governments and the public in the identification of issues and concerns, potential impacts, and possible alternatives to the proposed action. Upon completion of the public scoping process and completion of our review of the applicant's proposed HCP, we may determine that an environmental assessment rather than an environmental impact statement is sufficient to support potential issuance of the ITP.

Background

Section 9 of the ESA and its implementing regulations prohibit "take" of fish and wildlife species listed as endangered or threatened (16 U.S.C. 1538; 50 CFR 17.21 and 17.31). Under section 3 of the ESA, the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (16 U.S.C. 1532(19)). The term "harm" is further defined by regulation as an act that actually kills or injures wildlife. Such acts may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). The term "harass" is also further defined in the regulations as an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3).

Under section 10(a)(1)(B) of the ESA, the Secretary of the Interior may authorize the taking of federally listed species if such taking occurs incidental to otherwise legal activities and where a conservation plan has been developed under section 10(a)(2)(A) that describes: (1) The impact that will likely result from such taking; (2) the steps an applicant will take to minimize and mitigate that take to the maximum extent practicable and the funding that will be available to implement such steps; (3) the alternative actions to such taking that an applicant considered and the reasons why such alternatives are not being utilized; and (4) other measures that the Service may require as being necessary or appropriate for the purposes of the plan. Issuance criteria under section 10(a)(2)(B) for an incidental take permit require the Service to find that: (1) The taking will be incidental to otherwise lawful activities; (2) an applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) an applicant has ensured that adequate funding for the plan will be

provided; (4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (5) the measures, if any, we require as necessary or appropriate for the purposes of the plan will be met. Regulations governing permits for endangered and threatened species are at 50 CFR 17.22 and 17.32, respectively.

Public Scoping

A primary purpose of the scoping process is to receive suggestions and information on the scope of issues and alternatives to consider when drafting the environmental documents and to identify significant issues and reasonable alternatives related to the Service's proposed action (issuance of an ITP under the HCP). In order to ensure that we identify a range of issues and alternatives related to the proposed action, we invite comments and suggestions from all interested parties. We will conduct a review of this project according to the requirements of NEPA and its regulations, other relevant Federal laws, regulations, policies, and guidance, and our procedures for compliance with applicable regulations. Once the environmental documents are completed, we will offer further opportunities for public comment.

Proposed Action

The proposed action is the issuance of an incidental take permit (ITP) for the covered species for the recreational and management activities within the proposed permit area for a period of 25 years. The proposed HCP, which must meet the requirements of section 10(a)(2)(A) of the ESA by providing measures to minimize and mitigate the effects of the potential incidental take of covered species to the maximum extent practicable, would be developed and implemented by the applicant. This alternative could allow for a comprehensive mitigation approach for unavoidable impacts and reduce permit processing times and efforts for the applicant and the Service.

Activities proposed for coverage under the proposed ITP would be otherwise lawful activities that could occur consistent with the HCP, include, but are not limited to:

1. Park Visitor Activities: Motorized recreation, including off highway vehicle use (*i.e.*, 4x4, all-terrain vehicle, quad, motorcycle, and sandrail); camping; pedestrian activities including picnicking, sunbathing, swimming, hiking; bicycling and golfing; fishing; dog walking (on leash only); equestrian recreation; boating/surfing; and aerial/wind driven activities, including kiteboarding; and holiday or special events.

2. Natural Resources and Covered Species Management: Management for bird species (habitat protections, habitat enhancement, monitoring, banding, tracking, predator control, and other ongoing programs, salvaging abandoned eggs and chicks; fish surveys; amphibian surveys and associated management; plant monitoring, propagation, and habitat enhancement; habitat restoration program, including seed collection, propagation, planting, monitoring, and minor grading to access work areas; exotic pest plant and animal control, including prescribed fire, herbicide application, and hand clearing of paths to access work areas; Habitat Monitoring System implementation, including small mammal trapping, point counts, shorebird counts, and coverboards; and water quality monitoring and improvement projects.

3. Park Maintenance: Campground maintenance, including mowing, hazardous tree program, restroom upkeep, and housekeeping; general facilities maintenance; trash control; wind fence installation, maintenance, and removal; sand ramp and other vehicular access maintenance, including roadway resurfacing; street sweeping; routine riparian maintenance; spillway and culvert maintenance; vegetation management along trails and roads; emergent vegetation control; minor flood control maintenance; perimeter and vegetation island fence installation, maintenance, and removal; cable fence maintenance and sand movement; heavy equipment response in all areas of Oceano Dunes State Vehicular Recreation Area; minor grading (less than 50 cubic yards); and boardwalk and other pedestrian access maintenance.

4. Visitor Services: Ranger, lifeguard, and park aide patrols; emergency response, including accidents, injuries, distressed vessels, search and rescue; access by non-CDPR vehicles; American Safety Institute courses, including all-terrain vehicles and recreational utility vehicle courses; concessions; Pismo Beach Golf Course operations; Grover Beach Lodge and Conference Center; natural history and interpretation programs, including stationary programs, roving interpretation, interpretive walks, and driving tours.

5. Other HCP Covered Activities: Motorized vehicle crossing of Arroyo Grande Creek; Pismo Creek estuary seasonal (floating) bridge; recreational riding in 40 acres; replacement of the Safety and Education Center; dust control activities; cultural resources management; management of agricultural lands; maintenance of bioreactor on agricultural lands; Oso Flaco Lake causeway culvert replacement; special projects; and reduction of the Boneyard and 6 exclosures.

We anticipate that the following 10 Federal and State listed species will be included as covered species in the applicant's proposed HCP. *The applicant is seeking incidental take authorization for the four covered animal species.

Federally Endangered: *California least tern (*Sternula antillarum browni*), *tidewater goby (*Eucyclogobius newberryi*), Gambel's watercress (*Rorippa gambelii*), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), marsh sandwort (*Arenaria paludicola*), Nipomo Mesa lupine (*Lupinus nipomensis*)

Federally Threatened: *western snowy plover (*Charadrius nivosus nivosus*), *California red-legged frog (*Rana draytonii*)

Not Federally Listed: surf thistle (*Cirsium rhothophilum*), beach spectaclepod (*Dithyrea maritime*)

Candidate and federally listed species not likely to be taken by the covered activities and therefore not covered by the proposed ITP may also be addressed in the proposed HCP to explain why the applicant believes these species will not be taken.

Other Alternatives

The proposed action presented in the environmental analysis will be compared to the no-action alternative. The no-action alternative compares estimated future conditions without implementation of the proposed HCP to the estimated future conditions with the HCP in place. The no action and one other alternative, including their potential impacts, will be addressed and are outlined below.

No-Action Alternative

Because the proposed covered activities are integral to CDPR's operational mission, these activities would continue regardless of whether this 10(a)(1)(B) ITP is issued. Without a 10(a)(1)(B) ITP, the applicant should avoid impacts to protected species' habitat. Where potential impacts to federally protected species within the proposed permit area could not be avoided, the applicant should seek an individual section 10(a)(1)(B) ITP on a project-by-project basis. Although future activities by the applicant would be similar to those covered by the HCP, not all activities would necessitate an incidental take permit. Thus, under the no-action alternative, the applicant

would likely have to file numerous separate section 10(a)(1)(B) permit applications over the 25-year project period. This activity-by-activity approach would be more time consuming and less efficient than authorizing activities under this comprehensive incidental take permit, and could result in a fragmented mitigation approach.

Proposed Action Without Reduction of Exclosure Boundaries

This alternative is the proposed action without reductions in exclosure boundaries in the Boneyard and 6 exclosure areas. With this alternative, the boundaries of the Boneyard and 6 exclosures would not be reduced in size to increase areas for recreation. Off highway vehicle and camping opportunities in this area would remain as they are under the current management program.

Public Availability of Comments

Written comments we receive become part of the public record associated with this action. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that the entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. Comments and materials we receive, as well as supporting documentation we use in preparing the environmental analysis, will be available for public inspection, by appointment, during normal business hours at the Service's Ventura Fish and Wildlife Office in Ventura, California (see **ADDRESSES**, above).

Scoping Meetings

See **DATES** for the date and times of our public meetings. The purpose of scoping meetings is to provide the public with a general understanding of the background of the proposed HCP and activities it would cover, alternative proposals under consideration, and the Service's role and steps to be taken to develop the draft environmental analysis for the proposed HCP.

Additionally, the purpose of these meetings and public comment period is to solicit suggestions and information on the scope of issues and alternatives for the Service to consider when preparing the draft environmental documents. Oral and written comments will be accepted at the meetings. Comments can also be submitted by methods listed in the **ADDRESSES** section. Once the draft environmental documents and proposed HCP are complete and made available for review, there will be additional opportunity for public comment on the content of these documents through an additional comment period.

Meeting Location Accommodations

Please note that the meeting location will be accessible to wheelchair users. If you require additional accommodations, please notify us at least 1 week in advance of the meeting.

Authority

We publish this notice in compliance with the NEPA and its implementing regulations (40 CFR 1501.7, 1506.6, and 1508.22), and section 10(c) of the ESA.

Dated: December 28, 2017.

Stephen P. Henry,

Field Supervisor, Pacific Southwest Region, U.S. Fish and Wildlife Service.

[FR Doc. 2017–28489 Filed 1–10–18; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

U.S. Geological Survey

[GX17RB00CMFCA00; OMB Control Number 1028–New]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Current and Future Landsat User Requirements

AGENCY: U.S. Geological Survey (USGS), Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: We (the USGS) will ask the Office of Management and Budget (OMB) to approve the information collection (IC) described below. As required by the Paperwork Reduction Act (PRA) of 1995, and as part of our continuing efforts to reduce paperwork and respondent burden, we invite the general public and other Federal agencies to take this opportunity to comment on this IC.

DATES: To ensure that your comments are considered, we must receive them on or before February 12, 2018.

ADDRESSES: Send written comments on this information collection request (ICR) to the Office of Management and Budget's Desk Officer for the Department of the Interior by email at *OIRA_Submission@omb.eop.gov;* or via facsimile to (202) 395–5806. Please provide a copy of your comments to USGS, Information Collections Clearance Officer, 12201 Sunrise Valley Drive, MS 159, Reston, VA 20192; or by email to *gs-info_collections@usgs.gov.* Please reference OMB Control Number 1028–NEW in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: Rudy Schuster, Branch Chief, at (970) 226–9230 or *schusterr@usgs.gov.*

SUPPLEMENTARY INFORMATION: We, the U.S.G.S., in accordance with the Paperwork Reduction Act of 1995, provide the general public and other Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

A **Federal Register** notice with a 60-day public comment period soliciting comments on this collection of information was published on June 19, 2017, 82 FR 27867. No comments were received.

We are again soliciting comments on the proposed IC that is described below. We are especially interested in public comment addressing the following issues: (1) Is the collection necessary to the proper functions of the USGS; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the USGS enhance the quality, utility, and clarity of the information to be collected; and (5) how might the USGS minimize the burden of this collection on the respondents, including through the use of information technology.

Comments that you submit in response to this notice are a matter of public record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you may ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Abstract: The USGS Land Remote Sensing (LRS) Program is currently planning for the next generation of Landsat satellites. These satellites will continue the multi-decadal continuous collection of moderate-resolution,

Appendix B. Public Scoping Meeting Press Release and Frequently Asked Questions

U.S. Fish & Wildlife Service

News Release

Ventura Fish and Wildlife Office
2493 Portola Rd., Suite B
Ventura, California 93003
Phone: 805-644-1766
www.fws.gov/ventura

FOR IMMEDIATE RELEASE
January 10, 2018

CONTACT
Ashley Spratt, Ashley_spratt@fws.gov, (805) 677-3301

U.S. Fish and Wildlife Service and California State Parks Seek Public Input for Environmental Analysis of Proposed Habitat Conservation Plan for Oceano Dunes District Units in San Luis Obispo County

Public Open House to be held on February 7, 2018 at Ramona Garden Park in Grover Beach

The U.S. Fish and Wildlife Service and California State Parks invite public input in the preparation of an environmental analysis for a proposed Habitat Conservation Plan (HCP), which would be a collaborative and comprehensive strategy to balance recreational opportunities with the conservation of rare wildlife, plants, and their habitats at three state park units in the Oceano Dunes District: Pismo State Beach, Ocean Dunes State Vehicular Recreation Area, and Pismo Lake.

The Service and California State Parks also invite the public to an informational open house at Ramona Garden Park at N 10th St. in Grover Beach on February 7, 2018 from 6:00 p.m. to 8:00 p.m. The open house will provide an opportunity to meet with Service and State Parks personnel, learn about the HCP and NEPA processes, and provide input.

Habitat conservation plans are required under the Endangered Species Act (ESA) for issuance of an incidental take permit. Once finalized, the HCP would outline measures designed to avoid, minimize, and mitigate the effects of covered activities to ensure the conservation, protection, and contributions to the recovery of the federally threatened western snowy plover and California red-legged frog, and the federally endangered California least tern, tidewater goby, Gambel's watercress, La Graciosa thistle, marsh sandwort, and Nipomo Mesa lupine. The incidental take permit would authorize take of the four animal species listed above.

The Service will accept written comments from January 11 to March 12, 2018 to identify potential issues and concerns, potential impacts, and possible alternatives to be considered to determine whether an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is

appropriate for our environmental analysis, as required under the National Environmental Policy Act (NEPA), based on the complexity of issues identified during and following the public scoping period.

A notice of intent to prepare the environmental analysis including an overview of the proposed action is available for public inspection in the Federal Register Reading Room today and will publish in the Federal Register under Docket No. FWS—R8—ES—2017—N115 on January 11, 2018. The notice will also be available at http://fws.gov/ventura.

The public may submit written comments by one of the following methods:

- *Email:* lena_chang@fws.gov (Please include Oceano Dunes HCP in the subject line)
- *U.S. Mail:* Field Supervisor, Ventura Fish and Wildlife Office, 2493 Portola Rd. Suite B, Ventura, California 93003
- *Fax:* 805-644-3965 Attn: Oceano Dunes HCP

The Service regularly engages conservation partners, the public, landowners, government agencies, and other stakeholders in our ongoing effort to identify innovative strategies for conserving and recovering species at risk. Working with others is essential to protecting ecosystems that benefit society as a whole.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals, and commitment to public service. For more information on our work and the people who make it happen, visit http://www.fws.gov/ventura. Connect with our Facebook page, follow our tweets, watch our YouTube Channel, and download photos from our Flickr page.

U.S. Fish & Wildlife Service

Ventura Fish and Wildlife Office

Southern and Central California Coast

Frequently Asked Questions

Public Input Sought for Environmental Analysis of Proposed Habitat Conservation Plan for California State Parks' Oceano Dunes District in San Luis Obispo County

Q. What action is the U.S. Fish and Wildlife Service taking?

A. The U.S. Fish and Wildlife Service is seeking input from the public for an environmental analysis as required under the National Environmental Policy Act (NEPA) for a proposed Habitat Conservation Plan (HCP) for California State Parks' Oceano Dunes District in San Luis Obispo County. The Service will accept written comments during a 60-day public scoping period to identify potential issues and concerns, potential impacts, and possible alternatives to be considered to determine whether an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is appropriate based on the complexity of issues identified during and following the scoping period.

Q. What is the proposed Habitat Conservation Plan (HCP) for California State Parks' Oceano Dunes District in San Luis Obispo County?

A. An HCP is a collaborative and comprehensive strategy that would allow the Service to work with California State Parks to balance recreational opportunities with the conservation, protection, and mitigation for rare wildlife, plants, and their habitats. The proposed HCP would describe measures designed to avoid, minimize, and mitigate the effects of recreational activities allowed on the beach to ensure conservation, protection, and contributions to the recovery of the federally threatened western snowy plover and California red-legged frog, and federally endangered California least tern, tidewater goby, Gambel's watercress, La Graciosa thistle, and marsh sandwort.

The Service regularly engages conservation partners, the public, landowners, government agencies, and other stakeholders in our ongoing effort to identify innovative strategies for conserving and recovering species at risk. HCPs provide a strategy to avoid, minimize, and mitigate impacts to listed species and contribute to their recovery. Working with others is essential to protecting ecosystems that benefit society as a whole.

Q. Why is the U.S. Fish and Wildlife Service working on a proposed Habitat Conservation Plan in this area?

A. The Oceano Dunes District of California State Parks provides habitat for a broad range of wildlife and plants, including several species that are listed under the Endangered Species Act. The Service's mission is to protect and conserve fish, wildlife, and their habitats for the continuing benefit of the American people. HCPs, under section 10(a)(1)(B) of the Endangered

Species Act, are planning documents, providing for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. HCPs are required under the Endangered Species Act for issuance of an incidental take permit. The proposed incidental take permit would authorize the incidental take of threatened and endangered wildlife species that could result from ongoing activities associated with the public use, recreation management, natural resources management, and park and beach management at Pismo State Beach, Oceano Dunes State Vehicular Area, and Pismo Lake located in San Luis Obispo County, California.

Q. How would this plan help conserve federally-listed species?
A. This plan allows the Service to work with California State Parks to develop a planning document that describes anticipated effects and measures designed to minimize and mitigate the effects of their actions, to ensure that species will be conserved, and to contribute to their recovery. Working together with California State Parks and the local community, we aim to find a balance between recreational opportunities and habitat management that avoids, minimizes, and mitigates effects to listed species and contributes to their recovery.

Q. What species would be covered by the plan?
A. Proposed covered species include the federally threatened western snowy plover and California red-legged frog and the federally endangered California least tern and tidewater goby, as well as three federally endangered plant species: Gambel's watercress, La Gaciosa thistle, and marsh sandwort. The plan would also provide benefit to two state-protected plant species, the surf thistle and beach spectaclepod.

Q. What areas and activities would be covered in the proposed Habitat Conservation Plan?

A. The proposed plan is focused on the Oceano Dunes District of California State Parks including Pismo State Beach, Oceano Dunes State Vehicular Recreation Area, and Pismo Lake. Activities proposed for coverage under the proposed incidental take permit would be otherwise lawful activities including but not limited to park visitor activities such as motorized recreation, camping, fishing, and boating; as well as park maintenance; visitor service activities including interpretive programs, driving tours; natural resource management; and other land management activities.

Q. What would be the length of the proposed permit under the Habitat Conservation Plan?

A. The requested permit term under the Habitat Conservation Plan is 25 years after the plan becomes effective.
Q. How can the public provide input during the scoping period?

A. The Service will accept written comments during a 60-day public scoping period to identify potential issues and concerns, potential impacts, and possible alternatives to be considered to determine whether an Environmental Assessment (EA) or Environmental Impact Statement (EIS) is appropriate as required under the National Environmental Policy Act (NEPA) based on the complexity of issues identified during and following the scoping period.

The notice of intent published in the Federal Register on January 11, 2018. Comments and information will be accepted from all interested parties from January 11 until March 12. The public may submit written comments by one of the following methods:

- Email: lena_chang@fws.gov
- U.S. Mail: Field Supervisor, Ventura Fish and Wildlife Office, 2493 Portola Rd. Suite B, Ventura, California 93003
- Fax: 805-644-3965 Attn: Oceano Dunes HCP

Q. What type of information is the agency seeking during the public scoping process?
A. The Service is seeking suggestions and information on the scope of issues and alternatives to consider when drafting the EA or EIS, and to identify significant issues and reasonable alternatives related to the Service's proposed action (issuance of an incidental take permit under the Habitat Conservation Plan). In order to ensure that we identify a range of issues and alternatives related to the proposed action, we invite comments and suggestions from all interested parties.
Q. When will the draft Habitat Conservation Plan be available for public comment?

A. The environmental analysis and draft HCP will be available for public comment at a later date when both documents have been drafted.

Q. What happens next?
A. The Service will determine whether an EA or EIS is appropriate based on the complexity of issues identified during and following the scoping period. We will conduct a review of this project according to the requirements of NEPA and its regulations, other relevant Federal laws, regulations, policies, and guidance, and our procedures for compliance with applicable regulations. Once the draft EA or EIS and draft Habitat Conservation Plan are completed, we will offer additional opportunity for public comment.
For more information about Habitat Conservation Plans, visit:
https://www.fws.gov/endangered/esa-library/pdf/hcp.pdf

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Oceano Dunes District
Habitat Conservation Plan EA

Appendix G: Regulatory Framework

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Appendix G: Regulatory Framework

The Federal Endangered Species Act (FESA), Migratory Bird Treaty Act, and Clean Water Act are the principal Federal laws relevant to the HCP area affected environment.

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 the Service – part of the Department of Interior – for terrestrial and non-marine fish and by National Oceanic and Atmospheric Administration National Marine Fisheries Service (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.

FESA directs Federal agencies to identify and protect endangered and threatened species and their critical habitat, and to provide a means to conserve their ecosystems. FESA requires Federal agencies to "insure that any action authorized, funded, or carried out by such agency … is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species..." (16 U.S.C. 1536 (a)(2)). Because issuance of the ITP is a Federal agency action, FESA is applicable and addressed in this EA.

Migratory Bird Treaty Act

Migratory birds are protected by the Service under the provisions of the Migratory Bird Treaty Act (MBTA) as amended (16 U.S.C. Chapter 7, 703-712), which governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent overutilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. The Secretary of the Interior, in adopting regulations, is to consider such factors as distribution and abundance to ensure that take is compatible with the protection of the species. This guidance would be utilized should consultation be necessary on any activities within the HCP area for the proposed action.

Clean Air Act

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 State

Implementation Plan (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.

Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (CZMA) was passed by Congress to encourage coastal states to develop and implement coastal zone management plans. The CZMA provides for the management of the nation's coastal resources. The California Coastal Commission (CCC) implements the CZMA via the California Coastal Act, the State's certified coastal management program, as it applies to Federal activities, development projects, permits, and licenses. The Oceano Dunes District is located within the California Coastal Zone, and the CCC may review the ITP for consistency with the California Coastal Act.

National Environmental Policy Act

Congress enacted the National Environmental Policy Act (NEPA) in 1969 to ensure that Federal agencies consider the environmental impacts of their actions and decisions. NEPA requires the Federal government to use all practicable means and measures to protect environmental values and makes environmental protection a part of the mandate of every Federal agency and department. NEPA requires analysis and a detailed statement of the environmental impact of any proposed Federal action that significantly affects the quality of the human environment. In accordance with NEPA, the Service prepared an Environmental Assessment that addresses the direct, indirect, and cumulative effects of the proposed action of issuance of an ITP to CDPR for the Oceano Dunes District and alternative actions.

National Historic Preservation Act

All Federal agencies are required to examine the cultural resources impacts of their actions (e.g., issuance of a permit). This may require consultation with the State Historic Preservation Officer (SHPO) and appropriate American Indian tribes. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to the Service. CDPR has completed tribal consultation as documented in the HCP Environmental Impact Report.

Oceano Dunes District
Habitat Conservation Plan EA

Appendix H: References

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Appendix H: References

Agencies and Persons Consulted

Native American Scoping

Sacred Lands File Record Search

A search of the Native American Heritage Commission (NAHC) Sacred Lands File (HCP EIR Appendix E) indicated the presence of Native American cultural sites within portions of the HCP area. A Native American contact list of tribes who may have additional knowledge of the area was provided by the NAHC. CDPR initiated additional communication to request information that may not have been known at the time of previous communication. CDPR sent letters to the following tribes:

- Santa Ynez Band of Chumash Indians
- Barbareno/Ventureno Band of Mission Indians (3 representatives)
- Salinan Tribe of Monterey (2 representatives)
- Xolon-Salinan Tribe
- Coastal Band of the Chumash Nation
- Northern Chumash Tribe
- Northern Chumash Tribal Council

None of the tribes contacted responded to the request for information.

Assembly Bill 52 (AB52) Consultation

One tribe has formally requested consultation under AB52: the Northern Chumash Tribe. CDPR contacted the tribe on April 12, 2017 with information regarding the project and to initiate the AB52 consultation process. The tribe did not respond to the formal notification, and no AB52 consultation took place. Correspondence to the Northern Chumash Tribe is included in HCP EIR Appendix D.

CDPR Native American Consultation

One tribal representative, Fred Collins of the Northern Chumash Tribal Council, attended a public scoping meeting for the HCP EIR on February 7, 2018 and requested consultation under AB52 (Appendix A, Attachment 4). As no formal request for AB52 consultation was filed by the Northern Chumash Tribal Council, CDPR did not conduct an AB52 consultation for the HCP EIR. However, internal CDPR regulations require that Native American consultation takes place whenever a project may impact native resources. No additional communication from Mr. Collins has been received thus far.

Public Agencies Consulted

California Department of Parks and Recreation

Dan Canfield, Manager, OHMVR Division (now District Superintendent for CDPR, Sierra District)
Jon O/Brien, Environmental Program Manager, OHMVR Division
Kevin Pearce, Superintendent, Oceano Dunes District
Ronnie Glick, Senior Environmental Scientist, Oceano Dunes District
Stephanie Little, Environmental Scientist, Oceano Dunes District
Terry Gaines, Environmental Program Manager, Natural Resources Division

Doug Rischbieter, Senior Environmental Scientist (Specialist), CDPR
Heather White, Senior Environmental Scientist, Natural Resources DivisionJay Baker, Associate State Archaeologist

California Department of Fish and Wildlife

Annee Ferranti, Environmental Program Manager

Public Involvement

Scoping report presented in EA Appendix F.

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