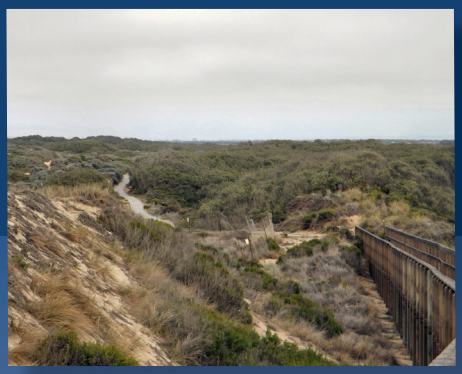

EIR Technical Appendices

Habitat Conservation Plan for the Oceano Dunes District

November 2025

California Department of Parks and Recreation
Oceano Dunes District
Habitat Conservation Plan

Recirculated Draft EIR
Technical Appendices

SCH No. 2018011012

November 2025

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

Prepared by:
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2055 Junction Avenue, Suite 205
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(650) 327-0429
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INTRODUCTION

This document is the Technical Appendices volume of the Recirculated Draft Environmental Impact Report (EIR) for the Oceano Dunes District Habitat Conservation Plan.

This volume presents the following appendices:

Appendix A. Scoping Report

Appendix B. HCP Avoidance and Minimization Measures and CDPR Standard Project Requirements

Appendix C. Special-Status Species in HCP Area

Appendix D. Biological Effects of Existing Covered Activities

Appendix E. Native American Communications

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Oceano Dunes District
Habitat Conservation Plan EIR

Appendix A: Scoping Report

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Oceano Dunes District Habitat Conservation Plan EIR

Scoping Report

August 2018

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

Prepared by:
MIG, Inc.
2635 N. First Street, Suite 149
San Jose, CA 95134
(650) 327-0429
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Oceano Dunes District Habitat Conservation Plan EIR Scoping Report

INTRODUCTION

This scoping report summarizes the public scoping meeting and comments received for the environmental document being prepared in connection with California Department of Parks and Recreation's (CDPR) application for an incidental take permit, for Pismo State Beach and Oceano Dunes State Vehicular Recreation Area (SVRA), (ITP) authorized under Sections 10(a)(1)(A) and 10(a)(1)(B) of the federal Endangered Species Act (FESA). The environmental document will consider potential impacts of implementing CDPR's Habitat Conservation Plan (HCP) and issuance of an incidental take permit by the U.S. Fish and Wildlife Service (USFWS). The report is organized in the following sections:

- Introduction
- Background
- Action and Environmental Document
- Scoping Process
- Comments Received
- Summary of Scoping Comments
- Attachment 1: Notices and Meeting Advertisements
    - Notice of Preparation and Public Scoping Meeting
    - USFWS News Release seeking public input on HCP
    - Notice of Intent
- Attachment 2: Scoping Meeting Presentation
- Attachment 3: Scoping Meeting Attendance Record
- Attachment 4: Scoping Meeting Oral Comments and Questions
- Attachment 5: Scoping Letters
    - Hardcopy Letters
    - Emails
    - Form emails

BACKGROUND

CDPR is in the process of developing a conservation strategy for various species located at Pismo State Beach and Oceano Dunes State Vehicular Recreation Area (SVRA), for which the California Department of Parks and Recreation (CDPR) has responsibility and authority. Management and operation of the two areas may negatively affect western snowy plover (*Charadrius nivosus nivosus*), California least tern (*Sternula antillarum browni*), California red-legged frog (*Rana draytonii*), and tidewater goby (*Eucyclogobius newberryi*), as well as six listed plant species. Therefore, CDPR has prepared a Habitat Conservation Plan (HCP) as part of its application for an incidental take permit (ITP) authorized under Sections 10(a)(1)(A) and 10(a)(1)(B) of the federal Endangered Species Act (FESA). The HCP to be prepared by CDPR in support of the permit applications will describe the impacts of take on proposed covered species, and it will propose a conservation strategy to minimize and mitigate those impacts on each covered species to the maximum extent practicable.

ACTION AND THE ENVIRONMENTAL DOCUMENT

CDPR has prepared a Draft Environmental Impact Report (EIR) for the Oceano Dunes District HCP pursuant to the California Environmental Quality Act (CEQA). USFWS is preparing an environmental review of the Draft HCP pursuant to the National Environmental Policy Act (NEPA) in a separate document. Both the Draft EIR and the USFWS NEPA document will have distinct public review periods and opportunities to provide comment on the respective environmental review document and the Draft HCP.

SCOPING PROCESS

CDPR published a Notice of Preparation (NOP) for the EIR on January 11, 2018 to invite comment on the scope and content of the environmental review of the Oceano Dunes District HCP; the comment period closed on March 12, 2018. Simultaneously, the USFWS published a Notice of Intent in the Federal Register and a News Release to announce preparation of a NEPA environmental review of the HCP and to invite public comment. Both notices announced a joint public scoping meeting on February 7, 2018 for the purpose of inviting public comments on the project.

Public notice of the scoping period and public meeting was distributed to state agencies through the State Clearinghouse, County Clerk offices of adjacent counties, local community agencies, adjacent property residents, homeowner and neighborhood associations, and interested organizations and individuals who have requested notices from CDPR (Attachment 1). Notice was also published in a newspaper of local circulation. The objective of the scoping meeting was to solicit comments to assist the preparation of the environmental document and scope of the Habitat Conservation Plan. Commentors were asked to identify important issues and alternatives related to the proposed action to ensure the full range of issues related to the permit requests is identified.

Members of the public were greeted on arrival and asked to sign the attendance record form listing their name, address, and affiliation. The meeting was held with an open house format beginning with introductions, followed by a slide show presentation by Ronnie Glick, Senior Environmental Scientist, California State Parks (Attachment 2) and was followed by a general question and answer period. The public was then invited to submit verbal comments. Comment cards and mailing information were also provided for written comments. The notice and presentation stated that written comments would be accepted through March 12, 2018.

Representatives from the Oceano Dunes District of CDPR, USFWS, and MIG consultants attended and conducted the scoping meeting. Twenty members of the public signed the attendance list (Attachment 3) for the meeting.

COMMENTS RECEIVED

A total of 20 oral comments were received at the scoping meeting (Attachment 4). Twelve distinct comment letters, emails or comment cards were received in response to the NOP and NOI and one form letter email was submitted by 2,053 individuals. Some of the form letters contained additional unique comments as recorded with the form letter. Scoping comments were submitted by private individuals, public agencies, and private conservation groups (Attachment 5).

SUMMARY OF SCOPING COMMENTS

Some of the comments related to the HCP rather than the environmental document, and some comments expressed support or opposition to certain aspects of the proposed HCP. Some comments pertained only to the federal agency environmental review under NEPA. Only those comments relating to the scope of the environmental analysis are presented below. The comments focused on air quality, biological resources, cultural resources, water quality/hydrology, recreation opportunity, the alternatives analysis, and cumulative impacts.

- **Document Type & Review Process.** Specify whether EIR will be used as programmatic "tiering" document or provide project-level review, prepare a full EIS not an EA, and that a NCCP is needed for CLTE since it is a Fully Protected Species.
- **General Comments Applying to Entire Document.** Base environmental review on best available science and survey data following established protocols. (see methodology section for each impact analysis chapter)
- **Project Description- Proposed Action.** Identify purpose and need and rationale for proposed action. HCP and CEQA/NEPA documents must clearly identify enforcement provisions.
- **Air Quality.** Address general impacts of motorized recreation on air quality, dust, and particulates. For air quality analysis, quantify emissions, identify emissions sources, and include construction emissions mitigation including fugitive dust source controls, stationary equipment source controls, and administrative controls. Demonstrate project emissions of air basin pollutants in nonattainment or maintenance status are accounted for in the State Implementation Plan.
- **Greenhouse Gas (GHG).** Address general impacts of motorized recreation on GHG emissions.
- **Biological Resources.** Address general impacts of motorized recreation on loss of surface soils and vegetation and trash. Include direct, indirect, and cumulative impacts to all wildlife and habitat, and measures to avoid impacts. Discuss HCP's consistency with other HCPs or recovery plans in the area. Address invasive species impacts and impacts to steelhead and leatherback sea turtle. Address other protected species not covered in the HCP. Take into account the impacts of climate change and dogs off leash on covered species. Incorporate findings of USFWS 2017 report to improve protections for SNPL and CLTE. Address impacts from dust control mitigation on increased vegetation that attracts predators, threatening endangered species. Address sand density in preferred nesting habitat assessment. Take into account injured birds in take totals. Apply a correction factor for detection of juvenile and adult SNPL mortality caused by vehicle strikes. Express losses to take of SNPL eggs, chicks, and juveniles as adult equivalents to better identify cumulative impacts. Address nighttime vehicle threat to juvenile and adult SNPL. Consider rates of sea level rise in impact analysis for SNPL habitat. Address impacts of fertilizer used for revegetation projects.
- **Cultural Resources.** Describe tribal consultation process, address Indian sacred sites that exist in the project area, consult with California Native American tribes affiliated with the

geographic area per SB 18 and AB 52, particularly in regard to dust mitigation projects and planning.

- **Hydrology and Water Quality.** Address general impacts of motorized recreation from oil and gas spills. Describe the drainage patterns in the area, including the 50- and 100-year flood plains. Address water quality and flow rates of Oso Flaco Lake and Arroyo Grande Creek.
- **Land Use and Planning.** Discuss project consistency with objectives of federal, state, tribal, or local land use plans, policies, and controls in the plan area.
- **Environmental Justice**. The environmental document should include an evaluation of environmental justice populations within the geographic scope of the plan area.
- **Recreation.** Consider a range of recreation opportunity including no loss in recreation opportunity and more restriction to vehicle use. Evaluate night riding impacts.
- **Alternatives.** Evaluate all reasonable alternatives that fulfill project's purpose and need in detail and protect imperiled wildlife and health of nearby communities. Include a clear discussion of reasons for elimination of any alternatives not discussed in detail. Include alternatives with expanded SNPL and CLTE exclosures and permanent exclosures. Consider an alternative area for permanent fences, alternative access during wet season, alternative areas for off-highway vehicle (OHV) use in non-sensitive areas, riding closure during breeding season, staggering use of OHV days and hours, and off-site mitigation for CLTE/SNPL as alternatives. Establish visitor capacity limits and consider as an alternative. Address return of the seasonal exclosure boundary to post marker (Post) 7 in compliance with 2003 Settlement Agreement. NEPA analysis must provide a co-equal evaluation of alternatives with the proposed action.
- **Cumulative Impacts.** Evaluate the effects of other past, present, and reasonably foreseeable actions and consider those impacts on a cumulative level. Discuss future changes that may affect covered species and their habitats. Evaluate all potential Oceano Dunes SVRA operations and configurations and consider future uncertainties due to temporary Coastal Development Permit and Public Works Plan being developed.

ATTACHMENT 1: NOTICES AND MEETING ADVERTISEMENTS

- Notice of Completion and Environmental Document Transmittal
- Notice of Preparation and Public Scoping Meeting

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

2018011012

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Oceano Dunes District Habitat Conservation Plan EA/EIR or EIS/EIR

Lead Agency: CDPR, OHMVR Division, Oceano Dunes District | Contact Person: Ronnie Glick
Mailing Address: 340 James Way, Ste. 270 | Phone: 805-773-7170
City: Pismo Beach | Zip: 93449 | County: San Luis Obispo

Project Location: County: San Luis Obispo | City/Nearest Community: Oceano, Grover Beach, Pismo Beach
Cross Streets: Grand Ave, Pier Ave, Oso Flaco Road | Zip Code: 93445
Longitude/Latitude (degrees, minutes and seconds): 35 ° 03 ′ 21 ″ N / 120 ° 37 ′ 3 ″ W Total Acres: Approx. 5,005
Assessor's Parcel No.: Project covers many parcels | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: SR 1; US Highway 101 | Waterways: Pismo/Meadow/Oso Flaco/Arroyo Grande Creeks
Airports: Oceano County Airport | Railways: Amtrak | Schools: various

Document Type:

CEQA: ☒ NOP ☐ Draft EIR | NEPA: ☐ NOI | Other: ☒ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☐ Mit Neg Dec Other: ☐ FONSI

Local Action Type:

Governor's Office of Planning & Research
JAN 09 2018
STATE CLEARINGHOUSE

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: Habitat Conserva

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees ☐ Transportation: Type
☐ Commercial: Sq.ft. Acres Employees ☐ Mining: Mineral
☐ Industrial: Sq.ft. Acres Employees ☐ Power: Type MW
☐ Educational: ☐ Waste Treatment: Type MGD
☐ Recreational: ☐ Hazardous Waste: Type
☐ Water Facilities: Type MGD ☒ Other: Resource Management

Project Issues Discussed in Document:

☐ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☐ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☒ Coastal Zone ☐ Noise ☐ Solid Waste ☐ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☐ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Various including Agriculture, Recreation, and Open Space/Resource Conservation

Project Description: *(please use a separate page if necessary)*

The California Department of Parks and Recreation (CDPR) proposes to prepare an HCP to support its application for a 25-year incidental take permit (ITP) under the federal Endangered Species Act for park units managed by the Oceano Dunes District. The HCP area covers 5,005 acres of largely undeveloped public lands. The ITP would cover all lawful activities for which CDPR has responsibility within the HCP area that could result in take of covered species, including public use, recreation management, natural and cultural resources management, and park/beach management. The HCP addresses the following: species: western snowy plover, California least tern, California red-legged frog, tidewater goby, marsh sandwort, La Graciosa thistle, Nipomo Mesa lupine, Gambel's watercress, surf thistle, and beach spectaclepod.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

X	Air Resources Board		Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
	California Highway Patrol		Pesticide Regulation, Department of
X	Caltrans District # 5		Public Utilities Commission
	Caltrans Division of Aeronautics	X	Regional WQCB # 3
	Caltrans Planning		Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
X	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of	X	State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	X	SWRCB: Water Quality
	Energy Commission		SWRCB: Water Rights
X	Fish & Game Region #4		Tahoe Regional Planning Agency
	Food & Agriculture, Department of		Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of		Water Resources, Department of
	General Services, Department of		
	Health Services, Department of	S	Other: U.S. Fish and Wildlife Service
	Housing & Community Development		Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date January 11, 2018 Ending Date March 12, 2018

Lead Agency (Complete if applicable):

Consulting Firm: MIG | TRA Environmental Sciences
Address: 545 Middlefield Road, Suite 200
City/State/Zip: Menlo Park, CA 94025
Contact: Kate Werner
Phone: 831-601-4700

Applicant: OHMVR Division, Oceano Dunes District
Address: 340 James Way, Ste. 270
City/State/Zip: Pismo Beach, CA 93449
Phone: 805-773-7170

Signature of Lead Agency Representative: _____ **Date:** 1-9-2018

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Revised 2010

NOTICE OF PREPARATION AND PUBLIC SCOPING MEETING

Date: January 9, 2018

To: California State Clearinghouse, state Responsible and Trustee Agencies, federal agencies, County Clerks, local jurisdictions, and interested individuals and organizations

Subject: **Notice of Preparation and Public Scoping Meeting for the California Department of Parks and Recreation, Oceano Dunes District Habitat Conservation Plan Joint EA/EIR or Joint EIS/EIR**

Lead Agency: U.S. Fish and Wildlife Service (Service) is Lead Agency under the National Environmental Policy Act (NEPA) for the EA or EIS; California Department of Parks and Recreation (CDPR) is Lead Agency under the California Environmental Quality Act (CEQA) for the EIR.

Applicant: CDPR, Oceano Dunes District, 340 James Way, Ste. 270, Pismo Beach, CA 93449

Project Location: Pismo State Beach, Oceano Dunes State Vehicular Recreation Area, and Pismo Lake in San Luis Obispo County, California

Project Description: CDPR proposes to prepare a Habitat Conservation Plan and submit an application for an incidental take permit under the federal Endangered Species Act. A brief description of the project, including its location and probable environmental effects, is attached. An Initial Study was not prepared for the project because CDPR has determined that an EIR will be prepared for the project.

The purpose of this Notice of Preparation (NOP) and Public Scoping Meeting is to 1) describe the proposed project (the Project) and possible alternatives; 2) advise other federal and State agencies and the public of CDPR's and the Service's intent to prepare a joint EA/EIR or EIS/EIR; 3) announce the initiation of a 60-day public scoping period; and 4) obtain suggestions and information on the scope of issues and alternatives to be included in the EA/EIR or EIS/EIR. Comment is requested from state Responsible and Trustee Agencies, federal agencies, and any other local agency, person, or organization concerned with the environmental effects of the project.

Corresponding with the NOP, a Notice of Intent (NOI) is being issued by the Service for publication in the Federal Register in compliance with Section 1501.7 of NEPA. As provided for under CEQA Guideline 15170, "a lead agency may work with a federal agency to prepare a joint environmental document." The NOI and NOP are being released simultaneously for a 60-day public review period, which commences on January 11, 2018 and ends on March 12, 2018. The NOI and NOP provide parallel opportunities for early agency and public input and comment.

Responses may be to one Notice or the other, but need not be to both. All information and comments received in response to the NOP and NOI must be considered in preparation of the EIS/EA or EIS/EIR as a whole.

Please send your written response by the earliest possible date, but no later than 5 PM on March 12, 2018 to Mr. Ronnie Glick, Senior Environmental Scientist, California Department of Parks and Recreation, Oceano Dunes District, 340 James Way, Ste. 270, Pismo Beach, CA 93449 or to Ronnie.Glick@parks.ca.gov (enter "Oceano Dunes District HCP NOP" in the 'Subject' line). Agency responses should include the name of a contact person at the agency. The Service and CDPR encourage all interested agency representatives, organizations, and individuals to attend the public scoping meeting for the Project's Draft EA/EIR or EIS/EIR:

Wednesday, February 7, 2018
Ramona Garden Park Center
993 Ramona Avenue
Grover Beach, CA 93433
6 PM – 8 PM

Signature: _____ Date: __January 9, 2018_____

Title: ___Environmental Compliance Manager____

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

OCEANO DUNES DISTRICT HABITAT CONSERVATION PLAN (HCP)

PROJECT DESCRIPTION

The California Department of Parks and Recreation (CDPR), Oceano Dunes District manages Pismo State Beach, Pismo Lake, and Oceano Dunes State Vehicular Recreation Area (SVRA). These state park units provide coastal recreation to an estimated two million visitors annually. The parklands are home to multiple wildlife and plant species, some of which are protected under the federal Endangered Species Act (FESA). CDPR implements an ongoing conservation program to manage these special-status species and their habitats. CDPR is preparing an HCP, which is required under the federal Endangered Species Act (ESA) for issuance of an incidental take permit (ITP).

Project Location and Site Description

The Oceano Dunes District HCP area includes Pismo State Beach, Oceano Dunes SVRA, and Pismo Lake located in San Luis Obispo County, California (Map 1, HCP Area). The HCP area comprises 5,005 acres 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. Primary access to the area is via U.S. Highway 101 and State Route 1.

Pismo State Beach and Oceano Dunes SVRA comprise approximately 25 percent of the 18-mile linear shoreline of the Guadalupe-Nipomo Dunes complex, which extends from Pismo Beach south to Point Sal in Santa Barbara County. The Guadalupe-Nipomo Dunes complex is a relatively intact coastal dune and dune scrub ecosystem varying in width from two to five miles.

Visitors come to enjoy wide-ranging pursuits including off-highway vehicle (OHV) (e.g., 4x4, all-terrain vehicle [ATV], motorcycle, and sandrail) recreation, camping, pedestrian activities, dog-walking, horseback riding, bicycling, golfing, fishing, boating/surfing, and aerial/wind driven activity. To support this high level and diversity of visitation, the Oceano Dunes District has an extensive operational program (Map 2, Land Use Facilities).

Proposed Project

CDPR management and operation of Pismo State Beach, Pismo Lake, and Oceano Dunes SVRA may negatively affect the federally-threatened western snowy plover (*Charadrius nivosus nivosus*) and California red-legged frog (*Rana draytonii*), and the federally-endangered California least tern (*Sternula antillarum browni*), tidewater goby (*Eucyclogobius newberryi*), marsh sandwort (*Arenaria paludicola*), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), Nipomo Mesa lupine (*Lupinus nipomensis*), and Gambel's watercress (*Nasturtium* [*Rorippa*] *gambelii*), as well as two plant species solely listed under the California Endangered Species Act (surf thistle [*Cirsium rhothophilum*] and beach spectaclepod [*Dithyrea maritima*]).

CDPR proposes the Oceano Dunes District HCP to support its application for a 25-year federal ITP under FESA Section 10(a)(1)(B). Covered activities under this HCP include all lawful activities for which CDPR has responsibility within the covered lands that could result in take of covered species. These activities include, but are not limited to, public use/recreation management,

natural resources management, and park/beach management. The HCP is designed to accommodate recreational use within the covered parks while protecting and benefiting numerous populations of threatened and endangered species occurring within those parks.

CDPR would manage the HCP area for covered species largely in the same manner it has been for over a decade. The management actions include utilizing protective fencing, monitoring, habitat restoration, invasive plant and animal control, habitat monitoring, and water quality monitoring and improvements. The proposed conservation program includes conservation measures (i.e., actions taken to avoid or minimize take, compensate for loss of habitat, or provide for the conservation of covered species) to achieve the biological goals and objectives set forth in the HCP. The measures include avoidance and minimization measures (AMMs), habitat enhancement, habitat restoration, habitat creation, and population enhancement.

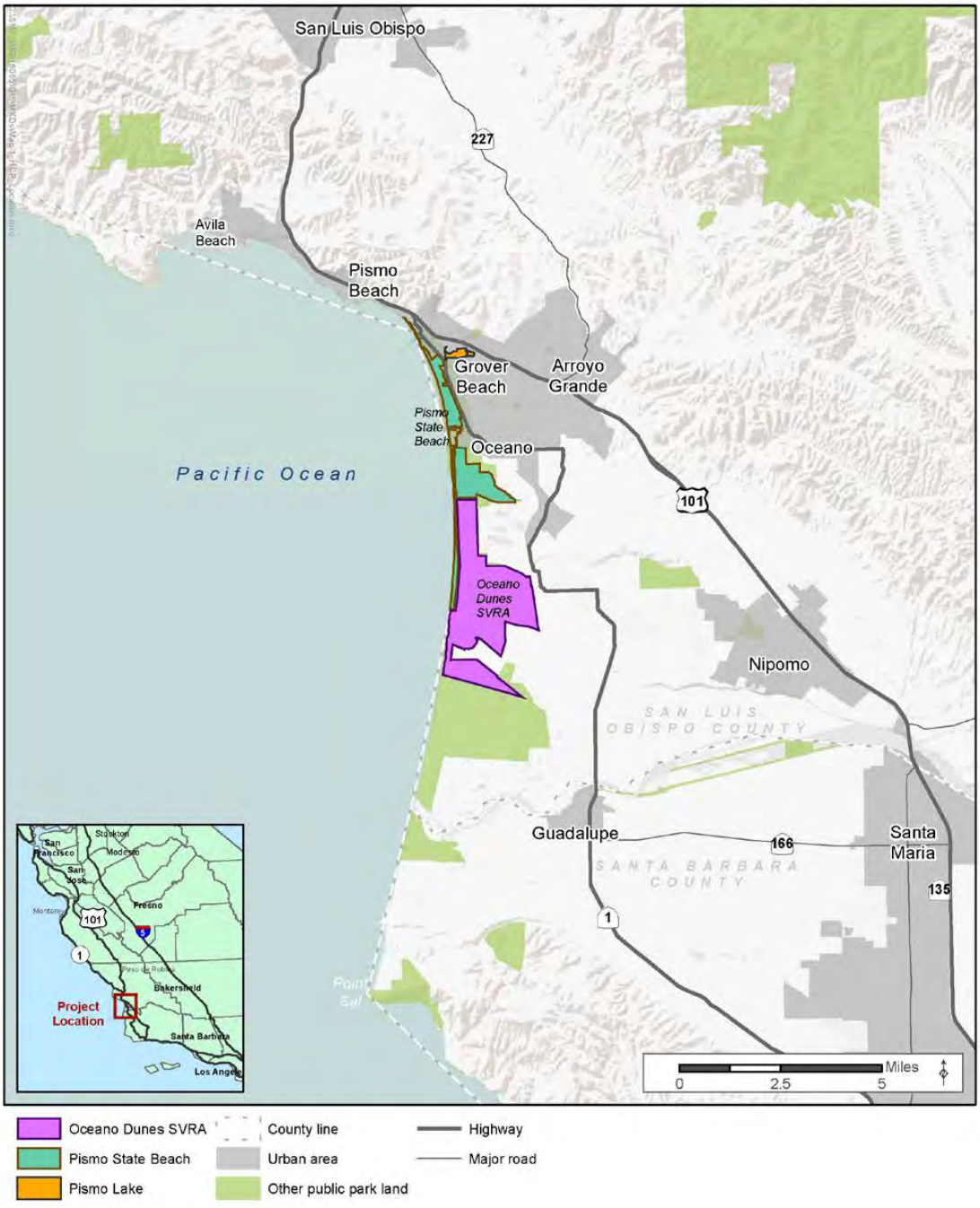
Alternatives

The EA/EIS or EIS/EIR will examine a reasonable range of alternatives to the proposed project. The alternatives will be defined based on the EA/EIR or EIS/EIR analysis, public scoping meeting, and comments received on the NOP and NOI. A detailed description of the impacts of the proposed action and each alternative will be included in the EA/EIR or EIS/EIR. Several alternatives will be considered and analyzed, representing varying levels of conservation and impacts. A No Action alternative will be included in the analysis of the alternatives considered.

Probable Environmental Effects

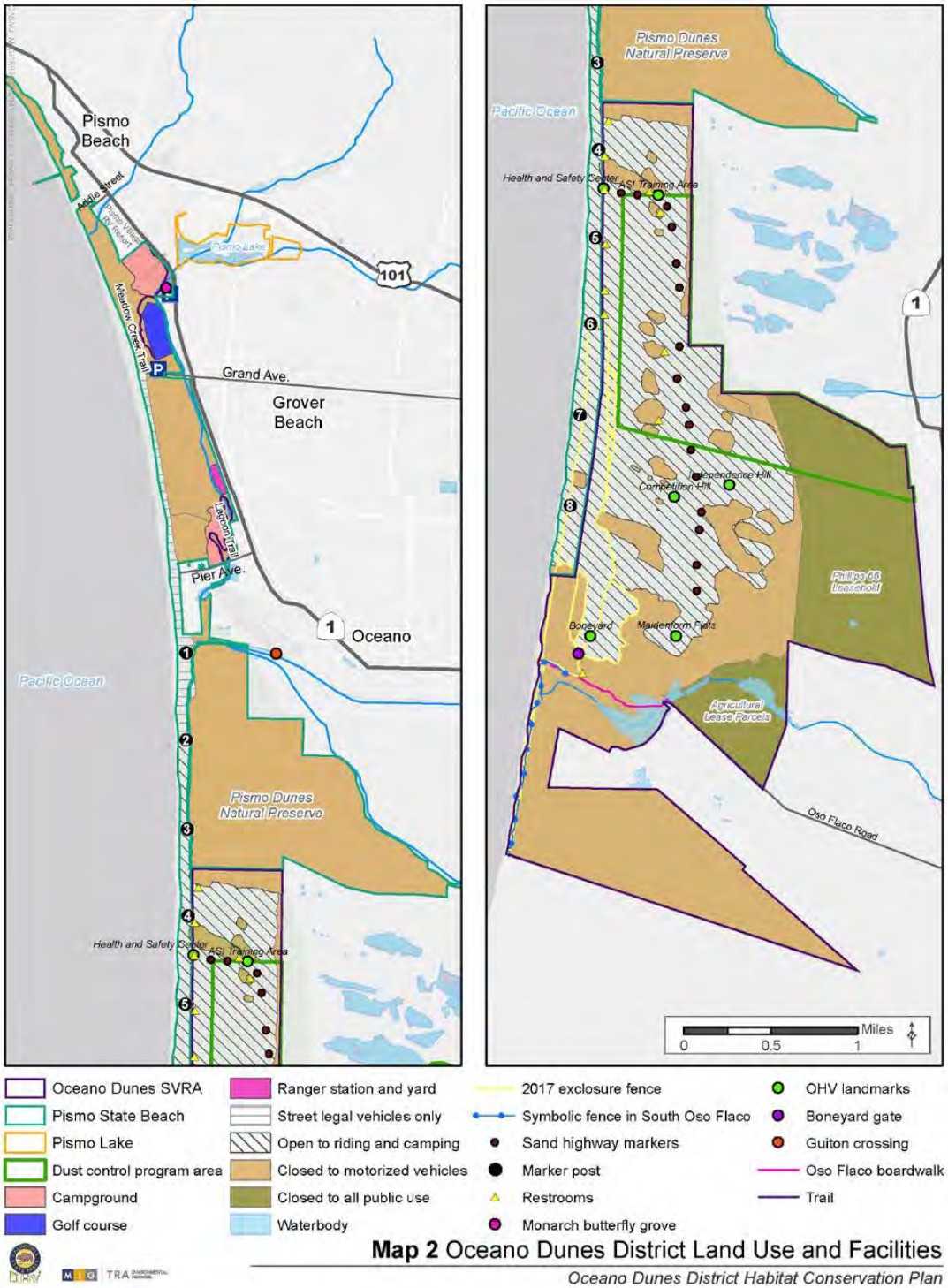
The proposed HCP is intended to benefit covered species in the HCP area by protecting and, where appropriate, enhancing their populations. There is potential for the HCP covered activities to result in unintentional take (e.g., harm, harassment, injury, or death, etc.) of covered species, which would be a significant impact. Park management under the HCP may modify the seasonal exclosure fencing to expand recreational access to beach areas currently closed during the western snowy plover and California least tern breeding season. The HCP does not propose changes to daily limits on the number of street legal and OHV vehicles at Pismo State Beach and Oceano Dunes SVRA as established by an existing Coastal Development Permit.

The proposed HCP may have indirect impacts on air quality, greenhouse gas emissions, cultural and tribal resources, and hydrology/water quality. Several areas of potential concern are likely to be found less than significant given the non-developmental nature of the proposed project and minimal change in visitor use and park operations from baseline operations (e.g., aesthetics, hazards, public services, recreation, traffic, and utilities). Other environmental issues may not apply due to the absence of a resource or the nature of the project site (e.g., agricultural/ forestry, mineral resources, and population/housing). The final scope of impact analyses conducted for the EA/EIR or EIS/EIR will be dependent upon the outcomes of the NOP public review process.



Map 1 HCP Area and Vicinity

Oceano Dunes District Habitat Conservation Plan

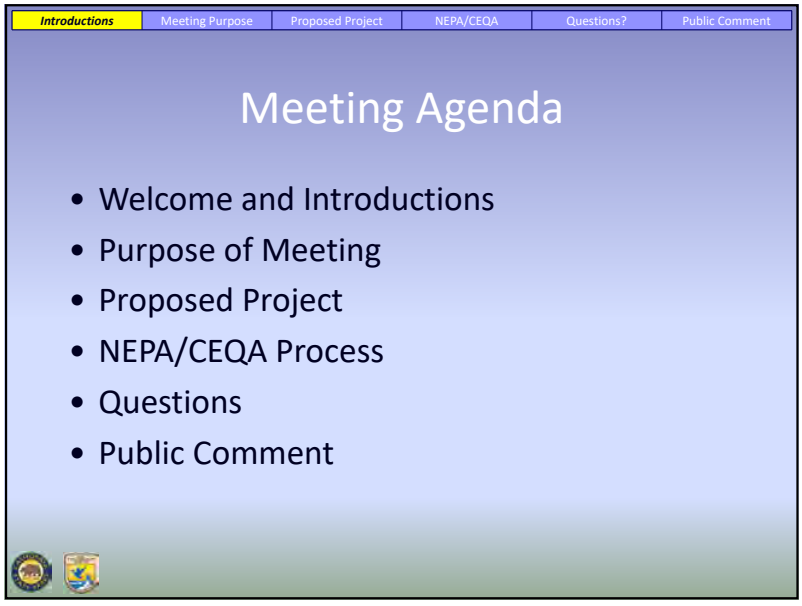


Map 2 Oceano Dunes District Land Use and Facilities

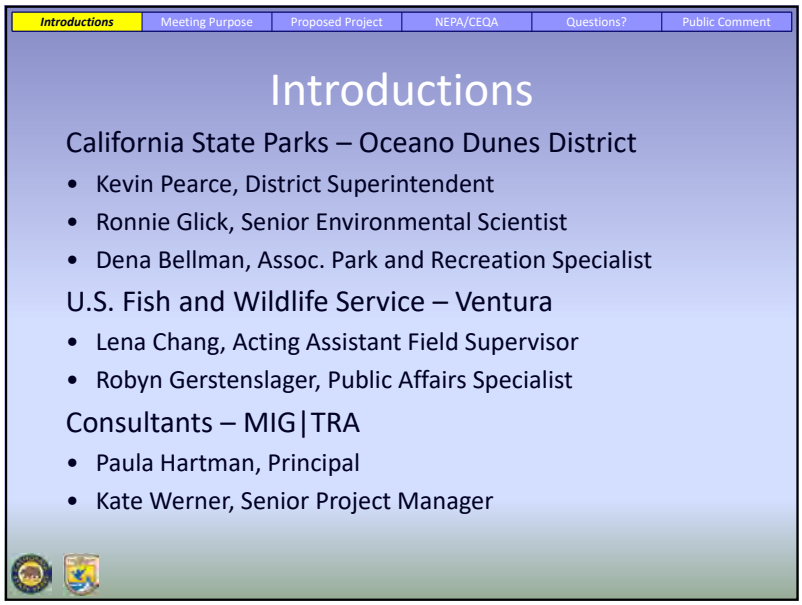
Oceano Dunes District Habitat Conservation Plan

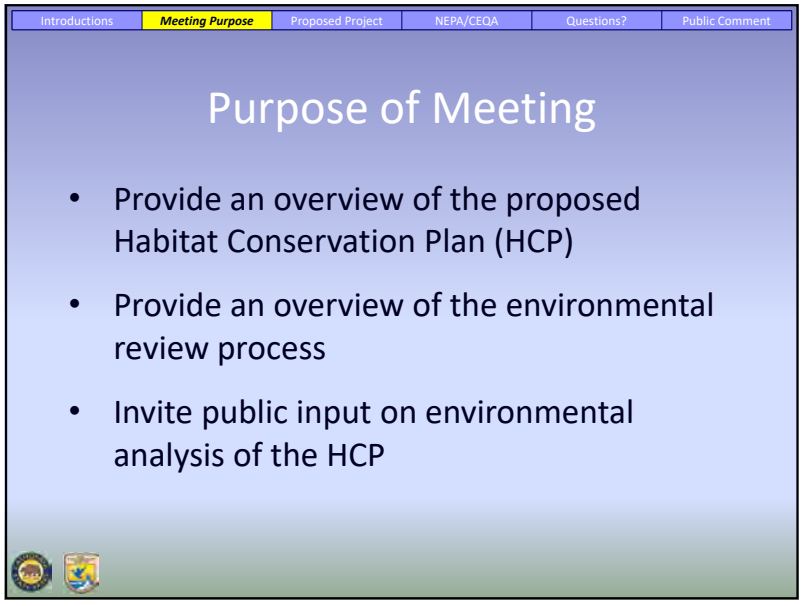
ATTACHMENT 2: SCOPING MEETING PRESENTATION

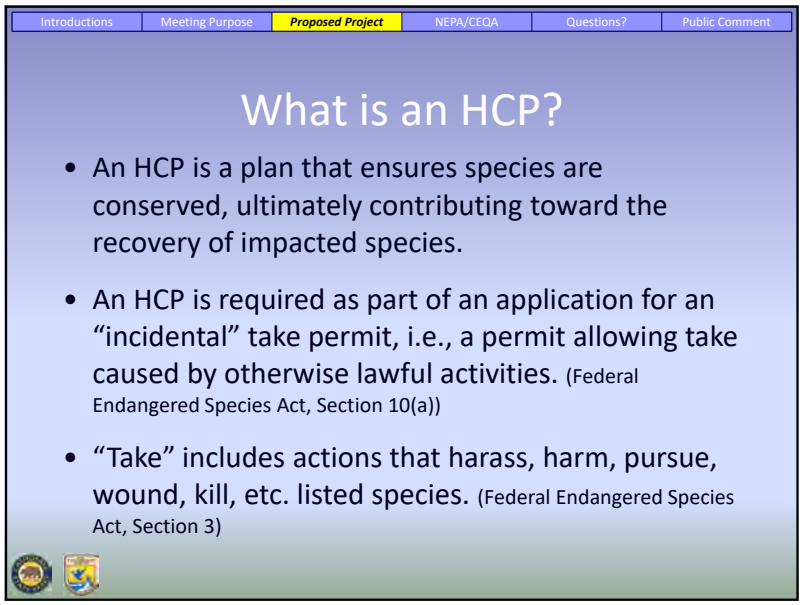

Oceano Dunes District
Habitat Conservation Plan NEPA/CEQA
Public Scoping and Open House
Welcome!
February 7, 2018
California State Parks
U.S. Fish and Wildlife Service

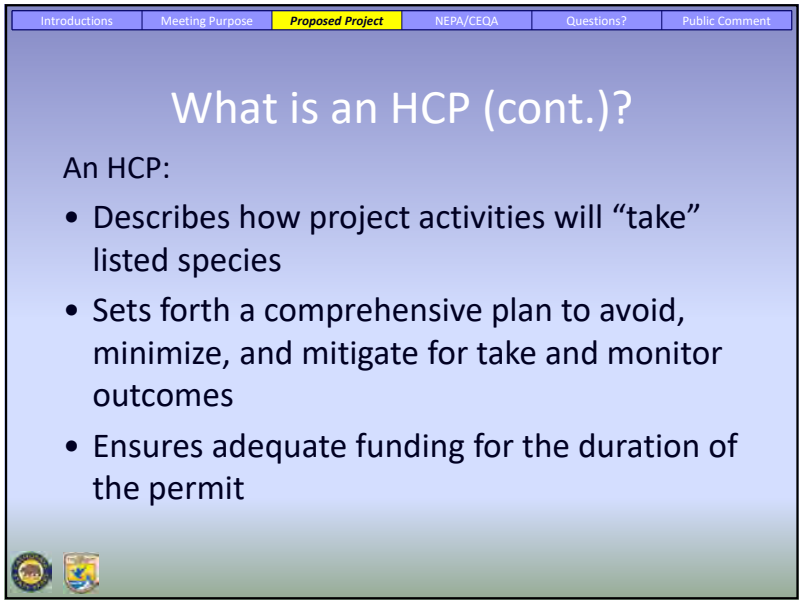

Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
Meeting Agenda
• Welcome and Introductions
• Purpose of Meeting
• Proposed Project
• NEPA/CEQA Process
• Questions
• Public Comment

1


Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
Introductions
California State Parks – Oceano Dunes District
• Kevin Pearce, District Superintendent
• Ronnie Glick, Senior Environmental Scientist
• Dena Bellman, Assoc. Park and Recreation Specialist
U.S. Fish and Wildlife Service – Ventura
• Lena Chang, Acting Assistant Field Supervisor
• Robyn Gerstenslager, Public Affairs Specialist
Consultants – MIG|TRA
• Paula Hartman, Principal
• Kate Werner, Senior Project Manager


Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
Purpose of Meeting
• Provide an overview of the proposed Habitat Conservation Plan (HCP)
• Provide an overview of the environmental review process
• Invite public input on environmental analysis of the HCP


Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
What is an HCP?
• An HCP is a plan that ensures species are conserved, ultimately contributing toward the recovery of impacted species.
• An HCP is required as part of an application for an "incidental" take permit, i.e., a permit allowing take caused by otherwise lawful activities. (Federal Endangered Species Act, Section 10(a))
• "Take" includes actions that harass, harm, pursue, wound, kill, etc. listed species. (Federal Endangered Species Act, Section 3)


Introductions
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What is an HCP (cont.)?
An HCP:
• Describes how project activities will "take" listed species
• Sets forth a comprehensive plan to avoid, minimize, and mitigate for take and monitor outcomes
• Ensures adequate funding for the duration of the permit

Introductions | Meeting Purpose | **Proposed Project** | NEPA/CEQA | Questions? | Public Comment

What is *this* HCP?

A collaborative and comprehensive strategy to balance recreational opportunities with conservation of rare wildlife, plants, and their habitats in the Oceano Dunes District, which includes:

- Pismo State Beach
- Pismo Lake
- Ocean Dunes SVRA

Permit term is 25 years

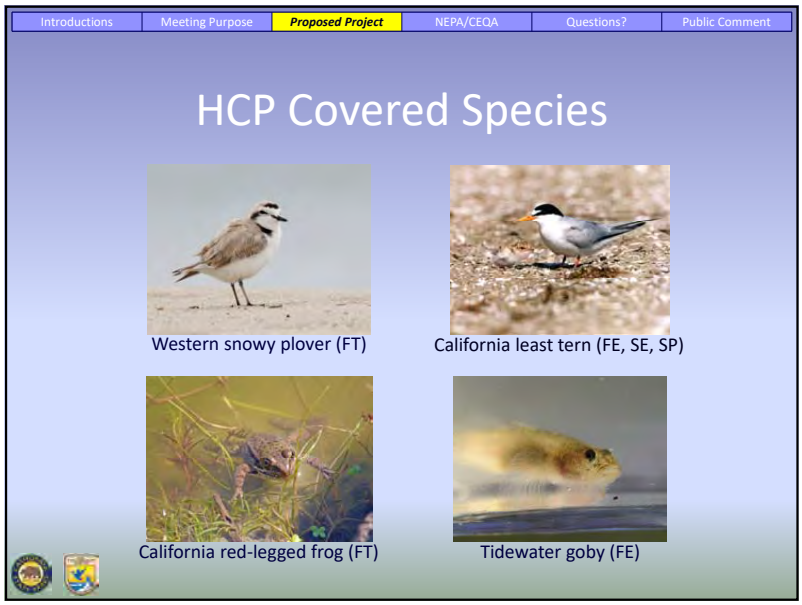
Introductions | Meeting Purpose | **Proposed Project** | NEPA/CEQA | Questions? | Public Comment

HCP Covered Park Units

Total area covered 5,005 acres

- Pismo State Beach
  - 1,445 acres natural and developed
  - Pismo Dunes Natural Preserve 694-acre sub-unit
- Oceano Dunes SVRA
  - 3,490 acres
- Pismo Lake
  - 70 acres non-classified

4


Introductions
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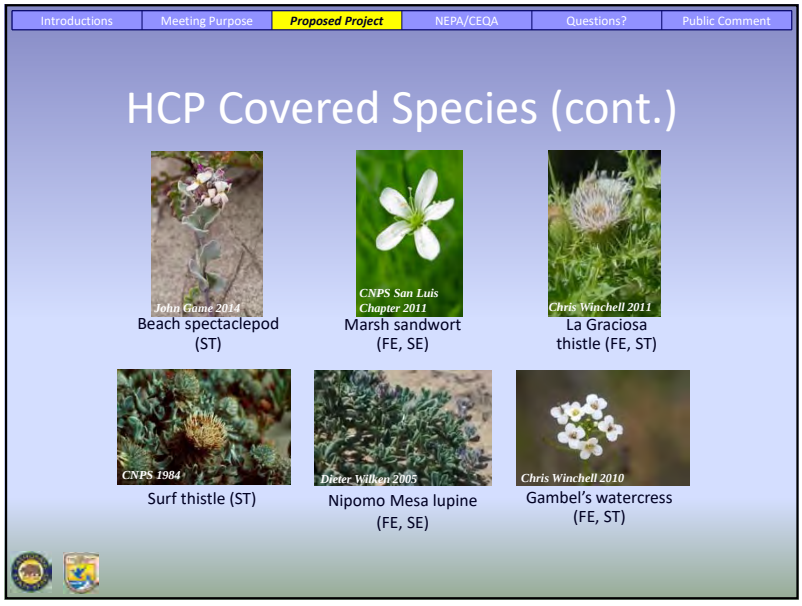
Public Comment
HCP Covered Species
Western snowy plover (FT)
California least tern (FE, SE, SP)
California red-legged frog (FT)
Tidewater goby (FE)


Introductions
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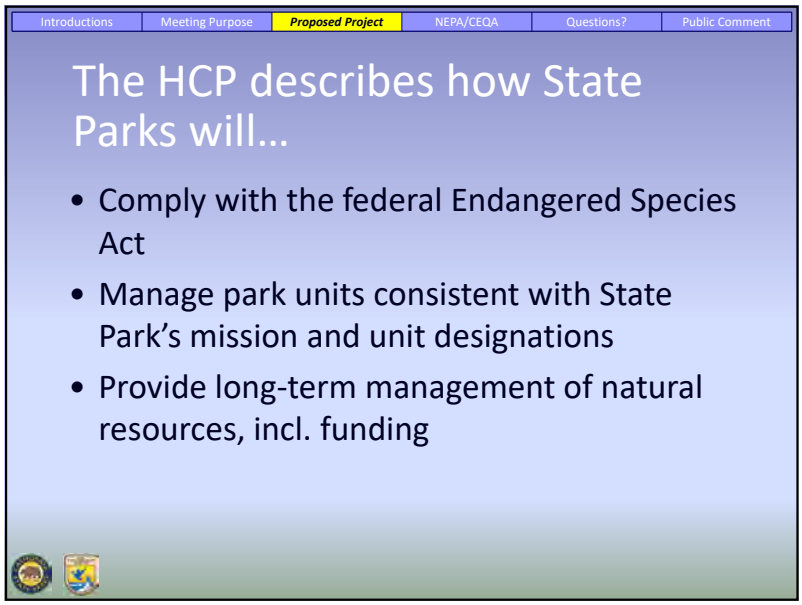
HCP Covered Species (cont.)
John Game 2014
Beach spectaclepod (ST)
CNPS San Luis Chapter 2011
Marsh sandwort (FE, SE)
Chris Winchell 2011
La Graciosa thistle (FE, ST)
CNPS 1984
Surf thistle (ST)
Dieter Wilken 2005
Nipomo Mesa lupine (FE, SE)
Chris Winchell 2010
Gambel's watercress (FE, ST)

5


Introductions
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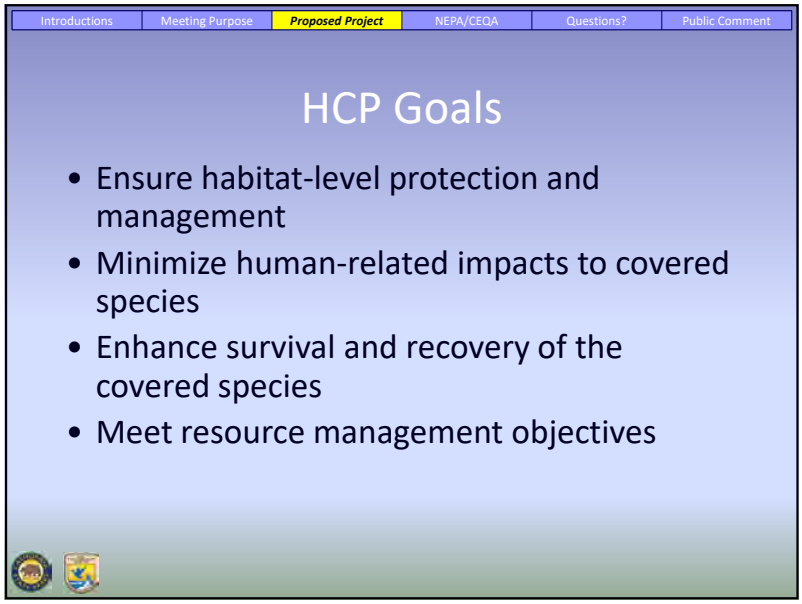
The HCP describes how State Parks will…
• Comply with the federal Endangered Species Act
• Manage park units consistent with State Park's mission and unit designations
• Provide long-term management of natural resources, incl. funding


Introductions
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Public Comment
HCP Goals
• Ensure habitat-level protection and management
• Minimize human-related impacts to covered species
• Enhance survival and recovery of the covered species
• Meet resource management objectives

Introductions | Meeting Purpose | **Proposed Project** | NEPA/CEQA | Questions? | Public Comment

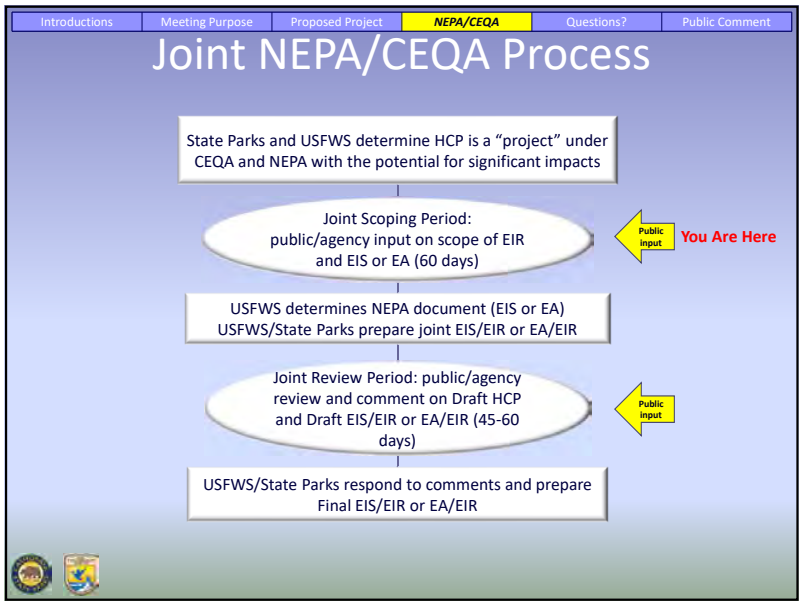
HCP Covered Activities

- Visitor activities
- Resource management
- Maintenance
- Visitor services
- Other activities, e.g., creek crossings, exclosure adjustments, dust control, and special projects

Introductions | Meeting Purpose | **Proposed Project** | NEPA/CEQA | Questions? | Public Comment

HCP Area Land Uses and Facilities

7


Introductions
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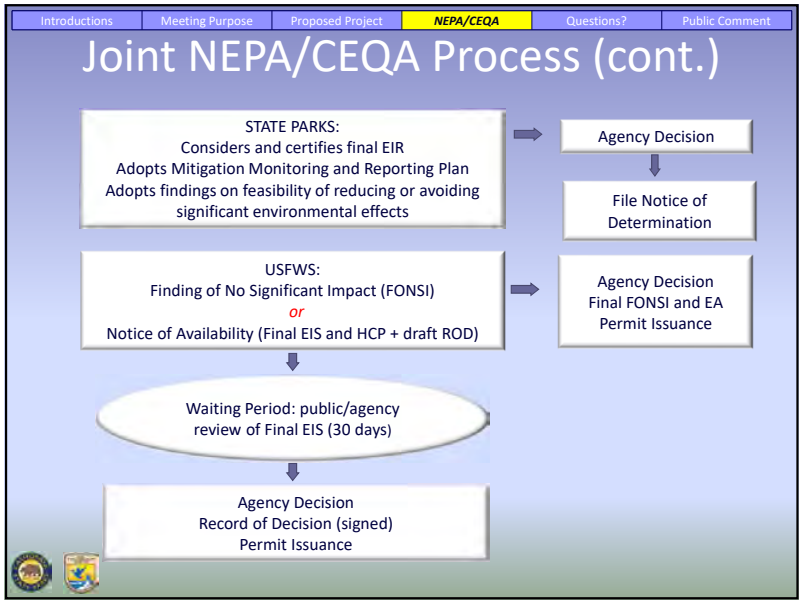
Questions?
Public Comment
Joint NEPA/CEQA Process
State Parks and USFWS determine HCP is a "project" under CEQA and NEPA with the potential for significant impacts
Joint Scoping Period: public/agency input on scope of EIR and EIS or EA (60 days)
Public input
You Are Here
USFWS determines NEPA document (EIS or EA)
USFWS/State Parks prepare joint EIS/EIR or EA/EIR
Joint Review Period: public/agency review and comment on Draft HCP and Draft EIS/EIR or EA/EIR (45-60 days)
Public input
USFWS/State Parks respond to comments and prepare Final EIS/EIR or EA/EIR


Introductions
Meeting Purpose
Proposed Project
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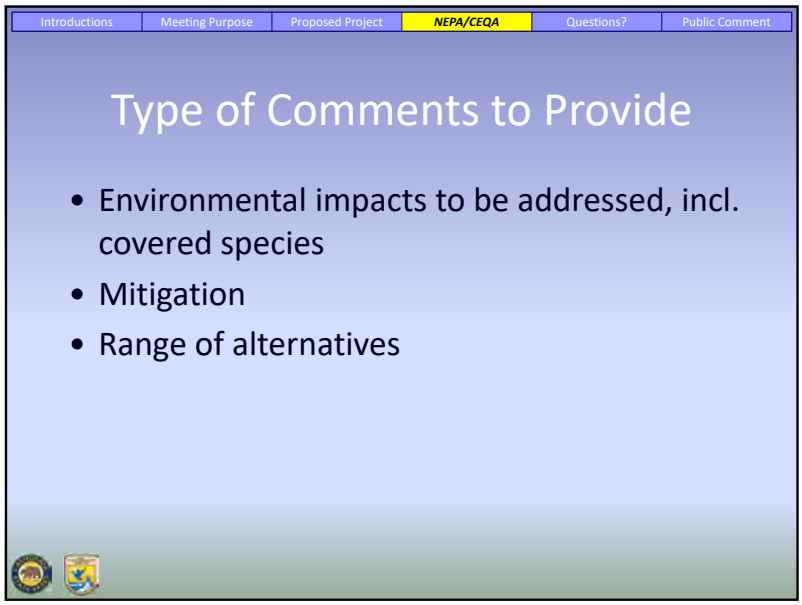
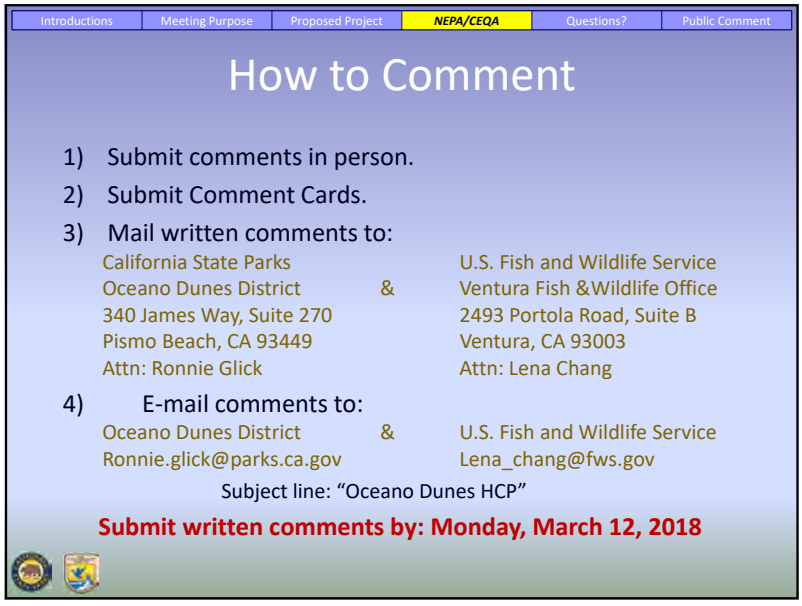
Questions?
Public Comment
Joint NEPA/CEQA Process (cont.)
STATE PARKS:
Considers and certifies final EIR
Adopts Mitigation Monitoring and Reporting Plan
Adopts findings on feasibility of reducing or avoiding significant environmental effects
Agency Decision
File Notice of Determination
USFWS:
Finding of No Significant Impact (FONSI)
or
Notice of Availability (Final EIS and HCP + draft ROD)
Agency Decision
Final FONSI and EA
Permit Issuance
Waiting Period: public/agency review of Final EIS (30 days)
Agency Decision
Record of Decision (signed)
Permit Issuance

8


Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
Type of Comments to Provide
• Environmental impacts to be addressed, incl. covered species
• Mitigation
• Range of alternatives


Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
How to Comment
1) Submit comments in person.
2) Submit Comment Cards.
3) Mail written comments to:
California State Parks
Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449
Attn: Ronnie Glick
&
U.S. Fish and Wildlife Service
Ventura Fish &Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003
Attn: Lena Chang
4) E-mail comments to:
Oceano Dunes District
Ronnie.glick@parks.ca.gov
&
U.S. Fish and Wildlife Service
Lena_chang@fws.gov
Subject line: "Oceano Dunes HCP"
Submit written comments by: Monday, March 12, 2018

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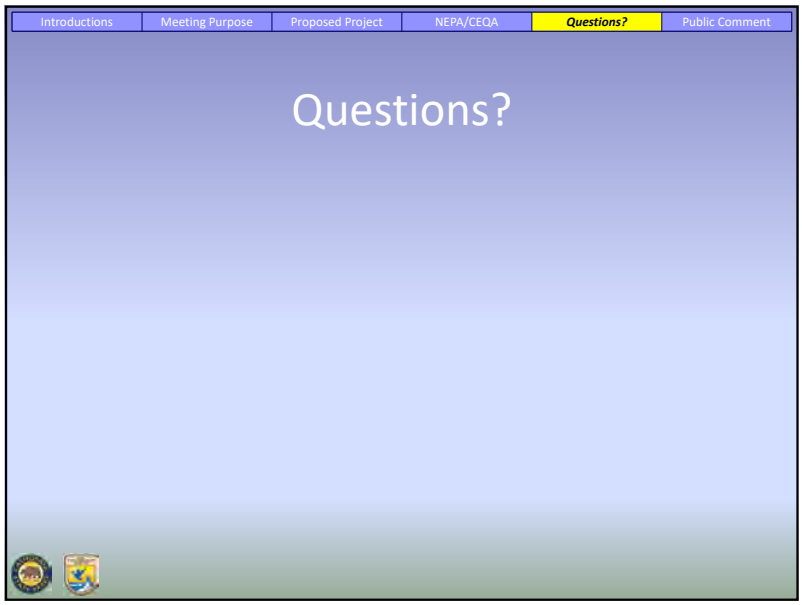
Introductions
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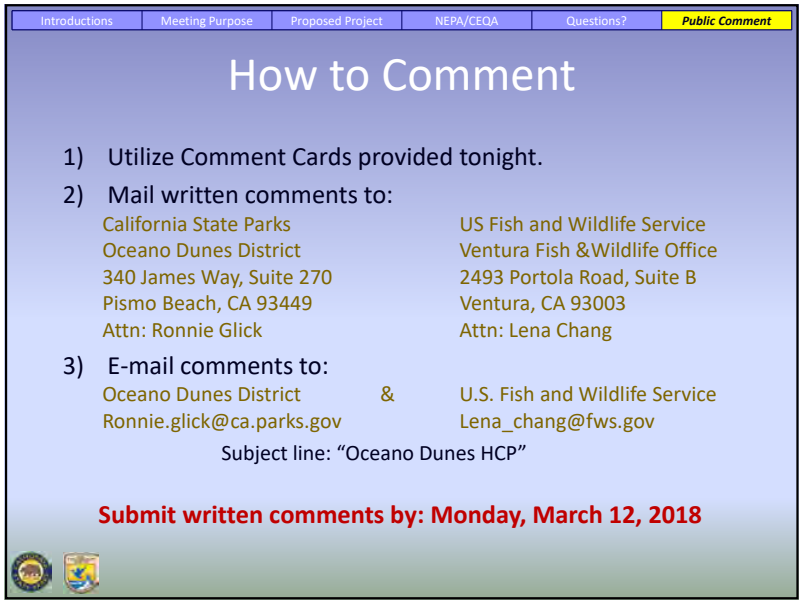
Questions?


Introductions
Meeting Purpose
Proposed Project
NEPA/CEQA
Questions?
Public Comment
How to Comment
1) Utilize Comment Cards provided tonight.
2) Mail written comments to:
California State Parks
Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449
Attn: Ronnie Glick
US Fish and Wildlife Service
Ventura Fish &Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003
Attn: Lena Chang
3) E-mail comments to:
Oceano Dunes District
Ronnie.glick@ca.parks.gov
&
U.S. Fish and Wildlife Service
Lena_chang@fws.gov
Subject line: "Oceano Dunes HCP"
Submit written comments by: Monday, March 12, 2018

ATTACHMENT 3: SCOPING MEETING ATTENDANCE RECORD

2/7/18 OD HCP Scoping Meeting

NAME	ADDRESS	PHONE	EMAIL
Amber Clark	435 Coach Rd AG	805·710·4414	alclark81@gmail.com
NANCY & LA GRILLE			b52Lagrille@gmail.com
RON RAYBORNE	P.O. Box 1242 Pismo Beach		DREADNOT@GMAIL.COM
DEBORAH FIALKOWSKA	1364 TRAIL VIEW PL NIPOMO, CA 93444	805 343-1545	dafesq@aol.com
STACY NORMAN	539 Shadow Cove Arroyo Grande 93420	235-1562	
Zette Harbour	785 Quintana #126 Morro Bay 93442	805/441-6688	zetteharbour@gmail.com
Greg Haas	1411 Marsh St, Ste 205 SLO 93401	805 546-8348	greg.haas@mail.house.gov
Nick Calanne	1329 Atlantic City Ave Grover Beach CA	559 786 8286	PismoDuneRiders@Gmail.com

2/7/18 OD HCP Scoping Meeting

NAME	ADDRESS	PHONE	EMAIL
Rachelle Toti			
Fred Collis			fcollis

2/7/18 OD HCP Scoping Meeting

NAME	ADDRESS	PHONE	EMAIL
Ginger Schenk	1902 Poplar St Arroyo Grande CA 93420	805 489.3805	gingerschenk@sbcglobal.NET
Jerry Stanley	580 Pinecone Way AG 93420	805 489 9924	jerry_stanley@sbcglobal.net
Tamar Carmona + Rocko O Rienecke	1340 21st St Oceano, CA 93445	818 667 0989	Tamar.carmona@gmail.com
Doug GEORGE		831-332-3759	dgeorge77@gmail.com
TRAVIS JOHNSON	1815 [illegible] DR. OCEANO, CA. 93445	[illegible]-9092	
Aruna Prabhala	1212 Broadway [illegible] Oakland, CA [illegible]		aprabhala@biologicaldiversity.org
Dorothy [illegible]	PO Box 64 Arroyo Grande, CA 93421	(805)458-3585	[illegible]@gmail.[illegible]
Kimberly Perez	1110 Del Norte Way San Luis Obispo, CA 93405	(805) 748-1425	president@pacificwildlifecare.org

2/7/18 OD HCP Scoping Meeting

NAME	ADDRESS	PHONE	EMAIL
Lyndi Love-Haning			lovehaning@yahoo.com
Sean Hayes			SeanHayes7Home@yahoo.com

ATTACHMENT 4: SCOPING MEETING ORAL COMMENTS AND QUESTIONS

California State Parks OHMVR Division and U.S. Fish and Wildlife Service
Oceano Dunes HCP Joint NEPA/CEQA Scoping Meeting
February 7, 2018
6:00 - 8:00 PM

Meeting opened with a powerpoint presentation by Ronnie Glick, Senior Environmental Scientist, California State Park and was followed by a general question and answer period. The following are questions and comments made by those in attendance.

Q: What is the reason for take if trying to save species? Is there a way to couple education with this process?

Response: Education is a component of existing park operations. Oceano Dunes has a successful program for managing species. HCP sets in stone the conservation effort and mitigation.

Comment #1: Need to increase education effort. Consistent distribution of brochures.

Q: Is this the same process for steelhead? Should steelhead be included in HCP?

Response: NOAA did not feel it necessary Oceano Dunes HCP to cover steelhead due to the low likelihood for take.

Q: Are there other species that need to be addressed?

Response: The HCP is addressing the federal species only. State species will be addressed in a separate process.

Comment #2: Need updated education kiosks. Can't read information.

Q: What recommendations has USFWS made to reduce impacts of take?

Response: fencing, monitoring, speed limits, etc.

Q: What about nighttime riding?

Comment #3: Need restrictions on nighttime riding

Response: At nighttime birds stay on nests within exclosure. Nighttime impact is primarily from predation not from riding.

Q: Is predation a take?

Response: No. Take impact is defined as a human activity. Man's actions can increase predator presence such as gulls attracted to trash. Park does implement a predator control program.

Comment #4: South Oso Flaco has bare sand and no OHV use. Birds like OHV better for nesting for lack of predators. No grass area for predators to hide. Vegetation established for dust control creates area for predators to hide and can increase number of predators in area.

Response: If predators increased the park management measures would cover it.

Q: Would [injury from] a dog be considered a take?

Response: Yes, because it is associated with human use.

Comment #5: Dogs off leash is a concern. Oso Flaco docent noted dogs running off leash stating it's a problem.

Q: Does HCP cover activities of County [County land?] OHV vendors.

Response: Yes. Activities of OHV vendors would be covered by HCP.

Q: For vegetation to grow, is chemical fertilizer used? Could chemicals leach into the water?

Response: Sterile straw is used. Chemicals not used at the scale that would leach into water. Not high enough quantity used.

Comment #6: Concern about amount of fertilizer used for revegetation projects.

Q: Could money be better spent in other areas where species are thriving for off-site mitigation?

Response: That is a question that can be considered.

Comment #7: Snowy plover and least tern thriving from Lompoc and Santa Barbara coastline. Species management effort could be put into locations where species are thriving.

Q: This [USFWS Incidental Take Permit] is a federal process. Will there be a future state [Natural Community Conservation Plan] process?

Response: Yes. The hope was to do the state process at the same time. The state process is coming behind the federal process and will be subject to CEQA. The state process isn't as far along as the federal process and there is a desire not to hold up the federal process since it was well advanced.

Q: Is study done on carcasses of snowy plover or other birds?

Response: when birds are found the nature of death is recorded. Circumstances often indicate nature of death such as blunt trauma from a vehicle strike or predation. Further study is not done.

Comment #8: Dust control activity is in area of tribal resources. AB52 government to government consultation is requested because of fertilizer for dust program in cultural resource area.

Comment #9: Would like no vehicles on the beach. Consider on and off days for vehicles. Staggered days hours for vehicles. Can't walk on beach if dodging cars.

Comment #10: Have alternative areas for OHV use not in sensitive areas.

Comment #11: Seasonal exclosure for snowy plover is successful. Make exclosure permanent. Open up new areas for OHV offsetting area closed.

Q: With less than 10 snowy plover take last year, could that be enough information for USFWS to determine whether to use an EA versus an EIS?

Response: Good question. USFWS will have to consider it. USFWS have to consider the numbers range-wide not just local. Depends on species and what the numbers are. One take in area where there is only one bird is obviously significant. Is 10 take in an area of 1,000 birds significant? It has to be looked at in context over the entire range.

Q: Does the 10 take include snowy plover that went to Pacific Wildlife Care?

Response. No. Raises the question of how do we handle birds sent to captive rearing.

Comment #12: CDFW keeps statistics on birds going to Pacific Wildlife Care and has aggregate totals after birds brought in and what happens to them. Need to account for injured birds in take totals.

Q: Isn't wound a take?

Response: It depends on how injury happens. Not all injuries are human caused. Not all injury is from a covered activity. Otherwise take is underestimated. Also, not all take is seen. May have found 3 take but some not seen. What is the trigger [take limit] used to re-evaluate impacts? USFWS recognizes that a take of 10 represents more. Take numbers in permit represents a higher unseen number of take.

Q: How are dead animals found?

Response: Park staff find during daily monitoring. In some cases public brings them to staff.

Q: Recovery unit is long. Lompoc - Vandenburg numbers are good due to limited access. Are numbers tracked for recovery?

Response: USFWS has recovery program for species. State Parks is in Recovery Unit 5, which goes across multiple counties. Our site is one big site. Multiple sites are within the Recovery Unit. USFWS is keeping track of what's going on up and down the coast.

Comment #13: Oso Flaco is a transfer point of water between lakes. Water comes up over the top of the causeway. Road needs upgrading.

Comment #14: Dual [alternative] access needed through the dunes through Oso Flaco to take impact off Arroyo Grande Creek [vehicles crossing through creek].

Comment #15: Consider months on, months off [vehicle riding closure] alternative and closure during plover nesting period.

Q: How does drought years affect species?

Response: Arroyo Creek is an estuary and species are impacted [extirpated] when creek dries out. State Parks monitors but has not control over water flow entering creek. State Parks is at end of creek flow.

Comment #16: Tribal community injecting water into ground which could have a beneficial impact to creek flows.

Q: What is the body of water on the beach? It is sewer?

Response: Pismo Creek and Carpenter Creek have a shared outfall. It is not sewer.

Comment #17: Educational signage should be in Spanish and English. By having signage in English only you are losing a large percentage of the population.

Response: State Parks recognizes bilingual signage is needed.

Comment #18: See large pictures at entrance to beach. Have educational signage on mile markers where people are hanging out. People learn by pictures.

Q: Has sand density of preferred nesting habitat been evaluated?

Response: Sand density is only one factor. Contouring and vegetation are also factors.

Comment #19: Consider evaluating sand density to assess preferred nesting habitat.

Comment #20: Need to look at all animals in park.

Response: CEQA side has to look at how HCP covers all other species. State Parks has active program for all plants and animals not just state and federal species. State Parks now sharing information on common species. New legislation requires public process for these common species.

ATTACHMENT 5: SCOPING LETTERS

- List of Hardcopy Letters and Individual Emails
- Letters and Individual Emails
- List of Form Letter Emails
- Form Email with Unique Comments

The list of individuals or organizations providing unique written letters and individuals submitting the form letter or variations of the form letter is presented below:

- U.S. Environmental Protection Agency
- California Coastal Commission
- Native American Heritage Commission
- CAL 4-Wheel Drive Association
- Center for Biological Diversity
- Law Offices of Babak Naficy for Sierra Club
- Law Offices of Thomas D. Roth for Friends of Oceano Dunes
- June Skadden
- Point Blue Conservation Science
- Zette Harbour
- Rachelle Toti
- June Gill

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 13, 2018

Mr. Stephen P. Henry
Field Supervisor
Ventura Fish and Wildlife Office
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, California 93003

Subject: Scoping Comments for the Draft Habitat Conservation Plan for the California Department of Parks and Recreation Oceano Dunes District, San Luis Obispo County, California

Dear Mr. Henry:

The U.S. Environmental Protection Agency (EPA) has reviewed the Notice of Intent (NOI) to prepare a draft environmental analysis for the proposed habitat conservation plan for the California Department of Parks and Recreation Oceano Dunes District. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

We recommend the Service consider a number of issues when preparing the DEIS, including: the range of alternatives to be evaluated; the regulatory framework surrounding the proposed action; biological resources; air quality; and consultation with tribal governments. These and other issues are discussed further in the attached detailed comments.

We appreciate the opportunity to review this scoping notice and are available to discuss the recommendations provided. When the DEIS prepared for this proposed action is released for public review, please send one hard copy and one CD to the address above (mail code: ENF-4-2). If you have any questions, please contact me at (415) 947-4221 or gerdes.jason@epa.gov.

Sincerely,

Jason Gerdes
Environmental Review Section

Enclosure: EPA's Detailed Scoping Comments

U.S. EPA DETAILED SCOPING COMMENTS FOR THE CALIFORNIA DEPARTMENT OF PARKS AND RECREATION OCEANO DUNES DISTRICT HABITAT CONSERVATION PLAN, CALIFORNIA – FEBRUARY 13, 2018

Purpose and Need and Alternatives Analysis

EPA recommends that the Draft Environmental Impact Statement (DEIS) prepared for the California Department of Parks and Recreation Oceano Dunes District Habitat Conservation Plan (HCP) clearly identify the purpose and need to which the U.S. Fish and Wildlife Service (Service) is responding in proposing the alternatives (40 CFR 1502.13), as well as the rationale for the proposed action. EPA further recommends that all reasonable alternatives that fulfill the proposed action's purpose and need be evaluated in detail, including alternatives outside the legal jurisdiction of the Service (40 CFR 1502.14(c)). Describe specific actions that would be taken to protect critical wildlife habitats from potential adverse effects of the proposed alternatives and options for avoiding significant environmental impacts. We suggest that habitat conservation measures include provisions to safeguard high-value habitats and create or maintain habitat corridors.

EPA recommends that the DEIS provide a complete description and evaluation of the available data used to inform the HCP alternatives to be analyzed. Quantify the potential direct, indirect, and cumulative environmental impacts of each alternative to the greatest extent possible (e.g., acres of critical habitat impacted, changes in population size) and present the benefits and adverse impacts in comparative form to assist the decision-maker and public in understanding how the alternatives differ (40 CFR 1502.14). We suggest including a clear discussion of the reasons for the elimination of any alternatives which are not evaluated in detail, as well as any available and relevant impact analyses conducted to satisfy environmental review procedures for the covered activities, in the DEIS. To promote long term success with the proposed conservation goals, we suggest that the Service consider developing, if not already in place, a scientific advisory committee to help design a scientifically robust HCP.

Scope of Analysis and Integration with Permitting and Other Projects

Clearly explain whether the EIS is intended to serve as a programmatic "tiering" document for subsequent project-specific NEPA analysis or whether it will be directly relied upon for project-level decision-making. If it is intended as a programmatic document, identify the factors that will be used to determine when a subsequent EIS will be required, and explain which covered activities and conservation measures will be evaluated under separate environmental review. EPA also recommends providing a description of any permits and/or modifications to those permits that the covered activities would require (e.g., National Pollution Discharge Elimination System permits for discharges to waters of the United States) and a description of how the permitting efforts can be synchronized.

Biological Resources, Habitat, and Wildlife

Provide a clear description of direct, indirect, and cumulative impacts to wildlife and habitat, as well as measures to avoid and reduce impacts to affected species. Emphasis should be placed on the protection and recovery of the covered species due to their status under the Endangered Species Act (ESA). EPA recommends that this impact analysis include:

- Baseline conditions for habitats and populations of the covered species sufficient for estimates of take.

- A clear description of how avoidance, mitigation, and conservation measures would protect and aid in the recovery of the covered species and their habitats in the protected area.
- The projected impacts of proposed avoidance, mitigation, and conservation measures.

We recommend that the DEIS include monitoring, reporting, and adaptive management efforts to ensure compliance with the HCP and measure its effectiveness. Additionally, we suggest including a description of the HCP's consistency, or disclosure of any potential inconsistency, with other habitat conservation plans and species recovery plans in the surrounding area.

Invasive Species

Executive Order 13112 "Invasive Species" (February 3, 1999) mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. Executive Order 13112 also calls for the restoration of native plants and tree species. In the DEIS, include an invasive plant management plan to monitor and control detrimental vegetation. If the proposed project would entail new landscaping, describe how the project would meet requirements of Executive Order 13112.

Water Resources

Provide a description of the natural drainage patterns within the plan area, including the 50-or 100-year floodplain. Characterize the general functions of the main aquatic features within the plan area and examine the ways in which these resources could be affected by the proposed alternatives.

Clean Water Act Section 404

The proposed HCP covers species that utilize habitat that may also be regulated under Clean Water Act (CWA) Sections 404 and 401. To integrate the goal of conserving species and protecting the nation's waters, we recommend that the Service engage with the U.S. Army Corps of Engineers (Corps), EPA, and the state or tribal governments that may have water quality certification responsibilities under CWA Section 401 in the planning and development of this HCP. Cooperation among the ESA and CWA agencies under an HCP can result in better resource protection and enhanced services to the regulated public.

Given that activities authorized for take under the HCP may be required to obtain CWA permits, it is important to seek alignment or integration between the conservation strategy and avoidance, minimization, and compensatory mitigation under the CWA, including monitoring strategies that work for both the HCP and CWA purposes. To minimize conflicts and promote coordination among agencies, EPA recommends including CWA agencies early in the HCP development process.

The 2008 EPA/Corps Compensatory Mitigation Rule sets forth requirements for mitigation and monitoring required for CWA Section 404 permits (33 CFR 325; 33 CFR 332; 40 CFR 230). It also establishes procedures for creating and implementing in-lieu fee (ILF) programs, which some HCP permittees may seek to use for meeting their CWA mitigation obligations. If the HCP sponsor wishes to set up an ILF program, EPA recommends close coordination with our agency and the Corps regarding any take authorized under the HCP.

Air Quality

Provide a detailed discussion of ambient air conditions, National Ambient Air Quality Standards (NAAQS), criteria pollutant nonattainment zones in the plan area, and potential air quality impacts of the covered activities, including indirect and cumulative impacts. Such an evaluation is helpful in demonstrating compliance with state and federal air quality regulations, and disclosing the potential impacts from temporary or cumulative degradation of air quality.

EPA recommends an evaluation of the following measures to reduce emissions of criteria air pollutants and hazardous air pollutants:

- *Quantify Emissions* – Estimate emissions of criteria pollutants from the covered activities and discuss the timeframe for release of these emissions over the lifespan of the HCP. Describe and estimate emissions from potential construction activities, as well as proposed mitigation measures to minimize these emissions.
- *Specify Emissions Sources* – Specify the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance. Use this source-specific information to identify appropriate mitigation measures and areas in need of the greatest attention.
- *Construction Emissions Mitigation Plan* – EPA recommends including commitments to aggressive air quality mitigation measures during future project-specific construction activities. In addition to measures necessary to meet all applicable local, state, and federal requirements, EPA recommends that the following measures be included:

  Fugitive Dust Source Controls
  - Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
  - Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
  - When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 miles per hour.

  Mobile and Stationary Source Controls
  - Minimize use, trips, and unnecessary idling of heavy equipment.
  - Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies.
  - Limit unnecessary idling and ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
  - Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.

  Administrative Controls
  - Specify how impacts to sensitive receptors, such as children, the elderly, and the ill would be avoided. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emissions controls for each piece of equipment before groundbreaking.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
  Identify where implementation of mitigation measures is rejected based on economic infeasibility.

General Conformity

EPA's General Conformity Rule, established under Section 176(c)(4) of the Clean Air Act, provides a specific process for ensuring federal actions will conform with State Implementation Plans (SIPs) to achieve NAAQS. Describe how the Service will ensure that the proposed alternatives will comply with federal conformity requirements. The DEIS should demonstrate conformity for all pollutants for which relevant air basins are in nonattainment or maintenance status, and whose construction or operational emissions would exceed the applicable *de minimis* levels. Conformity may be demonstrated by showing that the total direct and indirect emissions from the action are specifically identified and accounted for in the SIP.

Adaptive Management

The proposed period of incidental take coverage will likely be a time of considerable change in the plan area. We recommend that the description of the affected environment in the DEIS include a discussion of projected future changes that may affect the covered species and the habitats on which they depend. Issues to consider include the projected change's impact on the status of covered species, distribution of species throughout the plan area, the success of restoration efforts, and a potential need for new or expanded conservation lands.

EPA recommends that the DEIS consider reasonable alternatives that include adaptive management objectives to account for future projected changes. In line with the principles of adaptive management, we recommend that the Service clearly define the following in the HCP evaluation: monitoring objectives; the level of impact that would trigger action (including mitigation measures that would be implemented should a threshold be exceeded); how long-term mitigation and monitoring for the life of the permit will be funded; and the mechanisms for public disclosure of the monitoring results and the adaptive management decisions.

Cumulative Impacts

The cumulative impacts section of the DEIS should evaluate the effects of other past, present, and reasonably foreseeable actions and consider those impacts on a cumulative level (CEQ's *Forty Questions*, #18). This analysis will help provide a context for understanding the magnitude of the effects of the proposed alternatives. In this section, clearly identify the resources that may be cumulatively impacted, the time over which the impacts would occur, and the geographic area(s) that would be affected by the proposed action. Identify which resources were analyzed, which resources were excluded from analysis, and describe the rationale used to guide this selection process.

Additionally, we suggest that the cumulative impacts analysis:

- Describe the current condition of the resource as a measure of past impacts (e.g., the percentage of species habitat lost to date).

- Identify trends in the condition of the resource as a measure of present impacts (e.g., whether the condition of the resource is improving, declining, or in stasis).
- Identify all on-going, planned, and reasonably foreseeable projects in the study area that may contribute to cumulative impacts.
- Describe the future condition of the resource based on an analysis of impacts from reasonably foreseeable projects or actions added to existing conditions and current trends.
- Assess the contribution of the proposed alternatives to the long-term health of the resource, and provide a specific measure for the projected impact from the proposed alternatives.
- Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.
- Identify opportunities to avoid and minimize impacts, including working with other entities.

Consultation with Tribal Governments

Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments" (November 6, 2000) was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian Tribes.

In the DEIS, describe the process and outcome of government-to-government consultation between the Service and each of the tribal governments within the plan area, issues that were raised (if any), and how those issues were addressed in the selection of the proposed alternative. As a general resource, EPA recommends the document *Tribal Consultation: Best Practices in Historic Preservation*, published by the National Association of Tribal Historic Preservation Officers.[1]

National Historic Preservation Act and Executive Order 13007

Consultation for tribal cultural resources is required under Section 103 of the National Historic Preservation Act (NHPA). Historic properties under the NHPA are properties that are included in the National Register of Historic Places (NRHP) or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, to consult with the appropriate State Historic Preservation Office/Tribal Historic Preservation Office (SHPO/THPO). Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources, following regulation in 36 CFR 800.

Executive Order 13007 "Indian Sacred Sites" (May 24, 1996) requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site. It is also important to note that sacred sites may not be identified solely in consulting with tribes located within geographic proximity of the project. Tribes located outside of the plan area may also have religiously significant ties to lands within the plan area and should, therefore, be included in the consultation process.

[1] *See* http://www.nathpo.org/PDF/Tribal_Consultation.pdf

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EPA recommends that the DEIS address the existence of Indian sacred sites in the project areas. Explain how the proposed action would address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how the Service would ensure that the proposed action would avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. Provide a summary of all coordination with Tribes and with the SHPO/THPO, including identification of NRHP eligible sites and development of a Cultural Resource Management Plan.

Environmental Justice

Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (February 11, 1994) and the "Memorandum of Understanding on Environmental Justice and Executive Order 12898," released on August 4, 2011, direct federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process. CEQ guidance[2] clarifies the terms low-income and minority population, which includes Native Americans, and describes the factors to consider when evaluating disproportionately high and adverse human health effects.

EPA recommends that the DEIS include an evaluation of environmental justice populations within the geographic scope of the plan area. If such populations exist, describe how the proposed action would address the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation and coordination with these populations.

Coordination with Land Use Planning Activities

EPA recommends that the DEIS discuss how the proposed action would support or conflict with the objectives of federal, state, tribal, or local land use plans, policies, and controls in the plan area. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning, and related regulatory requirements, as well as plans not yet developed that have been proposed by the appropriate government body in a written form.[3]

[2] *See* Environmental Justice Guidance under the National Environmental Policy Act, Appendix A (Guidance for Federal Agencies on Key Terms in Executive Order 12898), CEQ, December 10, 1997. https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf

[3] *See* "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," #23b. https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., *GOVERNOR*

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March 12, 2018

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Re: United States Fish and Wildlife Service (USFWS) and California Department of Parks and Recreation (State Parks) Proposed Oceano Dunes District Habitat Conservation Plan (HCP) Notice of Preparation (NOP) and Notice of Intent (NOI)

Dear Mr. Glick and Ms. Chang:

Thank you for the opportunity to provide some initial comments and preliminary suggestions regarding the NOP (for purposes of CEQA) and NOI (for purposes of NEPA) for State Parks' proposed HCP covering the Oceano Dunes District (ODD), which is comprised of Pismo State Beach, Pismo Lake, and Oceano Dunes State Vehicular Recreation Area (ODSVRA). HCPs are required under the federal Endangered Species Act (ESA) for USFWS issuance of an Incidental Take Permit (ITP), and the CEQA/NEPA process is being undertaken by State Parks and USFWS, respectively, in support of a potential HCP/ITP for State Parks in relation to the ODD. We have the following comments.

According to the NOP/NOI, the proposed HCP and corresponding ITP will outline a 25-year plan to address ESA issues and requirements in the ODD, including identifying measures designed to avoid, and where unavoidable to minimize and mitigate, the effects of "covered activities" to ensure the conservation, protection, and contributions to the recovery of "covered species" (namely, the federally threatened Western snowy plover (WSP) and California red-legged frog, and the federally endangered California least tern (CLT), tidewater goby, Gambel's watercress, La Graciosa thistle, marsh sandwort, and Nipomo Mesa lupine). As proposed in the NOP/NOI, covered activities would include all lawful activities for which State Parks has responsibility that could result in take of the aforementioned covered species, including public use/recreation management, natural resources management, and park/beach management. On this point the NOP/NOI states that State Parks would manage impacts to these covered species due to covered activities largely in the same manner it currently operates, including by installing protective fencing and by undertaking certain activities associated with habitat protection and restoration, invasive plant and animal control, habitat monitoring, and water quality

improvements. In addition to the "no action" alternative (i.e., where State Parks continues to operate as it has without an HCP/ITP), the NOP/NOI indicates that USFWS and State Parks will also evaluate implementation of a proposed HCP where State Parks modifies its current operation by allowing for the seasonal exclosure fencing for WSP and CLT breeding protection to be modified to expand vehicular access and use. In all cases, the NOP/NOI indicates it would evaluate current lawfully established activities, and it will not evaluate potential changes to current daily limits on the number of street legal and off-highway vehicles (OHV) at ODSVRA.

As a preliminary matter, the NOP/NOI purports to solicit comments for an environmental analysis regarding the implementation of a proposed HCP, but it does not provide the actual proposed HCP that is going to be evaluated in that regard. In that sense, it is difficult to provide detailed comments on what, specifically, the CEQA/NEPA process should address. It may be that USFWS/State Parks is responding to certain uncertainties associated with current ODSVRA operations, or it could be for some other reason, but the lack of a proposed HCP makes it difficult to provide as directive of comments as might be possible if a proposed HCP were also to be provided with the NOP/NOI. As such, we may have more substantive and detailed comments when we see the proposed HCP and/or the draft EIR/EIS documents.

With respect to current operational uncertainties and the Commission's role, State Parks operates ODSVRA under a coastal development permit (CDP) issued by the Coastal Commission in 1982 (CDP 4-82-300, as amended). That CDP identifies the basic parameters for ODSVRA operation under the Coastal Act, including for Park access locations, OHV riding and camping parameters, overall use limits, and habitat and sensitive species protection requirements. Importantly, many of the key operational parameters, most notably in terms of access into the Park and overall use limits,[1] have never been finalized through the required CDP amendment and Local Coastal Program (LCP) amendment processes, and thus they are currently authorized through the CDP on a temporary basis. In addition, the Commission retains the authority to review State Parks' operations on a yearly basis and to identify necessary changes, particularly related to addressing potential habitat impacts due to vehicular use. It is not clear from the NOP/NOI how the proposed HCP and/or ITP intends to address the temporary nature of the CDP authorization and the potential for State Parks' operations to change over time, including in relation to yearly Commission reviews. Critically, in proposing to evaluate State Parks' current operations, it is not clear how USFWS/State Parks intends to address the issues associated with the need for State Parks to finalize certain critical aspects of its operation that are only temporarily authorized under the CDP, including Park access and overall use limits. These current interim parameters are some of those most clearly tied into potential ESA species issues, and thus the lack of finality

[1] The two interim entrance points into the Park are at West Grand Avenue and Pier Avenue, and the interim staging area is currently located just south of the two-mile post (i.e., only street legal vehicles are allowed to be operated north of the two-mile post, and OHVs (and street legal vehicles) can be operated south of the two-mile post), and thus OHVs must be transferred via trailers to the interim staging area from the interim West Grand and Pier Avenue entrances. Current use limits that are subject to adjustment allow for a maximum of 2,580 street legal vehicles per day, a total of up to 1,720 OHVs at any given time, and up to 1,000 camping units per day.

through the CDP and the LCP processes must somehow be addressed in any proposed HCP and CEQA/NEPA documents, as well as any eventual ITP.

In addition, State Parks is also currently proposing to undertake a more holistic analysis of ODSVRA operations and its potential permanent configuration via a Public Works Plan (PWP),[2] which effort is currently in the beginning and formative stages now. According to State Parks, the goal of their proposed PWP is to take a fresh look at ODSVRA management and operations, including identifying permanent access and staging areas, identifying where OHV riding and camping are and are not allowed (including to reduce particulate matter emissions on downwind communities in conjunction with efforts of the San Luis Obispo County Air Pollution Control District and the California Air Resources Board), and other resource protection requirements. In other words, the PWP process currently being undertaken by State Parks, which will ultimately be submitted for Coastal Commission review and certification, may materially affect the way in which ODSVRA is used, managed, and operated, including with respect to areas where recreational use and other covered activities are located. In addition, if the PWP is to replace the underlying base operational CDP, then it will need to resolve issues still outstanding there, including in relation to the interim nature of certain key ODSVRA provisions.

Therefore, at a broad level, it is unclear how the proposed HCP will be structured in relation to the fluid nature of ODSVRA at this time, including how the HCP's resource protection requirements will be able to address different Park configurations, operations, and use levels than the current status quo. And it is even less clear to us how the CEQA/NEPA document would evaluate the range of potential outcomes at this time given the uncertainties identified above. It appears that the HCP and any CEQA/NEPA documents based on evaluating it will need to reflect ODSVRA's transitory reality at this juncture, including that the current configuration is interim and potentially subject to significant change. The ultimate location and delineation of the final ODSVRA entrance and staging areas, and its overall use parameters, under the CDP and the LCP would affect covered species differently, and thus the measures needed to protect such species from take would also be different. For example, if ODSVRA access and staging are moved from their current locations to a more southerly point, how would this affect covered species and their protection needs? If OHV riding and camping were located in a different area to account for relocated access and staging locations, or to respond to air quality considerations or otherwise, how would these alternative locations similarly affect covered species? Similarly, while the NOP/NOI states that vehicle and camping use limits are not proposed for amendment, including because they are approved by CDP 4-82-300, as discussed above, those limits too are interim and subject to modification, including through the CDP-required yearly evaluation, based on resource protection and public recreation needs. And State Parks has more recently been

[2] A PWP is a vehicle for planning and regulation under the Coastal Act that allows certain public agencies to propose a certain set of projects and other types of development that can be identified in a PWP that the Commission certifies as consistent with the Coastal Act. Following such certification, the public agency, in this case State Parks, can then perform the identified PWP development subject to reporting it to the Commission and without a CDP, provided it is PWP consistent. In other words, the PWP can serve to replace the need for case by case CDP evaluation, and can significantly streamline certain public agency activities.

looking at a 'no net loss' of riding area concept whereby any reductions in OHV riding areas, for whatever reason, are offset by creating new riding areas, presumably in adjacent dune habitat areas, and this too needs to be evaluated in the HCP/ITP and CEQA/NEPA processes.

In sum, the proposed HCP and its associated CEQA/NEPA reviews need to evaluate all potential ODSVRA configurations and operations, particularly in response to the current interim nature of critical components and the potential for upcoming Park changes, whether through the CDP, LCP, or PWP process or all three. As such, and as much as we recognize and agree that the need for an HCP is especially acute, particularly given past documented episodes of ESA species take at ODSVRA, it is not clear how such a PWP can or will be structured to address all of the above. And given that, it is even less clear to us how the CEQA/NEPA document will evaluate environmental impacts due to proposed HCP implementation, including because it is not clear what proposed HCP would be evaluated. At a minimum, the proposed HCP needs to be provided as part of any CEQA/NEPA scoping. Thus, if the CEQA/NEPA process is to move forward, we would strongly recommend that the proposed HCP be drafted in a manner that reflects the above uncertainties, and that provides for appropriate adaptive changes to occur in response to identified benchmarks, including related to potential changes associated with the CDP, the LCP, and the potential PWP, and to associated finalized access, staging, and use parameters. Once that proposed draft HCP is available for public review, we recommend that the associated environmental documents then evaluate the potential impacts and mitigation measures necessary for a series of different ODSVRA configurations and assumptions coming out of the HCP, which by necessity are likely to be required to be iterative and adaptive in order to account for the range of potential future Park changes at this juncture.

In addition to the above described overarching concerns/suggestions, we have the following specific issues that both the HCP and its EIR/EIS should evaluate.

In terms of alternatives, it is clear given the above discussion that the range of currently proposed alternatives to be evaluated in the CEQA/NEPA documents is simply not adequate to identify the potential environmental impacts and mitigations. In addition, and even bracketing the level of uncertainty, the NOP/NOI identifies only two alternatives to be evaluated: one a 'no action' alternative where State Parks would continue to operate as it has without an HCP/ITP, and a second where State Parks modifies its current operation by allowing for the seasonal exclosure fencing for WSP and CLT breeding protection to be modified to allow for expanded vehicular access and use. It appears clear to us that such a limited set of alternatives will not provide decision makers with the appropriate level of information and tools to be able to make informed decisions. In fact, the first alternative is to maintain the status quo, and the second contemplates actually *reducing* ESA species protections. At a minimum, the CEQA/NEPA documents need to evaluate a full range of alternatives with the best chance of meeting project objectives (presumably ESA species protection) with the least amount of coastal resource impacts, both in terms of recreation and habitat. Toward that end, it seems imperative that alternatives be shaped based on data (for example, avoiding use in areas identified as the most acute in terms of species impacts), and that each offer a co-equal evaluation of the costs and benefits environmentally of

each alternative. We do not see how evaluating only 'do nothing' and 'reduce ESA-species protections' alternatives fulfills those needs, and would strongly suggest additional alternatives be identified, including those based on avoiding use in areas identified as the most problematic in terms of species impacts, including so decision makers are properly equipped with a full understanding of the potential options for addressing ESA species needs in Oceano Dunes. The evaluation of alternatives is a fundamental component of CDP, LCP, and PWP conformance processes, and we would expect that the CEQA/NEPA documents range of alternatives are able to provide a co-equal evaluation of the various ways project objectives can be achieved, and that they provide a full spectrum of possibilities for consideration taking into account Coastal Act requirements and objectives. We are available for consultation on this point as the CEQA/NEPA process progresses, should that prove useful to you.

With respect to Western snowy plover (WSP) in particular, take of the WSP in ODSVRA is well documented, with an increase in take documented in recent years. The HCP should develop specific and enforceable strategies that will eliminate (or at least reduce) the take associated with these and other state and federally listed species. In particular regarding WSP, we believe that there should be an emphasis on policies that address bird deaths during both the breeding season and the overwintering season. Specifically, the policies should address the size, configuration, and seasonal duration of potential WSP exclosures, as well as management practices associated with wrack availability, vegetation density, and predator management. In addition, impacts to WSP associated with recreation, particularly the unique impacts OHV recreation and special events engender, should be addressed, including location restrictions (both permanent and seasonal), appropriate speed limits, signage and other means of public education for OHV riders, as well as appropriate mechanisms of enforcement. Ultimately, the CEQA/NEPA documents must then evaluate these provisions, including providing an assessment of potential impacts and mitigations and the associated evaluation of alternatives discussed above.

Similarly, in terms of California least tern (CLT), take of CLT at ODSVRA is both well documented and has increased, as you are aware, in recent years. Thus, we believe that the HCP process is also an opportune time to update CLT protections at ODSVRA, including ensuring policies are reflective of where birds congregate. Protective policies must be flexible enough to be responsive to any changes in CLT behavior or favored habitat, and large enough to accommodate any population growth should this occur. Moreover, enforced nest buffer distances and fencing configurations and materials must be determined from the most up-to-date scientific information, and empirically verified. 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. All management measures should be deferential to expert recommendations and should be adaptive. And again, the CEQA/NEPA documents must also address these same issues in similar ways as for WSP.

With respect to aquatic resources, the HCP will need to carefully consider recommendations and restrictions necessary to safeguard ODSVRA's fish and aquatic-affiliated species. Policies concerning the integrity of the ephemeral Arroyo Grande Creek, an area which supports the

federally listed tidewater goby, steelhead, and the California red-legged frog, require particular attention, particularly from vehicular creek crossings. Currently, vehicles are allowed to cross the creek at water depths capable of supporting fish passage when the creek is connected to the ocean, and additional protective measures appear acutely warranted here. In addition, in winter, before natural lagoon breaching occurs, policies need to address OHV use in the vicinity of the lagoon mouth; otherwise, accidental breaching and associated take could also occur. In addition to addressing policies of OHV use in the vicinity of Arroyo Grande Creek, as discussed earlier, the HCP needs to also evaluate the impacts and protective measures associated with alternative Park access and staging areas, particularly those that would bypass Arroyo Grande Creek and lagoon altogether. Finally, we also strongly encourage an analysis of OHV impacts on annual grunion runs, which are known to occur in the ODSVRA. And again, any CEQA/NEPA documents must also address these same issues, including in terms of alternatives evaluation.

Lastly, any proposed HCP and supporting CEQA/NEPA documents must clearly specify enforcement provisions to ensure that final HCP policies and requirements are fully carried out. For example, any HCP needs to fully evaluate success and non-compliance criteria, including how State Parks will mitigate for any take or other adverse impacts to covered species not authorized by a final HCP/ITP. To ensure accountability, the HCP must have a strong monitoring and reporting function. Public education, including by informing visitors of habitat protection requirements, is a key part of this enforcement strategy, and the HCP should identify these public education parameters as well.

Again, thank you for the opportunity to provide these initial comments on the proposed HCP and the NOP/NOI. As you know, the Commission has been deeply involved for many years with the ongoing issues associated with the balancing of active public recreational and access opportunities for all with the protection and enhancement of sensitive species and their habitats in the Oceano Dunes District, both through the underlying CDP as well as the LCP, and potentially through an upcoming PWP. The Commission's program and involvement necessarily and directly intersects with that of USFWS under the ESA, and we are hopeful that an HCP/ITP and any associated CEQA/NEPA supporting documents can bridge the above-described analytic and substantive gaps to best allow for robust decision-making and good public policy. We look forward to continued collaboration on these important coastal resource issues of shared concern, and are available for consultation as you proceed forward. Please do not hesitate to contact me if you have any questions or would like to further discuss these matters.

Sincerely,

Kevin Kahn
District Supervisor
Central Coast District Office
California Coastal Commission

cc: Mat Fuzie and Kevin Pearce, State Parks
Julie Vance, CDFW
Matt Janssen, San Luis Obispo County

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Edmund G. Brown Jr., Governor

January 31, 2018

Ronie Glick
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RE: SCH#2018011012 Oceano Dunes District Habitat Conservation Plan, San Luis Obispo County

Dear Mr.Glick,

The Native American Heritage Commission has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

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7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
       i. Planning and construction to avoid the resources and protect the cultural and natural context.
       ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
       i. Protecting the cultural character and integrity of the resource.
       ii. Protecting the traditional use of the resource.
       iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

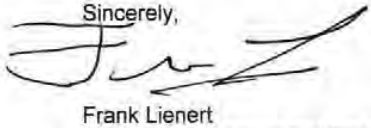
b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
- **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
- **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
- **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions, please contact me at my email address: frank.lienert@nahc.ca.gov

Sincerely,



Frank Lienert
Associate Governmental Program Analyst

cc: State Clearinghouse

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Mr. Ronnie Glick, Senior Environmental Scientist
California Department of State Parks and Recreation
Oceano Dunes District
340 James Way Ste. 270
Pismo Beach Ca. 93449
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The California 4 Wheel Drive Association (C4WDA) was founded in 1959 and we are a non-profit organization that has actively promoted the advancement of vehicle oriented outdoor recreation.

C4WDA is a volunteer-based organization of enthusiasts who promote responsible family recreation and exercise environmental conservation for the purpose of protecting access to public lands.

C4WDA represents over 8,000 members and 160-member clubs. We are the largest organization of this type in California and represent owners of all makes and models of 4WD vehicles, as well as non-owners who support responsible vehicle-oriented recreation.

C4WDA's mission is to work with the land managers for responsible OHV access and recreation opportunities. We support the concept of managed recreation and strategies for the building and maintenance of sustainable and quality OHV trails systems.

C4WDA has many members that are recreational visitors to the Oceano Dunes SVRA and they are very interested and concerned about actions that deal with the OHV recreational opportunity at Oceano Dunes SVRA.

As OHV recreation opportunities at the Oceano Dunes SVRA are reduced, the demand for OHV recreational opportunities by California citizen's increases. We are very concerned with systematic reduction in the size of the Oceano Dunes SVRA.

We feel that there should be no net loss in OHV opportunity.

The Oceano Dunes SVRA is a very unique recreation area. Nowhere in California can you camp and enjoy OHV recreational activities on the beach.

I personally have been recreating at the Oceano Dunes SVRA for over 30 years. My 3 kids that are now 30,28 and 17 have wonderful memories of their times at Oceano Dunes SVRA and I would hate for their kids not to have the same opportunity to enjoy the dunes the way we did.

OHV recreation is a substantial economic force in California, supporting jobs, local communities and tax revenues.

C4WDA appreciates this opportunity to be involved in the public planning process on behalf of its members who enjoy recreation in the Oceano Dunes SVRA.

Please contact me if you have questions or wish to discuss any aspect of these comments.

Jeff Blewett
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CENTER for BIOLOGICAL DIVERSITY Because life is good.

Protecting and restoring natural ecosystems and imperiled species through Science, education, policy, and environmental law

Via Electronic Mail

March 12, 2018

Mr. Ronnie Glick
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Field Supervisor,
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lena_chang@fws.gov

Re: Oceano Dunes District HCP NOP

Dear Mr. Glick and Ms. Chang:

These comments are timely submitted on behalf of the Center for Biological Diversity (the "Center") regarding the Notice of Preparation and Public Scoping Meeting for the California Department of Parks and Recreation ("CDPR" or "State Parks"), Oceano Dunes District Habitat Conservation Plan Joint EA/EIR or Joint EIS/EIR for a (ODD HCP) issued by the CDPR on January 9, 2018, and the notice published by the U.S. Fish and Wildlife Service (FWS), "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," 83 Fed. Reg. 1380-1382 (January 11, 2018).

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 1.6 million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people and wildlife in San Luis Obispo County.

I. The ODD HCP Must Ensure The Recovery Of All Covered Species.

The ODD HCP must ensure not merely the continued survival of covered species, but also the recovery of these species. 'Conserve" as defined in the Federal Endangered Species Act (ESA) includes both survival and recovery: "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary." (16 U.S.C. § 1532(3).)

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Thus, the HCP must contain specific measures to "conserve," or provide for the recovery of, the species. (*Sw. Ctr. for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1128 (S.D. Cal 2006); *Sierra Club. v. Babbitt*, 15 F. Supp. 2d 1274, 1278 n.3 (S.D. Ala. 1998).) At a minimum, the ESA and implementing regulations require all HCPs to include the following: (1) a complete description of the activity sought to be authorized; (2) names of the species sought to be covered by the permit, including the number, age and sex of the species, if known; (3) the impact which will likely result from such taking; (4) what steps the applicant will take to monitor, minimize, and mitigate those impacts; (5) the funding that will be available to implement such monitoring, minimization, and mitigation activities; (6) the procedures to be used to deal with unforeseen circumstances; and (7) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized. (16 U.S.C. § 1539(a)(2)(A)(i)-(iv); 50 C.F.R. §§ 17.22, 17.32.) FWS cannot issue an ITP if the HCP does not contain this information. (16 U.S.C. § 1539(a)(2)(A).)

Upon reviewing a HCP and before permit issuance, the FWS must find that (i) the taking will be incidental; (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (iii) the applicant will ensure that adequate funding for the plan will be provided; (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (v) any other measures FWS requires will be met. (16 U.S.C. § 1539(a)(2)(B); 50 C.F.R. §§ 17.22, 17.32.)

In addition, the project area at Oceano Dunes includes designated critical habitat for the western snowy plover, tidewater goby, La Graciosa thistle, leatherback sea turtle, and south-central California Coast steelhead. The Ninth Circuit Court of Appeals explained that the purpose of critical habitat designations is not merely to ensure the species' *survival,* but also to "carve out territory" that is "essential for the species' *recovery*." (*Gifford Pinchot Task Force v. United States Fish & Wildlife Serv.* (9th Cir. 2004) 378 F.3d 1059, 1070; emphasis added.) *Gifford Pinchot* concluded that the Endangered Species Act (the "ESA") views "conservation and survival as distinct, though complementary, goals, and the requirement to preserve critical habitat is designed to promote both conservation and survival." (*Id.*) Applying *Gifford* here, the ODD HCP must protect critical habitat and other habitat currently used by the covered species, and also protect habitat that could be used by the covered species in the future as these populations recover. By the same token, the ODD HCP must minimize and mitigate the impacts to and taking of covered species to the maximum extent practicable, as required by 16 U.S.C. § 1539.

II. The ODD HCP and the Environmental Review Must Be Based Upon The Best Available Science.

The ODD HCP and the EIS/EIR or EA/EIR must be based upon the best available science. In particular, multiple years of surveys are critical in order to capture changes in time of the resources under different climatic/recreational pressures. Single surveys of plants and wildlife are just snapshots in time and do not include sufficient survey data to evaluate potential impacts on covered species or ensure their continued survival and eventual recovery. The

environmental review should also rely upon multiple years of surveys to ensure that current "baseline" conditions are properly considered for the entire HCP area and surrounding natural areas. The Notice states that "HCP area includes Pismo State Beach, Oceano Dunes SVRA, and Pismo Lake located in San Luis Obispo County, California" which includes the Oso Flaco lake in the south. In addition, the activities in the HCP area may also affect other park lands and protected habitats, including but not limited to Nipomo Dunes National Wildlife Refuge to the south, and data must be obtained regarding resources in these areas as well. While we recognize that State Parks has conducted surveys, erected temporary closures to benefit beach nesting birds and managed other sensitive resources for protection in the past, the basis for the HCP should include up-to-date, comprehensive surveys conducted by qualified biologists using established FWS and CDFW protocols. Moreover, stakeholders in the environmental community should be notified prior to when such surveys occur and biologists from environmental organizations should be invited to attend and/or participate in such surveys.

At the same time, the ODD HCP and environmental review should be clear that any surveys conducted in preparation of the ODD HCP do not excuse or substitute for ongoing monitoring obligations or other issues falling under the California Environmental Quality Act ("CEQA"), the National Environmental Policy Act ("NEPA"), or the ESA.

III. The ODDHCP and Environmental Review Must Take Into Account The Impacts Of Climate Change On Covered Species.

The ODDHCP and environmental review must consider the impacts of global climate change, sea level rise, and local climatic changes on each of the covered species, including the need for climate change mitigation strategies (e.g., reducing greenhouse gas emissions from the recreational activities) and the need for climate change adaptation strategies for each of the covered species (e.g., conserving intact wild lands and nesting habitat and the corridors that connect them). Given the long-range planning associated with the ODD HCP, the ODD HCP and environmental review must consider potential impacts to covered species and their habitats arising from climate change on at least at 50 year horizon.

IV. The ODD HCP and Environmental Review Must Address Protection and Recovery of All Covered Species

The ODD HCP and environmental review must identify the impacts from habitat destruction and fragmentation on all of the covered species and include meaningful proposals for protection and recovery of these vulnerable species. Species include but need not be limited to:

- federally threatened western snowy plover (*Charadrius nivosus nivosus*),
- federally & State endangered, & State fully protected California least tern (*Sternula antillarum browni*),
- federally endangered tidewater goby (*Eucyclogobius newberryi*),
- federally threatened California red-legged frog (*Rana draytonii*),
- federally endangered & State threatened Gambel's watercress (*Nasturtium (Rorippa)*

gambelii),
- federally endangered & State threatened La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*),
- federally and State endangered marsh sandwort (*Arenaria paludicola*),
- federally and State endangered Nipomo Mesa lupine (*Lupinus nipomensis*)

In addition, the threatened south-central California Coast steelhead occur in the HCP area and area affected by the covered activities. Indeed, Arroyo Grande Creek within the Oceano Dunes SVRA is part of the designated critical habitat for south-central California Coast steelhead. The leatherback sea turtle (*Dermochelys coriacea*) also has federally designated critical habitat within the area affected by covered activities. While these species are not managed by the USFWS, but rather by NMFS/NOAA, they are listed species and take is prohibited without a permit. The impact to critical habitat must be analyzed, avoided, minimized and/or mitigated to meet the requirements of the ESA, NEPA and CEQA. The HCP should be revised to either ensure that all impacts to steelhead and its critical habitat and leatherback sea turtle and its critical habitat are avoided or to include the steelhead and leatherback sea turtle as a covered species. Currently, when the creek is flowing across the beach seasonally in winter and spring, vehicles crossing the creek and driving in the creek-bed may adversely affect steelhead habitat. Leatherback sea turtle critical habitat is located all along the coastal strand of the SVRA and could contribute to the recovery of the species. State Parks and USFWS must address ways to protect steelhead and leatherback and their critical habitats from the impacts of covered activities, and fully consider impacts and alternatives to avoid such impacts in the HCP and environmental review.

The Oceano Dunes area is crucial to maintain populations of these listed species, some of which have been under the ESA protections for decades, and yet their populations still show signs of decline. The ODD HCP and environmental review should ensure there are no further declines in breeding, nesting, feeding, loafing and recovery habitat and should also protect habitat used outside of the breeding season.

We oppose the proposal to reduce nesting and breeding habitat, in particular the snowy plover and least terns breeding habitat, as stated in the Federal Register notice which includes as part of the "proposed action" a "reduction of the Boneyard and 6 exclosures." (83 Fed. Reg. at 1381.) We urge State Parks to withdraw this proposal which is an inappropriate consideration for an HCP. Instead the ODD HCP and environmental review should focus on a proposed action that will enhance, rather than diminish conservation for covered species. The review should also include consideration of alternatives that include expanding the protected nesting area exclosures for the plovers and terns, as well as the inclusion of permanently protected areas for resident plover loafing and feeding areas, in order to reduce the potential for impact from vehicles. While we are appreciative of the efforts that State Parks has put in place for the plovers/terns, we were concerned to see plovers loafing in fresh tire tracks on our most recent visit to the Oceano Dunes. (*See, e.g.*, photo attached as Attachment A.) We request that the ODD HCP and environmental

review incorporate, at a minimum, the findings from the 2017 USFWS report[1] including the recommendations (starting at pg. 49) for improving the protections for nesting/brooding snowy plovers/least terns. We note that there were numerous "bumpouts" and "single nest exclosures" implemented in 2017 to protect nests in the open riding areas. While we appreciate that State Parks was pro-active about protecting these nests, the need for these additional exclosures indicates that *more* contiguous area, not less is needed to protect nesting terns and plovers during the breeding/brooding season.

V. The ODD HCP and Environmental Review Must Appropriately Address Habitat Needs of Resident Snowy Plovers

Currently State Parks is implementing only temporary exclosures for breeding/brooding snowy plovers. However, some snowy plovers are now year-round residents of Oceano Dunes. Mortalities have been documented during the non-breeding season with birds being driven over and killed. Therefore, the ODD HCP must address safeguards for the non-breeding season above and beyond what is currently being implemented (currently consisting of some education efforts & signs). While the current activities are helpful, clearly they are inadequate to prevent mortalities, and additional measures need to be put in place to further avoid mortalities such as placing more of the near-shore areas off limits to motorized vehicles, lowering speed limits and enhancing enforcement efforts.

VI. The ODD HCP and Environmental Review Must Appropriately Address Least Tern as a Fully Protected Species

The scoping notice indicates that the least tern will be a covered species under the ODD HCP. The least tern is also a fully protected species under California law, and therefore any take of this species is unlawful under the fully protected statute except, as relevant here, as part of a Natural Communities Conservation Plan (NCCP). Therefore in order for the State Parks to avoid illegal take under California law, this process should either ensure complete avoidance of impacts to least tern or include development of an NCCP as well as the HCP in order to assure that conservation is fully addressed for the least tern.

VII. The ODD HCP and Environmental Review Should Consider Addressing Additional Unlisted Species In Order to Preclude Future Listings.

The ODD HCP and environmental review need to provide a science-based path for protection and recovery for other sensitive species that are known from the ODD. Such species have been documented in the ODD[2] and include:

- Vaux's Swift (*Chaetura vauxi*)
- Brant *(Branta bernicla)*

[1] https://www.fws.gov/arcata/es/birds/wsp/documents/siteReports/California/2017%20Oceano%20Dunes%20SVRA%20California%20Least%20Tern%20and%20Western%20Snowy%20Plover%20an....pdf
[2] https://ebird.org/hotspot/L4870985 and https://ebird.org/hotspot/L2757130 and https://ebird.org/hotspot/L208487

- Northern Harrier (*Circus cyaneus*)
- Least Bittern *(Ixobrychus exilis*)
- Tricolored blackbird (*Agelaius tricolor*), also a candidate species under CESA
- Willow flycatcher (*Empidonax traillii*), State listed endangered
- Purple martin (*Progne subis*)

We request that a full list of sensitive species be considered to be included in the ODD HCP and certainly all of these species must be considered in the environmental review even if they are not considered as covered species under the HCP. If such species are ultimately not included in the ODD HCP, the environmental review must clearly discuss the reasons for their non-inclusion.

VIII. The ODD HCP Needs To Include An Adequate Funding and Enforcement Plan.

In order for the ODD HCP to be valid and effective, it must include a long-term plan to fund the ODD HCP compliance activities. (*See* 16 USC § 1539(a)(2)(B)(iii).) ODD HCP funding should not be tied to general funding mechanisms for the State Parks, but should instead operate independently or receive specially designated funds. This is particularly important because agency budgets can fluctuate due to general economic conditions – funding of ODD HCP compliance should remain constant regardless of economic conditions.

While enforcement of the ODD HCP and protective measures will be the responsibility of State Parks, with oversight from the USFWS and CDFW, monitoring data and reporting should be made public on the State Parks website to encourage public oversight as well. Agency staff tasked with enforcing the ODD HCP must also have sufficient experience, expertise, and resources to ensure compliance with ODD HCP. Enforcement and implementation activities should be conducted in consultation with the public and the environmental community, including the Center and other stakeholders.

Finally, the ODD HCP must ensure that stakeholders and the public have ample opportunity to comment on activities involving the implementation of the ODD HCP. In short, it is only through implementation, enforcement, and public participation that actual conservation outcomes can be successfully achieved.

IX. The ODD HCP Must Address Water Quality and Water Flow Associated with the Oso Flaco Lake and Creek and Arroyo Grande Creek.

The ODD HCP area includes Oso Flaco Lake and Creek and Arroyo Grande Creek and their associated wetlands and riparian areas. These areas are home to rare and endangered plants and wildlife which depend upon the freshwater habitats for their continued survival. Accordingly, the ODD HCP and environmental review must ensure that water quality and flow rates are considered and any impacts that may significantly impact flow rates or water quality have remedies and are applied in the ODD area in order to prevent water quality/quantity degradation.

X. The ODDHCP Should Clearly Define "Covered" Activities, Account for All Impacts, and Avoid, Minimize and Mitigate Those Impacts.

The ODD HCP should clearly define the "covered" activities. Impacts of motorized recreational activities in the HCP area must be fully addressed including air quality impacts from combustion emissions (including GHG emissions), gas and oil spills, and dust and particulates in the air from riding activities. In addition, the loss of intact soil surfaces and plant cover from riding must be addressed and remediated.

Trash created by recreational use and camping must also be addressed in the environmental review. Trash bins must be covered at all times to reduce attraction of predators to the HCP area which in turn impact breeding and nesting birds. If necessary, trash pick-up and hauling must be increased to reduce trash on site during busy weekends.[3] Additional educational efforts to inform visitors about the need to properly stow trash and keep it covered should be required as part of the HCP.[4] These efforts should be in addition to other needed educational efforts to reduce impacts of motorized vehicle use on the beach to covered species including plovers and terns, and to reduce impacts to steelhead habitat from motorized vehicles crossing Arroyo Grande Creek when water is flowing.

Any additional development and infrastructure that could increase riding in this area or the size and frequency of and so-called special events in the area, and thereby increase the impacts to the covered species, should not constitute "covered activities". The HCP and environmental review should consider capacity limits for the HCP area to ensure that busy weekends do not decimate species habitat and undo efforts at conservation by State Parks and others.

To the extent that the ODD HCP does allow for future motorized recreation in the HCP area to be included as "covered" activities, the environmental review must comprehensively analyze the impacts on covered species of these "covered" activities. In addition, the ODD HCP environmental review must include proper analysis and assessment of the environmental baseline and impacts from these activities as well as alternatives that could reduce impacts such as limits to covered species, air and water quality, and other impacts. The ODD HCP should explicitly provide that protocol level surveys for appropriate covered species will still be required in connection with all additional special events and projects in connection with that project's individual environmental review. This is necessary because on-the-ground conditions will vary

[3] At other parks, State Parks uses animal proof trash bins and has added more frequent trash pick-ups, including on weekends, to protect listed species from predators attracted to trash. Specifically, State Parks committed to increase animal proof food lockers and continue to use animal proof trash bins and to increase trash pick-ups at Big Basin Redwood State Park, Portola Redwoods State Park, and Butano State Park to protect marbled murrelet populations (*See* Stipulated Judgement and Settlement Agreement (attached as Attachment B).)

[4] (*Id.*) State Parks also added additional educational efforts including an educational video linked to the reservation system for these parks to help visitors understand the need to reduce trash to protect species and habitats.

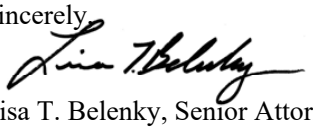
over the life of the ODD HCP, and covered species could occur in areas that were not originally noted in the ODD HCP or evaluated in the environmental review.

Lastly the ODD HCP needs to include an alternative that would limit the number of vehicles allowed to ride on the beach at any given time that would be compatible with management of the covered species.

XI. Conclusion

Thank you for the opportunity to submit scoping comments on the ODD HCP and the environmental review. We look forward to working with both State Parks and USFWS to assure that the ODD HCP and environmental review conform to the requirements of state and federal law and to assure that the HCP provides for robust conservation of the covered species and other special status species in the HCP area. We hope and expect that all significant impacts to the environment from the covered activities are fully analyzed, avoided, minimized or if necessary mitigated. Please do not hesitate to contact me at the Center with any questions at the number listed below. We look forward to reviewing the ODD HCP and the environmental review document once they are made available for public review.

Sincerely,



Lisa T. Belenky, Senior Attorney
CENTER for BIOLOGICAL DIVERSITY
1212 Broadway, Suite 800
Oakland, CA 94612
lbelenky@biologicaldiversity.org

cc: David Hacker CDFW David.Hacker@wildlife.ca.gov

Attachments:

Attachment A: Photo of plovers loafing in tire tracks on Oceano Dunes SVRA beach.

Attachment B: Settlement Agreement

Attachment A

Photo: I. Anderson, Nov. 27, 2017

Attachment B

KAMALA D. HARRIS
Attorney General of California
CHRISTIANA TIEDEMANN
Supervising Deputy Attorney General
SUSAN A. AUSTIN
Deputy Attorney General
State Bar No. 184180
1515 Clay Street, 20th Floor
P.O. Box 70550
Oakland, CA 94612-0550
Telephone: (510) 622-2139
Fax: (510) 622-2270
E-mail: Susan.Austin@doj.ca.gov
Attorneys for
Department of Parks and Recreation and California State Park and Recreation Commission

FILED
MAR 18 2014
ALEX CALVO, CLERK
BY JUSTINE KHOURY
DEPUTY, SANTA CRUZ COUNTY

FILED BY FACSIMILE

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SANTA CRUZ

CENTER FOR BIOLOGICAL DIVERSITY, Petitioner and Plaintiff, **v.** **CALIFORNIA DEPARTMENT OF PARKS AND RECREATION, an agency of the State of California; and CALIFORNIA STATE PARK AND RECREATION COMMISSION,** Respondents and Defendants.	Case No. CV177159 **STIPULATION FOR ENTRY OF JUDGMENT AND PROPOSED JUDGMENT** Judge: Hon. Paul M. Marigonda Dept.: 5 Action Filed: June 19, 2013

The parties to this action, Petitioner and Plaintiff Center for Biological Diversity and Respondents and Defendants California Department of Parks and Recreation and California State Park and Recreation Commission, by and through their counsel of record, agree and stipulate to entry of judgment in this action as follows:

1. Judgment will be entered in this action pursuant to the terms and provisions of the Settlement and Release attached hereto as Exhibit 1 and incorporated herein by reference.

2. The parties waive all rights of appeal from the judgment.

3. The court shall retain jurisdiction to enforce the provisions of the judgment as indicated in the attached Settlement and Release Agreement.

IT IS SO STIPULATED.

Date: 1.28.2014

KAMALA D. HARRIS
Attorney General of California
CHRISTIANA TIEDEMANN
Supervising Deputy Attorney General

Susan A. Austin

SUSAN A. AUSTIN
Deputy Attorney General
Attorneys for Respondents and Defendants Department of Parks and Recreation and California State Park and Recreation Commission

Date: 1/24/14

CENTER FOR BIOLOGICAL DIVERSITY

Lisa T. Belenky

LISA T. BELENKY
Attorney for Petitioner and Plaintiff Center for Biological Diversity

JUDGMENT

IT IS HEREBY ORDERED that judgment is entered pursuant to the terms of the parties' Stipulation for Entry of Judgment as set forth above.

Date: MAR 13 2014

PAUL M. MARIGONDA

HON. PAUL M. MARIGONDA
JUDGE OF THE SUPERIOR COURT

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Exhibit 1

SETTLEMENT AND RELEASE AGREEMENT

This Settlement and Release Agreement ("Agreement") is made and entered into by and among, the California State Park and Recreation Commission ("Commission") and the California Department of Parks and Recreation ("Department") (collectively "State Parks"), on the one hand, and the Center for Biological Diversity ("the Center"), a nonprofit public interest corporation. State Parks and the Center are individually referred to in this Agreement as a "Party" and collectively as the "Parties." The Parties make this Agreement in light of the following recited facts (each a "Recital").

RECITALS

A. On May 17, 2013, the Commission approved the Department's Big Basin Redwoods State Park General Plan ("Project" or "General Plan"), certified a final environmental impact report ("EIR"), and adopted a Statement of Overriding Considerations for the Project. The Department filed the Notice of Determination on May 20, 2013, which was received by the State Clearing House on May 21, 2013, and was assigned State Clearing House Number 2001112104.

B. Challenging the EIR and General Plan approval under the California Environmental Quality Act ("CEQA") and the California Endangered Species Act ("CESA"), the Center timely filed a Petition for Writ of Mandate and Complaint for Declaratory Relief in the Superior Court of the State of California, Santa Cruz County, *Center for Biological Diversity v. California Department of Parks and Recreation, et al.*, Case No. CV 177159 ("CEQA Lawsuit").

C. State Parks disputes the allegations and contentions raised in the Center's CEQA Lawsuit.

D. The Parties recognize that continuing their dispute over the General Plan and the CEQA Lawsuit will result in significant costs to each Party, with an uncertain outcome to each Party. Through this Agreement, the Parties now wish to resolve their disputes over the General Plan and the Center's CEQA Lawsuit.

E. This Agreement's language binding principals, directors, officers, and agents is effective only to the extent that such entities or people can be legally bound by such agreements.

In consideration of the above recitals, which are incorporated herein, and the promises set further herein, the Parties agree as follows:

AGREEMENT

1. Marbled Murrelet Protection. The marbled murrelet is a federally threatened Pacific seabird that nests in the upper branches of old growth redwood and Douglas Fir trees in the Santa Cruz Mountains region, including in the following three state parks: (1) Big Basin Redwoods State Park ("Big Basin") (composed of the main part of the park ["Big Basin proper"] and a recently-acquired part of the park ["Little Basin"]). (2) Portola Redwoods State Park

("Portola"), and (3) Butano State Park ("Butano"). (See map attached as Exhibit A.) To further efforts to protect the marbled murrelet, Parks agrees to do the following:

A. Trash management program

Implement the following trash management measures by the specified dates in Big Basin Redwoods, Portola, and Butano State Parks, to improve upon existing measures:

(A1) Contract with a waste management provider to empty all of the dumpsters in Big Basin proper (not including Little Basin) on a frequent, regular schedule that will prevent trash overflow, particularly during peak visitation times. This would require emptying dumpsters on the weekends and holidays. Amend the contract with the waste management provider at Little Basin to address the issue of full dumpsters during peak use in the summer. New trash pick-up measures must be implemented by April 2014.

(A2) By April 2014, ensure sufficient permanent and seasonal maintenance staff to monitor and empty the animal-proof trash bins throughout the Parks to prevent trash overflow. Provide a mechanism for park visitors to notify staff if trash bins or dumpsters are overflowing and a plan for park staff to clean up any overflow within two hours of being notified.

(A3) Animal proof trash containers are already installed in human-use areas of Big Basin proper and at Portola and Butano State Parks. By April 2014, install a sufficient number of animal-proof, user-friendly trash bins and dumpsters in all human-use areas in Little Basin, making sure that bins are large enough and numerous enough to prevent spill-over during peak visitation.

(A4) By April 2014, install animal-proof food lockers in all campsites and cabin sites in the Parks, including the Little Basin campground.

(A5) By April 2014, post "no dishwashing" signs at all spigots. Several studies are underway in other parks to test the efficacy of different types of drain grates to prevent birds and other animals from eating food scraps left under the spigots. When the data are available and if drain grates are effective, Parks will install grates under the spigots in the campgrounds. In addition, Parks will retrofit the existing campground restroom buildings with dishwashing facilities as follows.

(a) There are fourteen restroom buildings with running water and flush toilets in Big Basin campgrounds. By May 31, 2015, Parks will install a dishwashing station at seven or more of these restroom buildings, distributed across the campgrounds to reflect visitor use to the extent possible.

(b) There are two restroom buildings with running water and flush toilets at the main Portola campground. By May 31, 2015, Parks will install a dishwashing station at one or both of these restroom buildings.

(c) Sky Meadows campground in Big Basin has running water and vault toilets. By June 30, 2016, Parks will install at least one dishwashing station.

(d) Unlike the restroom buildings in (a), (b), and (c), the following have not yet been retrofitted to be compliant with the Americans with Disabilities Act ("ADA"): (1) the restroom building in Butano and (2) the restroom building at the Portola group campground. When these restroom facilities are retrofitted to be ADA compliant, Parks will install a dishwashing station at each.

(A6) Parks, together with other local, state, and federal agencies, has created highly visible, user-friendly, and durable weather-resistant signs to educate visitors to discard trash in animal-proof bins, to clean up crumbs, and to refrain from feeding birds and other wildlife. New signs to educate visitors with the message "Keep it crumb clean: never leave food unattended, use food lockers where available, never feed wildlife, your crumbs attract jays and ravens who eat eggs and babies of endangered marbled murrelets", have already been posted in some areas. By April 2014, these or similar signs should be posted at all visitor facilities in the Parks including all campsites, campground information kiosks, food storage lockers at campsites and cabin sites, visitor centers, nature centers, stores, picnic areas, picnic tables, bathrooms, dumpsters, trailheads, and at the parking lot information kiosks for Berry Creek Falls and Sunset Trail Camp. The same or similar signs should be posted in Spanish in at least one-third of the locations.

B. Public education measures

(B1) Make the marbled murrelet a focal point of a comprehensive, sustained public education campaign within Big Basin Redwoods State Park to encourage park visitors to participate in saving the Santa Cruz Mountains marbled murrelet by not feeding wildlife and by properly storing and throwing away all trash.

(B2) By April 2014, at Big Basin, Portola, and Butano State Parks, incorporate into publications including park event schedules, natural history literature, and a brochure to be made available in the Sempervirens room (or similar location), information that: (i) identifies the marbled murrelet as a focal point of the Park, (ii) highlights its precarious status in the Santa Cruz Mountains and provides natural history highlights about the marbled murrelet, (iii) discusses the threat that visitor trash poses to the marbled murrelet by attracting jays and ravens, (iv) discusses the importance of not feeding jays, ravens, and other wildlife, and keeping areas free of trash and crumbs and (v) educates Park visitors regarding appropriate dish-washing techniques.

(B3) As soon as feasible and at the latest at the time a new reservation contract is in place, Parks will arrange for campers to receive with their reservation a digital link to a short, educational video about the marbled murrelet. The link will be sent to campers with all correspondence regarding their reservation. The video will include information that: (i) identifies the marbled murrelet as a focal point of the Park, (ii) highlights its precarious status in the Santa Cruz Mountains and provides interesting natural history highlights about the marbled murrelet, (iii)

discusses the threat that visitor trash poses to the marbled murrelet by attracting jays and ravens, (iv) discusses the importance of not feeding jays, ravens, and other wildlife, and keeping areas free of trash and crumbs and (v) educates Park visitors regarding appropriate dish-washing techniques and the new dishwashing stations. The video should be provided in English and Spanish.

(B4) By April 2014, create marbled murrelet displays in high use areas of the Park. Display areas will include but are not limited to the Sempervirens Room (or similar location) in the Headquarters Building, the Nature Lodge, and the future visitor contact center at Saddle Mountain. At the Nature Lodge, the existing marbled murrelet video should be made visible by creating an accompanying sign alerting the visitor to the video; the Spanish language option for the video should be operational.

(B5) By April 2014, approach Audubon or another potentially interested partner with citizen science experience to create and run a citizen science program focused on the marbled murrelet, nest predation, and trash. For example, this program and a website could allow visitors to record (a) sightings of marbled murrelets; (b) sightings of Steller's jays, common ravens, and other wildlife; (c) where animals are seen eating human food; (d) overflowing trash bins and dumpsters; (e) where they see trash on the ground. If Parks, after making a good faith effort, is unsuccessful in finding an interested partner to create and run a citizen science program, Parks shall have no obligation to initiate a citizen science program of its own.

(B6) By April 2014, complete an education session for all Park staff in Big Basin, Portola, and Butano State Parks on the new marbled murrelet conservation measures with guidance on how to talk with Park visitors and enforce the measures.

(B7) Continue the interpretive program on the marbled murrelet that is presented by Parks staff at interpretive and educational programs at the Campfire Center. The program will include information that: (i) identifies the marbled murrelet as a focal point of the Park, (ii) highlights its precarious status in the Santa Cruz Mountains and provides natural history highlights about the marbled murrelet, (iii) discusses the threat that visitor trash poses to the marbled murrelet by attracting jays and ravens, (iv) discusses the importance of not feeding jays, ravens, and other wildlife, and keeping areas free of trash and crumbs, and (v) educates Park visitors regarding appropriate dish-washing techniques and the new dishwashing stations.

(B8) Continue to incorporate information on marbled murrelet conservation on guided hikes in the Park. For example, the Redwood Loop Trail passes by a giant tree where marbled murrelets have nested, providing an opportunity for visitor education.

(B9) During the peak camping season (from April to September), continue to hire staff dedicated to talking to visitors in the Headquarters area and all campgrounds about not feeding wildlife, proper disposal and storage of food, and marbled murrelet conservation. It is especially important to talk to campers at mealtimes (breakfast, lunch, dinner).

C. Monitoring and Adaptive Management

To implement Parks' commitment to undertaking adaptive management activities on State Park properties as part of a larger regional effort to conserve and protect the marbled murrelet, Parks will take the following steps:

(C1) On or before January 31, 2017, Parks will compile and analyze all survey data collected as a result of activities described in (D2) and other relevant information from the 2014, 2015, and 2016 seasons, including the analysis of long-term trends through and including the 2016 season using the long-term survey data, and make this data, analysis, and information available to the public on its website. Parks will take steps to seek input from U.S. Fish and Wildlife Service, California Department of Fish & Game, and other experts on marbled murrelets and seabirds in evaluating the data and information.

(C2) Based on the evaluation of the data and information and input from members of the public, agencies, and experts (if any), Parks will make a determination on or before March 31, 2017, whether adaptive management measures need to be implemented in the Parks to provide additional protection for the marbled murrelet in Big Basin, Portola, and Butano State Parks. Additional measures considered will include potential closures of human-use areas. Parks' determination of whether or not any adaptive management measures are needed, and the basis for the determination, will be memorialized in writing and made available to the public on its website within 5 business days.

(C3) Parks will undertake the same compilation and analysis of data and information, public notice, outreach to wildlife agencies and experts, and a determination regarding any needed adaptive management every 3 years (January 31/March 31, 2020, January 31/March 31, 2023) until and unless a new general plan is adopted for Big Basin Redwood State Park.

D. Coordination and Funding

(D1) A number of the actions to protect the marbled murrelet will require funding, and these commitments are made subject to availability of funding. Parks commits to apply for funding these activities through available sources such as state funding, federal funding including the Fish and Wildlife Service's Section 6 funds, Oil Spill Natural Resource Damage Assessment (NRDA) Restoration Funding when applicable, California Coastal Conservancy, and others.

(D2) Funding is already established though the year 2020 for (1) at-sea surveys to determine overall regional marbled murrelet numbers and locations; and (2) corvid studies to determine predator numbers. Funding will also be sought for other types of studies. State Parks will apply for funding to continue (1) annual audio-visual studies to evaluate marbled murrelet nesting activity in Big Basin, Portola, and Butano State Parks, and will seek funding for (2) radar surveys at the mouth of Waddell, Butano, and Pescadero Creek several times a year to provide another index of inland marbled murrelet activity.

(D3) Working towards the recovery of the marbled murrelet will require a regional effort that includes State Parks was well as other agencies and organizations and dedicated funding. Parks will take an active role to support a regional effort to protect the marbled murrelet. Parks will continue to support regional and Park specific monitoring and research efforts by providing access, complimentary camping, and assistance with permits.

E. Corvid management measures

(E1) Beginning in 2014, contingent on approval and funding from the Luckenbach Oil Spill Trustee Council, implement conditioned taste aversion experimental treatments in Big Basin Redwoods State Park. Implementation is planned to occur within 1.5 kilometers of facilities including the campgrounds. The treatments should have well-defined measures to evaluate effectiveness. If the taste aversion treatments in Big Basin, Portola, and Butano, State Parks prove successful in reducing nest depredation, State Parks will continue to seek funding for these measures and implement these measures (contingent on funding being secured).

(E2) Continue with raven depredation efforts utilizing park staff. Evaluate the current program in fall 2014. Following that evaluation, alternative approaches may be deployed as needed, including but not limited to hiring outside experts to remove ravens from the Park for two seasons. If an alternative approach is undertaken, it will be evaluated in fall 2016 to determine whether to continue or whether a different program for raven management is needed.

(E3) Steller's jay adults in Park campgrounds produce large numbers of juveniles, many of which remain in the Park or disperse back into the Park. By April 2014, the Park should draft a plan that considers options for the humane removal of Steller's jay juveniles from the campground areas of the Park at the end of each jay breeding season. Scientists are currently conducting research on jays. This research will assist Parks in making decisions regarding the removal of jays.

F. Other

(F1) Parks currently has a staff position dedicated to overseeing and implementing marbled murrelet mitigation measures. In the next fiscal year, Parks will seek to make that position permanent.

(F2) Park Rangers have full peace officer powers to enforce laws within the parks, including laws pertaining food storage (14 CCR § 4323), feeding wildlife (14 CCR § 4305; 36 CFR § 2.2) and littering (California Penal Code § 374.4; 14 CCR § 4310). Officer discretion is an important part of their authority and they use their discretion to warn, cite, or arrest violators as the situation requires. Park Rangers will continue to talk with visitors one-on-one when issuing warning tickets or citations to explain the importance of following the rules to protect marbled murrelets.

(F3) Parks will comply with the CEQA before proceeding with any site-specific proposals to build new infrastructure in and adjacent to old-growth habitat in Big Basin Redwoods State Park.

2. ADA Compliance. In carrying out the activities described in 1.B5 (above), State Parks shall comply with the Americans with Disabilities Act to the extent such compliance is required by law.

3. Effective Date. The effective date of this Agreement ("Effective Date") shall be the date the Agreement becomes signed by all of the Parties. Accordingly, each Party shall include the date it executes the Agreement next to its respective signature, and the Effective Date shall be the latest of these dates. The Agreement may be executed in counterparts.

4. Free and Voluntary Agreement. Each Party represents and warrants that its execution of this agreement and release is free and voluntary and acknowledges its independent right, absent this agreement, to litigate the CEQA Lawsuit.

5. Attorneys' Fees and Costs. Parks agrees to pay the Center's attorneys' fees and costs in connection with the CEQA Lawsuit and the negotiation of this Agreement in the amount of $33,795.57. Payment shall be made in the form of a check made payable to the Center for Biological Diversity and shall be sent to Lisa Belenky, Senior Attorney, Center for Biological Diversity, 351 California Street, Suite 600, San Francisco, CA 94104.

6. Continuing Jurisdiction. The Parties agree that consistent with California Code of Civil Procedure Section 664.6, the Santa Cruz County Superior Court shall retain continuing jurisdiction over the Parties to enforce the terms of this Agreement for ten years after the Effective Date.

7. Stipulated Judgment. It is hereby stipulated by and between the parties that Santa Cruz Superior Court action number CV 177159 is settled and judgment shall be entered pursuant to the terms and conditions of this Agreement, which are and shall be binding on the parties hereto.

8. Notice. All notices under this Agreement shall be in writing. All notices shall be effective when personally delivered, or e-mailed, or 48 hours after deposit in the United States mail, as registered or certified mail, postage prepaid, return receipt requested, to the following representatives of the parties at the addresses indicated below:

If to California Department of Parks and Recreation:

Kathryn J. Tobias
Senior Staff Counsel
California State Parks
1416 9th Street, P.O. Box 942896
Sacramento, CA 94296-0001
kathryn.tobias@parks.ca.gov

With a copy to:

Susan A. Austin
Deputy Attorney General
California Attorney General's Office
1515 Clay Street, 20th Floor
Oakland, CA 94612
susan.austin@doj.ca.gov

If to the Center for Biological Diversity:

Lisa T. Belenky, Senior Attorney
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
(415) 632-5307
lbelenky@biologicaldiversity.org

With a copy to:

Shaye Wolf, Climate Science Director
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
(415) 632-5301
swolf@biologicaldiversity.org

9. Modification. This Agreement may not be altered, amended, modified or otherwise changed except by writing duly executed by authorized representatives of the Parties. A Party seeking to modify the Agreement shall make a request for modification according to the

notice provisions of paragraph 8. The other Party shall respond to the request within 15 calendar days, and acceptance of the request shall not be unreasonably withheld.

10. Informal Negotiations. In the event a Party believes that the other Party is in default of any provision or provisions of this Agreement, that Party shall provide the other Party with written notice of the alleged default pursuant to the notice procedures identified in paragraph 8.

10.1. Notice of Default or Notice of Claim. The written notice shall identify the provision of the Agreement that the Party believes has been breached and/or circumstances have arisen that require immediate injunctive relief, a general summary of the facts supporting the alleged default or circumstances and, where appropriate, the manner in which the default or circumstances may be satisfactorily cured. Failure or delay in giving notice of any default shall not constitute a waiver of any default, nor shall it change the time to cure the default.

10.2. Informal Dispute Resolution. After notice of default is given, the Parties shall commence good faith negotiations to resolve the dispute no later than 15 days from the date of the written notice.

10.3. Cure Period. The Party who is alleged to be in default shall have 30 days from the date of the written notice to cure the alleged default, or, if the default cannot be fully cured in the 30-day period, make reasonable efforts to commence to cure the default within the period and, thereafter, diligently prosecute such cure to completion.

10.4. Judicial Action. The Parties agree that in the event of any dispute over the terms of this Agreement, including any default issues, they will first undertake the Informal Dispute Resolution process outlined above in paragraph 10.2. Any dispute not resolved through such informal dispute resolution may be submitted to the Superior Court of Santa Cruz. The Parties further agree that in any such proceeding they will not reinstate any claims otherwise compromised by this Agreement. Nothing in this provision, however, relinquishes or waives the right of any party to seek immediate injunctive relief.

10.5. Timing. The Parties agree that they have a strong, mutual interest in having any judicial dispute resolved as quickly as possible. Accordingly, within ten days of the filing of any judicial action pursuant to paragraph 10.4, the Parties agree to meet and confer in good faith to discuss and attempt to agree upon procedural methods for achieving an early resolution of the claim through motions or other procedures.

11. Waiver of Right to Enforce. The failure of any Party to enforce any term, covenant, or condition of this Agreement on the date it is to be performed shall not be construed as a waiver of that Party's right to enforce such term, covenant or condition, or any other term, covenant, or condition of this Agreement. A waiver of any Party's right to enforce any provision of this Agreement shall not be effective unless such a waiver is made expressly in writing. An express waiver of any one breach shall not be deemed a waiver of any other breach of the same or any other provision of this Agreement.

12. Headings. The paragraph headings herein are for the convenience of the Parties and are not intended to be used as an aid to interpretation of the terms of this Agreement.

Date 2/26/2014

CALIFORNIA STATE PARK AND RECREATION COMMISSION; CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

By: Anthony L. Jackson

Major General Anthony L. Jackson, USMC (Ret.)
Director, California Department of Parks and Recreation

Date 1/24/14

CENTER FOR BIOLOGICAL DIVERSITY

By: Lisa T. Belenky

Lisa T. Belenky, Senior Attorney

Approved as to form:

Date 1/24/14

CALIFORNIA STATE PARK AND RECREATION COMMISSION; CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

By: Kathryn J. Tobias

Kathryn J. Tobias, Senior Staff Counsel

Date 1.28.2014

ATTORNEY GENERAL OF THE STATE OF CALIFORNIA

By: Susan A. Austin

Susan A. Austin, Deputy Attorney General
Attorneys for the California State Park and Recreation Commission and the California Department of Parks and Recreation

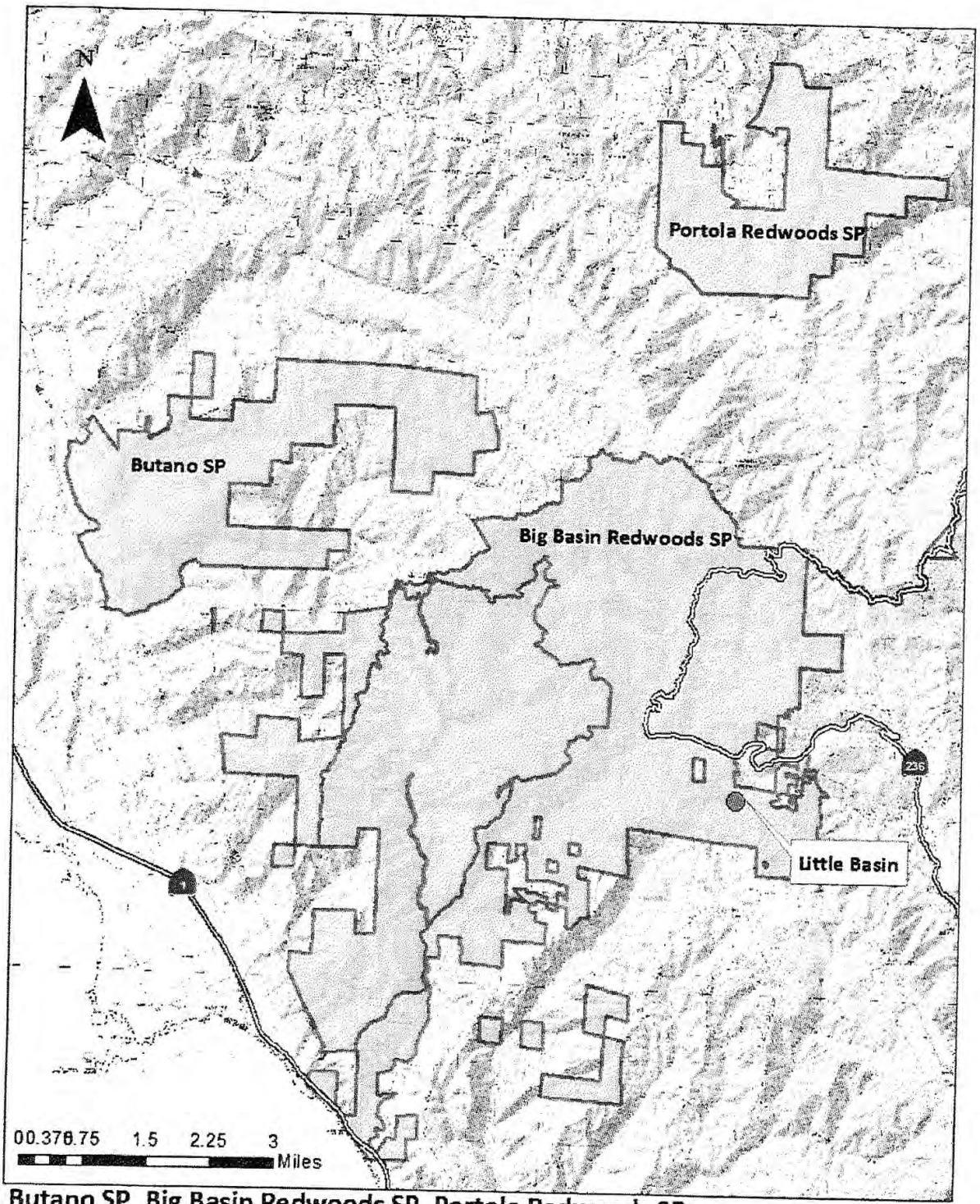
Date: January 23, 2014

CHATTEN-BROWN & CARSTENS

By: _____

Jan Chattan-Brown
Michelle Black
Attorneys for the Center for Biological Diversity

EXHIBIT A



Butano SP_Big Basin Redwoods SP_Portola Redwoods SP

DECLARATION OF SERVICE BY U.S. MAIL

Case Name: *Center for Biological Diversity v. CA Dept of Parks & Rec., et al.*
No.: Santa Cruz Superior Court Case No.: CV177159

I declare:

I am employed in the Office of the Attorney General, which is the office of a member of the California State Bar, at which member's direction this service is made. I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal Service with postage thereon fully prepaid that same day in the ordinary course of business.

On March 12, 2014, I served the attached **STIPULATION FOR ENTRY OF JUDGMENT AND PROPOSED JUDGMENT** by placing a true copy thereof enclosed in a sealed envelope in the internal mail collection system at the Office of the Attorney General at 1515 Clay Street, 20th Floor, Oakland, CA 94612-0550, addressed as follows:

Jan Chatten-Brown
Douglas P. Carstens
Michelle Black
Chatten-Brown & Carstens
2200 Pacific Coast Highway, Ste. 318
Hermosa Beach, CA 90254

Lisa T. Belenky
Senior Attorney
Center for Biological Diversity
351 California Street, Suite 600
San Francisco, CA 94104

I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on March 12, 2014, at Oakland, California.

Christine Soo
Declarant

Signature

OK2013309732
90382183.doc

Law Offices of **Babak Naficy**

1540 Marsh Street
Suite 110
San Luis Obispo California
93401 ph: 805-593-0926
fax: 805-593-0946

babaknaficy@sbcglobal.net

March 12, 2018

Via US Mail and email

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

Field Supervisor
Ventura Fish and Wildlife Office
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003
lena_chang@fws.gov

Re: Oceano Dunes District HCP NOP

Dear Mr. Glick and Ms. Chang:

Sierra Club submits these comments regarding the Notice of Preparation and Public Scoping Meeting for the California Department of Parks and Recreation ("CDPR" or "State Parks"), Oceano Dunes District Habitat Conservation Plan Joint EA/EIR or Joint EIS/EIR for a (ODD HCP) issued by the CDPR on January 9, 2018, and the notice published by the U.S. Fish and Wildlife Service (FWS), "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", 83 Fed. Reg. 1380-1382 (January 11, 2018). The CDPR is proposing the HCP for issuance of an incidental take permit (ITP).

Sierra Club is a well-known California non-profit membership organization that is concerned with protection of the environment and government compliance with environmental laws. The Sierra Club has tens of thousands of members throughout the United States and California including in the vicinity of the Oceano Dunes.

A. The HCP must ensure both the survival and recovery of covered species.

Under prevailing law, the HCP cannot merely focus on the continued survival of covered species; it must also ensure the *recovery* of these species. Federal Endangered Species Act (ESA) defines "conserve" as including both survival and recovery of species: "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary." (16 U.S.C. § 1532(3)). Accordingly, the HCP must contain specific measures to "conserve," or provide for the recovery of, the species. (Sw. Ctr. for Biological Diversity v. Bartel, 470 F. Supp. 2d 1118, 1128 (S.D. Cal 2006); Sierra Club. v. Babbitt, 15 F.Supp.2d 1274, 1278 n.3 (S.D. Ala. 1998)).

The project area at Oceano Dunes also includes designated critical habitat for the western snowy plover, tidewater goby, La Graciosa thistle, and south-central California Coast steelhead. The purpose of critical habitat designations is to ensure enough territory is set aside to safeguard the species' recovery. Gifford Pinchot Task Force v. United States Fish & Wildlife Serv. (9th Cir. 2004) 378 F.3d 1059, 1070. According to Gifford Pinchot, the ESA views "conservation and survival as distinct, though complementary, goals, and the requirement to preserve critical habitat is designed to promote both conservation and survival." Id. Accordingly, under Gifford, the ODD HCP must protect and preserve in perpetuity critical habitat and other currently occupied habitat used by the covered species, and also protect habitat that would be essential for the future recovery of covered species. The ODD HCP must also avoid, or otherwise minimize and mitigate the impacts to and the taking of covered species to the **maximum extent practicable**, as required by 16 U.S.C. § 1539.

To be lawful, the HCP must include (1) a complete description of the activity sought to be authorized; (2) name of the species sought to be covered by the permit, including the number, age and sex of the species, if known; (3) the impact that will likely result from such taking; (4) the specific steps the applicant will take to monitor, minimize, and mitigate those impacts; (5) the funding that will be available to implement such monitoring, minimization, and mitigation activities; (6) the procedures to be used to deal with unforeseen circumstances; and (7) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized. (16 U.S.C. § 1539(a)(2)(A)(i)-(iv); 50 C.F.R. §§ 17.22, 17.32.) FWS cannot issue an ITP if the HCP does not contain this information. (16 U.S.C. § 1539(a)(2)(A)).

Before issuing an Incidental Take authorization, the FWS must find that (i) the taking will be incidental; (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (iii) the applicant will ensure that the plan is adequately funded; (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (v) any other measures FWS requires will be met. (16 U.S.C. §

1539(a)(2)(B); 50 C.F.R. §§ 17.22, 17.32.)

B. The ODD HCP and environmental review must address recovery of all covered species, including the threatened south-central California Coast steelhead.

As stated immediately above, ODD HCP must include specific measures to ensure the recovery of the covered species. As such, the ODD HCP and the relevant environmental review must identify and describe the overall conditions affecting covered species, including the impacts from habitat destruction and fragmentation. The ODD HCO must also include meaningful measures and proposals for both the protection and recovery of the covered species.

The covered Species include but need not be limited to:

- the federally threatened western snowy plover (*Charadrius nivosus nivosus*),
- the federally and State endangered and State fully protected California least tern (*Sternula antillarum browni*),
- the federally endangered tidewater goby (*Eucyclogobius newberryi*),
- the federally threatened California red-legged frog (*Rana draytonii*),
- the federally endangered and State threatened Gambel's watercress (*Nasturtium(Rorippa) gambelii*),
- the federally endangered and State threatened La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*),
- the federally and State endangered marsh sandwort (*Arenaria paludicola*),
- the federally and State endangered Nipomo Mesa lupine (*Lupinus nipomensis*)

The threatened south-central California Coast steelhead is also a covered species as it is affected by covered activities. Indeed, Arroyo Grande Creek, which runs through a portion of the Oceano Dunes SVRA ("ODSVRA") is part of the designated critical habitat for south-central California Coast steelhead. In fact, all vehicles accessing the camping and off-road recreation areas of the ODSVRA must cross the Arroyo Grande Creek. During storm events in the fall and spring, when steelhead or juvenile trout migrate to or from the Pacific Ocean, heavy flows in the Arroyo Grande Creek often makes it difficult, if not impossible, for vehicles in the ODSVRA to cross the creek as it flows across the beach. During these events, vehicles attempting to cross the Creek often become disabled and/or stuck in the Creek's heavy flows and require assistance. The HCP must therefore specifically address the impacts associated with vehicular crossing of the Arroyo Grande Creek.

While this species is not managed by the USFWS, but rather by NMFS/NOAA, it is a listed species whose unlawful take is prohibited. The HCP must, therefore, be revised to ensure the steelhead is a covered species. The HCP must address ways to protect steelhead and its critical habitat from the impacts of covered activities, and fully consider impacts and alternatives to avoid such impacts in the HCP and environmental review.

C. The proposed alternative that would reduce current nesting and breeding snowy plover and least tern habitat must be eliminated from further consideration and, instead, the Service should consider expanding the protected area and making the protection year-round.

CDPR's proposed alternative which would reduce nesting and breeding habitat for the snowy plover and least terns breeding habitat exclosures must be rejected. 83 Fed. Reg. at 1381. This proposal would cause take of both species and be severely damaging to the species' conservation.

It is well-settled that least terns have a high rate of return to sites where they had nested during the preceding year and have a significant tendency toward nesting at their natal colony site. Jonathan, JL, Massey, BW, 1988, Site Fidelity of Least Terns in California, The Condor 90:389-394[i]. Likewise, Western snowy plovers have a high rate of return to sites they had nested during the preceding nesting season. See, Colwell, et al., Final Report: 2014 Snowy Plover Breeding in Coastal Northern California, Recovery Unit 22. As the CDPR is aware, the creation of the seasonal exclosure for the least tern and snowy plover, which came about as a result of a settlement with the Sierra Club, has resulted in a successful breeding program at ODSVRA. Accordingly, any reduction in the size of the seasonal exclosure would significantly harm these species and likely result in unlawful take by interfering with the species nesting and breeding.

The ESA defines the term "take" to mean: "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). "Harass" has been defined by regulation 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." *See* 50 C.F.R. § 17.3 (emphasis added). "Harm" has been defined by regulation as "an act which actually kills or injures wildlife. Such act 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." *Id.*

Rather than reducing the size of the plover and terns protected nesting area, the Service should consider expanding the area and/or protecting it year-round in order to reduce the potential for impact from vehicles. As the Service is aware, in addition to the plovers that come to ODSVRA only during the breeding season, a distinct population of plovers reside in this area year-round. Each year a number of plovers are killed at the ODSVRA as a result of vehicular activities; many of these incidents occur outside the breeding season. Accordingly, expansion of the protected areas and making these areas protected year-round is vital to reduce the take of plovers at the ODSVRA.

D. The ODD HCP and Environmental Review Must Appropriately Address Least Tern as a Fully Protected Species.

The scoping notice indicates that the least tern will be a covered species under the ODD HCP. The least tern is also a fully protected species under California law, and, therefore, any take of this species is unlawful under the fully protected statute except as part of a Natural Communities Conservation Plan (NCCP). Therefore, in order for State Parks to avoid illegal take, this process should include development of an NCCP, as well as the HCP, in order to assure that conservation is fully addressed for the least tern.

E. The ODD HCP Must Address Water Quality and Water Flow Associated with the Oso Flaco Lake and Creek and the Arroyo Grande Creek and Lagoon.

The ODD HCP area includes Oso Flaco Lake and Creek and the Arroyo Grande Creek and Lagoon and their associated wetlands and riparian areas. These areas are home to rare and endangered plants and wildlife which depend upon the freshwater habitats for their continued survival. Accordingly, the ODD HCP and environmental review must ensure that water quality and flow rates are considered and any impacts that may significantly impact flow rates or water quality have remedies and are applied in the ODD area in order to prevent water quality/quantity degradation. In addition, the ODD HCP must also address San Luis Obispo County's ongoing flood control activities in and along Arroyo Grande Creek and Lagoon. In fact, the County has a practice of artificially breaching the sand bar at the Arroyo Grande Lagoon every time high water levels in the Lagoon threaten to flood the nearby residents. While the County has a practice of describing these artificial breaches as "emergency" actions, in fact, the seasonal need for such action is entirely predictable. Because the Lagoon and the sandbar are both located on ODSVRA and the County's flood control actions are conducted with the consent of the CDPR, these activities must be addressed by ODD HCP as the County's flood-control activities are capable of causing take of the federally-covered tidewater goby.

F. The ODD HCP Should Analyze CDPR's Currently Proposed and Foreseeable Dust Mitigation Activities.

The off-highway activities at the ODSVRA is responsible for significant particulate matter (PM 10 and 2.5) pollution downwind of the park on the Nipomo Mesa. The CDPR is currently engaged in some limited mitigation activities that include revegetation of certain parcels, as well as other dust mitigation, including placement of straw bales and wind fencing. Some off-roading special interest groups have suggested that some of these activities may cause take of some of the covered species. The ODD HCP should therefore cover these activities.

G. Conclusion

We thank you for the opportunity to submit scoping comments on the ODD HCP and the environmental review. We look forward to reviewing the ODD HCP and environmental review document once it is available for public review.

Sincerely,

Babak Naficy
Babak Naficy

References

1. https://sora.unm.edu/sites/default/files/journals/condor/v090n02/p0389-p0394.pdf
2. https://www.fws.gov/arcata/es/birds/WSP/documents/siteReports/California/RU2_Final_Report_2014.pdf

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Rothlaw1@comcast.net

By Email

March 12, 2018

Lena Chang
US Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003

Re: Friends of Oceano Dunes' Comments
on Oceano Dunes HCP

Dear Ms. Chang:

These comments are filed on behalf of Friends of Oceano Dunes, Inc. ("Friends"), which is a California not-for-profit corporation, representing approximately 28,000 members and users of the Oceano Dunes State Vehicular Recreation Area ("SVRA") located near Pismo Beach, California. Friends is a public watchdog organization created in 2001 expressly to preserve and expand recreational uses at Oceano Dunes SVRA.

Friends contends that the scope of the Oceano Dunes HCP here requires a full Environmental Impact Statement (EIS) analysis in order to comply with the National Environmental Policy Act. This is a complex and controversial HCP, and the resource agencies have been working on it for at least 10 years. The resource agencies have largely shielded their discussions from the public to date, and it is now time to fully reveal the issues underlying this HCP to the public by preparing a full EIS.

FWS is required to prepare an EIS for "major Federal actions significantly affecting the quality of the human environment." The HCP and any incidental take permit here would be a major federal action requiring an EIS.

Within the last year or so, FWS has undertaken an EIS, rather than an EA, for less controversial projects of similar scope and size to the Oceano Dunes HCP (or smaller). For instance, FWS announced the availability of a draft environmental impact statement and draft environmental impact report (EIS/EIR) for the proposed South Sacramento Habitat Conservation Plan (SSHCP). FWS also recently has elected to prepare an EIS for the Yolo Habitat

Conservation Plan and Natural Community Conservation Plan, the Orange County Transportation Authority (OCTA) M2 Natural Community Conservation Plan/Habitat Conservation Plan, and the Bakersfield HCP. Similarly, a full EIS must be prepared for the Oceano Dunes HCP. There is no meaningful basis to distinguish the Oceano Dunes HCP from the above HCPs in terms of the significance of the impacts that should be studied.

Friends also alerts FWS that the Oceano Dunes HCP must comply with the lawsuit settlement dated April 2003. That settlement required State Parks to return the plover exclosure boundary from Post 6 to Post 7.

Friends is particularly concerned about impacts of dust control measures at Oceano Dunes SVRA. In an EIR under CEQA, the California Department of Parks and Recreation recently determined that the public works project would have significant environmental impacts on the western snowy plover. The California Coastal Commission ignored and dismissed these findings, and authorized the placement of dust control measures within and adjacent to critical habitat for the western snowy plover, which will result in the take of the plover in violation of section 9 of the ESA, and in adverse modification of critical habitat. To remedy this error, FWS has an obligation to fully study this issue under NEPA.

Thank you.

Sincerely,

/s/

Tom Roth

Cc: Jim Suty, President, Friends of Oceano Dunes

Dear Sir,

People in Blacklake, Drilogy + all The way to Main St. Santa Maria are against The contaminated air we have to breathe because a few idiots + Their children have to drive vehicular dune buggies on our NIPOMO Beaches, + cause our air to be polluted. It has been proven to exist in the town of Santa Maria - It could result in a law suit.

Get RID OF THE DUNE BUGGIES 30 yrs of pollution is enough!

Jane Skadden
1250 Black Sage Circle
NIPOMO. CA 93444

Ph. 343-5561

for Blacklake
Greg Lomse

March 8, 2018

Lena Chang
Senior Biologist
Ventura Fish and Wildlife Office
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, California 93003

Re: Oceano Dunes HCP and NEPA Environmental Analysis

Dear Lena Chang,

The following comments are in response to the U.S. Fish and Wildlife Service's (USFWS) request for public input to identify potential issues for environmental analysis in the proposed Habitat Conservation Plan (HCP) for Oceano Dunes State Vehicular Recreation Area (ODSVRA) in San Luis Obispo County. A draft HCP and an accompanying draft National Environmental Policy Act (NEPA) document will be first available for public review when released together at a future time. Comments are limited to the federally listed Pacific coast population of the western snowy plover (plover, plovers) and several make note of take, in the form of direct mortality, due to vehicle strikes. Such mortality is expected to periodically occur at a busy Off-Highway Vehicle (OHV) park, and is an additional take threat either absent or present at a much lower level at other sites in the U.S. range of the plover. As described in the population viability analysis included in the USFWS Recovery Plan[1] for the plover small increases in adult mortality can have substantial impacts on a population over time.

Correction factor for detection of juvenile and adult plover mortality caused by vehicle strikes

Within the vehicle use area the actual number of plover carcasses found that are likely a result of vehicle strikes will certainly underestimate the total number. The vehicle use area of the park is very large and such carcasses can go unnoticed. In addition, carcasses can be quickly scavenged by gulls and other animals, crushed into the sand by passing vehicles, or

[1] U.S. Fish and Wildlife Service. 2007. Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (Charadrius alexandrinus nivosus). In 2 volumes. Sacramento, California. xiv + 751 pages.

covered by wind-blown sand. To more reasonably reflect actual take impacts there should be a correction factor applied to the number of carcasses actually found and where mortality by vehicle strike is suspected.

Take assessment of plover eggs, chicks, and juveniles and conversion to adult equivalents

Losses to take of plover eggs, chicks, and juveniles should also be expressed as adult equivalents to better identify cumulative impacts for the overall production and number of adults that are available for the subsequent breeding season (available adults are the most critical life stage to reach and sustain recovery). Because the plover is well studied at multiple sites within the U.S. range information on average survival rates of the different life stages is available for this analysis. This is the approach taken in the Oregon coast plover HCP[2] to better assess take impacts.

Threat analysis for juvenile and adult plovers during vehicle activity at night

There can be a wide range of vehicle activity at night at the park, including number of vehicles, speed, abrupt changes in direction of travel, and intensity of headlights and overhead light bars. It is likely this threat remains poorly understood and a review of the best information and professional judgement available would be beneficial. Any gaps of information on this issue pertinent for the park can be identified. I am aware of one study[3] conducted at the park in late 2004 and early 2005 involving shorebird (including the plover) response to vehicles at night. I have not seen a final and released report but it will be important to take into consideration limitations identified in the report in drawing any conclusions about this issue.

Information collected during a five-year study at ODSVRA on seasonal exclosure wrack zone and wrack-dependent invertebrates

The ODSVRA 2017 season report[4] on the plover and California least tern breeding season notes in its Recommendations section that a five-year (2007-11) study on select ecological components of the seasonal exclosure shoreline was conducted by researchers from the Marine Science Institute at the University of California Santa Barbara. The study looked at the substantial negative impacts to the wrack zone and presence of wrack-dependent

[2] ICF International. 2010. Habitat Conservation Plan for the Western Snowy Plover. August. (ICF 06537.06.) Portland, OR. Prepared for Oregon Parks and Recreation Department.
[3] Study conducted by Mad River Biologists, located at time of study in Arcata, California.
[4] Nesting of the California Least Tern and Western Snowy Plover at Oceano Dunes State Vehicular Recreation Area, San Luis Obispo County, California, 2017 Season. December 2017. Report prepared by California Department of Parks and Recreation, Off-Highway Motor Vehicle Division, Oceano Dunes District.

invertebrates (an important food resource for both adult plovers and broods) that occurred in this habitat during the time the shore is open to public use, including vehicles. The study also looked at ways to improve these resources during the breeding season. My understanding is a report detailing the findings has not yet been provided to the park. It would be valuable for both the HCP and environmental analysis to have access to the findings of this site-specific study. Information on the availability of food resources for broods and any competition for what may be a limiting resource would be valuable, especially in view of any considered reductions in the size of the seasonal exclosure shoreline that would further increase brood density and competition for invertebrate prey.

Climate Change and Sea Level Rise

ODSVRA has been designated as critical habit[5] by the USFWS, in part due to consideration for climate change and sea level rise. ODSVRA currently contains space that can accommodate inland retreat and continue to provide habitat for plovers. As the HCP may be for 25 years, ongoing management at the park should maintain space for this response to provide resiliency for plover and tern habitat. Analysis could provide information on current models for rates of sea level rise.

Thank you for the opportunity to provide comments and I look forward to reviewing the draft HCP and draft NEPA environmental analysis documents when they become available.

Sincerely,

Doug George

Doug George
Coastal Program Biologist

cc: Ellie Cohen, President and CEO
Point Blue Conservation Science

[5] Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Pacific Coast Population of the Western Snowy Plover; Final Rule. Department of the Interior, U.S. Fish and Wildlife Service. June 19, 2012.

California State Parks/U.S. Fish and Wildlife Service

Oceano Dunes Habitat Conservation Plan
February 7th, 2018 Scoping Meeting

Comment Card

Zette Harbour
NAME

785 Quintana Rd #126
ADDRESS
Morro Bay, CA 93442

ORGANIZATION /AFFILIATION

zetteharbour@gmail.com
E-MAIL ADDRESS

Comment: I appreciate that State Parks is finally moving forward with this Habitat Conservation Plan. The HCP must provide for robust conservation that ensures recovery, not just survival of all imperiled species.
The HCP should not reduce protections for nesting birds. A proposal that includes reducing protective exclosures for nesting birds to make room for recreation is unacceptable.
Increased recreation will harm nesting and breeding birds and has no place in a conservation plan.
In its environmental review, State Parks needs to address air quality impacts from increased off-road vehicle use and include a State Natural Communities Conservation Plan for fully protected species.

(Continue on back if necessary)

Thank You

From: **rachelle toti** <rachelletoti@gmail.com>
Date: Mon, Mar 12, 2018 at 12:19 PM
Subject: Comments for Draft Habitat Conservation Plan - Oceano Dunes
To: "Chang, Lena" <lena_chang@fws.gov>

I am submitting the following comments for your consideration.

I feel the following provisions should be included in the draft Habitat Conservation Plan.

1. Eliminate truck jumping events and large events of all kinds.
2. Provide a bridge over the Arroyo Grande creek when it is connected to the ocean to protect the tidewater goby, steelhead trout and other aquatic animals.
3. Eliminate night riding as this further disturbs wildlife and birds trying to rest or which hunt at night.
4. Decrease the intensity of use at the park as it is over crowded much of the time.
5. Enforce the protection of all wildlife, especially the shore birds which are driven through and frightened by vehicles.
6. Keep the Western Snowy Plover /Calif. Least Tern exclosure up year around to protect the birds which winter in this area. Currently, the fencing comes down from Oct thru Feb. This would also protect the vegetation which is run over by vehicles as soon as the fencing comes down.
7. Give citations to persons intentionally running over vegetation.

Thank you for the opportunity to provide input.

Rachelle Toti

San Luis Obispo County resident

From: June Gill [mailto:junegill21@msn.com]
Sent: Tuesday, February 6, 2018 12:15 AM
To: Glick, Ronnie@Parks <Ronnie.Glick@parks.ca.gov>
Subject: Oceano Dunes HCP

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

Attn: Oceano Dunes HCP.
Field Supervisor
Ventura Fish and Wildlife Office,
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B,
Ventura, CA 93003
lena_chang@fws.gov

Dear Sir,
While I appreciate that State Parks is finally moving forward with this Habitat Conservation Plan for Oceano Dunes State recreational vehicle area, I think The HCP must guarantee real conservation that ensures recovery , not just survival, of all imperiled species. Therefore it should not reduce protections for nesting birds. A proposal that includes reducing protective exclosures for nesting birds to make room for recreation is not a move we should make since more dunebuggies will only harm nesting and breeding birds and does not belong in a conservation plan that aims to protect endangered species like the Snowy Plover.

Sincerely,

Dr. June Gill
Santa Barbara

Sent from my Verizon, Samsung Galaxy smartphone

Scoping Comments Page 1

First Middle	Last	City	State	First Middle	Last	City	State
Andrew	Abate	Ventura	CA	Judith S	Anderson	Long Beach	CA
Amir	Abdi	Los Angeles	CA	Melody	Anderson	San Diego	CA
June	Abner	San Diego	CA	Beth	Anderson	Arroyo Grande	CA
Jesse	Abrams	Irvine	CA	Sandra	Anderson	Valley Village	CA
Alberto	Acosta	Burbank	CA	Susan	Anderson	Escondido	CA
Mike	Acosta	Riverside	CA	Joan	Andersson	Topanga	CA
Margaret	Adachi	Glendale	CA	Michelle	Angelini	Los Angeles	CA
Margaret	Adams	North Hollywood	CA	Ruth Ann	Angus	Morro Bay	CA
Spencer	Adams	Los Angeles	CA	Gina	Anson	Orange	CA
Willy	Aenlle	Altadena	CA	Martha	Ansorge	Azusa	CA
Alan Frank	Aeschliman	Long Beach	CA	Marcella	Anthony	Valencia	CA
Paul	Agosti	Rancho Cucamonga	CA	mary	anthony	Fontana	CA
Dina	Aguilar	Long Beach	CA	Judith	Antin	Sherman Oaks	CA
Rhiannon	Aguilar	Los Angeles	CA	Susaan	Aram	Dana Point	CA
Colleen	Aguirre	Castaic	CA	Christopher	Argyros	Sacramento	CA
Amy	Agzarian	Culver City	CA	Elvira	Arias	Harbor City	CA
Natalie	Aharonian	North Hollywood	CA	Behnoosh	Armani	Brea	CA
Achilles	Aiken	Whittier	CA	Elisabeth	Armendarez	Santa Ana	CA
Leslie	Aisenman	Sylmar	CA	Carlos	Arnold	Santa Maria	CA
Kim	Akeman	Pacific Grove	CA	Fernando	Arrangoiz	Beverly Hills	CA
Kathi	Aker	Tujunga	CA	Susan	Ashlock	Santa Barbara	CA
Jackee Van	Akin	Covina	CA	Kristine	Ashton	Van Nuys	CA
Tamadhur	Al-Aqeel	Los Angeles	CA	Florence	Assalit	Monterey	CA
Paul	Albright	Ojai	CA	Alexandra	Athens	Oceanside	CA
Cheryl	Alden	Solana Beach	CA	Kathryn	Atkins	San Luis Obispo	CA
Charles	Alexander	Rialto	CA	Melissa	Atkinson	Los Angeles	CA
Natalie	Alexander	Lake Forest	CA	Tupefaavae	Auelua	Victorville	CA
Judy	Alexandre	Ventura	CA	Ella	Auger	Venice	CA
Alice	Alford	Blythe	CA	Sylvie	Auger		G8Y6S9
Dennis	Allen	Santa Barbara	CA	jane	august	Topanga	CA
Lisa	Allen	Ojai	CA	Helen	Auzins		90513
susan	Allen	Lake Forest	CA	Marilyn	Avila	Whittier	CA
Tracee	Allen	Mission Viejo	CA	Rachel	Axelrod	Burbank	CA
Colby	Allerton	Venice	CA	Zoe	Azuremare	Pasadena	CA
Charles	Almack	Coronado	CA	Charles	B.	Tarzana	CA
Rawan	Almomani	Monterey Park	CA	Veronica	B.	Placerville	CA
Marge	Almond	Riverside	CA	Janet	Baas	Tarzana	CA
Gregory	Alper	Pacific Palisades	CA	Christina	Babst	West Hollywood	CA
Salma	Alquza	Bell Gardens	CA	Martin	Baclija	Riverside	CA
Steve-Rachael	Alvarezjett	Torrance	CA	Shawnee	Badger	Valencia	CA
Gloriamarie	Amalfitano	San Diego	CA	Marion Taylor	Baer	Los Angeles	CA
Gabriel	Amaro	Lake Forest	CA	Rosa	Baeza	Reseda	CA
Les	Amer	North Hollywood	CA	Carol	Baier	San Diego	CA
Krista	Amigone	Los Angeles	CA	Mary	Baker	North Hollywood	CA
Eric	Amundsen	Encinitas	CA	Barbara	Baldock	Monterey	CA
Rose	An	Arcadia	CA	Dale	Ball	La Canada Flintridge	CA
Celeste	Anacker	Santa Barbara	CA	George	Ball	Inglewood	CA
Janis	Andersen	San Diego	CA	Gloria	Bando	Santa Monica	CA
Elaine	Anderson	Chino Hills	CA	Marcia	Banks	Coronado	CA
Anabelle	Anderson	La Verne	CA	Denise	Barger	Bishop	CA
Connie	Anderson	Camarillo	CA	Rebecca	Barker	Glendora	CA
Frank B.	Anderson	San Pedro	CA	Gary	Barnett	Phelan	CA

First Middle	Last	City	State	First Middle	Last	City	State
Roberleigh	Barnhart	Grover Beach	CA	Janek	Bielski	Sunland	CA
D. R.	Baron	Sherman Oaks	CA	Elaine	Bierman	San Diego	CA
John	Barone	Santa Monica	CA	Shelley	Billik	Encino	CA
Laurie	Barre	Altadena	CA	Greg	Bishop	Los Alamitos	CA
Elaine	Barrett	San Diego	CA	Inge	Bjorkman	Placerville	CA
Debra	Barringer	Santa Barbara	CA	C	Black	Costa Mesa	CA
Janice	Bartlett	San Diego	CA	Glenn	Black	Ontario	CA
Kiku	Bartschi	Santa Barbara	CA	Hillary	Black	Los Angeles	CA
N. J.	Bast	Morro Bay	CA	Josephine	Black	Carpinteria	CA
Rosanne	Basu	Hermosa Beach	CA	Jeri	Black	Irvine	CA
Elizabeth	Bauman	Los Angeles	CA	Gina	Blades	Santa Clarita	CA
Judith	Bayer	San Diego	CA	Richard	Blain	Temecula	CA
Jackie	Bear	Los Angeles	CA	Elissa	Blair	Eureka	CA
Janet	Beatty	San Luis Obispo	CA	Gary	Blair	Costa Mesa	CA
Laura	Bebault	Huntington Beach	CA	Sheila	Blake	Pismo Beach	CA
Corinna	Bechko	Los Angeles	CA	Russell	Blandino	Burbank	CA
David	Beck	San Juan Capistrano	CA	Elisabeth	Blaney	San Gabriel	CA
Connie	Beck	El Cajon	CA	Carol	Blaney	Redlands	CA
Carol	Becker	Sherman Oaks	CA	Sabrina	Blash	San Juan Capistrano	CA
Shari	Becker	West Hills	CA	Patricia	Bleha	Carlsbad	CA
Mary	Becker	Encino	CA	Ralph	Bocchetti	Fontana	CA
Gary	Beckerman	Santa Ynez	CA	MaRia	Bodmann	Granada Hills	CA
Brice	Beckham	Los Angeles	CA	Susan	Bohannan	Santa Ana	CA
Dan	Beeman	San Diego	CA	Julie Du	Bois	Canoga Park	CA
Victoria	Behar	Thousand Oaks	CA	Richard	Bold	Vista	CA
Ann	Bein	Los Angeles	CA	Randall	Boltz	San Diego	CA
Michmicharlael	Bellinger	Canoga Park	CA	Steve	Bond	Los Angeles	CA
Mercedes	Benet	Carlsbad	CA	Mary	Bonhote	Santa Ana	CA
Nancy	Beningo	Los Angeles	CA	Joseph	Boone	San Luis Obispo	CA
Elaine	Benjamin	Alpine	CA	Carolyn	Boor	Rancho Cucamonga	CA
maureen	benjelloun		ts69aj	Michael	Bordenave	Fresno	CA
Travis	Benneian	Lake Elsinore	CA	Sylvia	Boris	Culver City	CA
John	Bennett	Chino	CA	Robert	Bortolin	El Segundo	CA
Allison	Benoit	Gonzales	CA	Deborah	Bortot	Fontana	CA
Richard	Benson	Lawndale	CA	Lynn	Bossone	Culver City	CA
Zinka	Benton	Santa Barbara	CA	Marty	Bostic	Los Angeles	CA
Myra	Berario	Castaic	CA	Vic	Bostock	Altadena	CA
Marie-Ange	Berchem	Garden Grove	CA	Joy	Bosworth		FY1
Elaine	Berg	Simi Valley	CA	Lesley	Bosworth		FY1
Melissa	Bergemann	Venice	CA	Eleni	Bountalis	Los Angeles	CA
Brad	Berger	Pioneertown	CA	Sandi	Bowen	Menifee	CA
Karen	Berger	Montrose	CA	Olga	Bowles	Fresno	CA
Colleen	Bergh	Santa Ana	CA	Ann	Bowman	Santa Monica	CA
Debi	Bergsma	Fontana	CA	Jennifer	Bradley	Santa Monica	CA
Rachel	Berks	Los Angeles	CA	Jacqui	Bradshaw	Tehachapi	CA
Jennifer	Berman	Los Angeles	CA	Tim	Brady	Aliso Viejo	CA
Daniel	Berns	Desert Hot Springs	CA	Tim	Brady	Aliso Viejo	CA
Lorik	Bernstein	Huntington Beach	CA	Dennis	Brand	Santa Barbara	CA
David	Berry	Los Angeles	CA	Victoria	Brandon	Northridge	CA
Hans	Bertsch	Imperial Beach	CA	Julia	Brandreth	Los Angeles	CA
Elizabeth	Bettenhausen	Cambria	CA	Kelly	Brannigan	Oceanside	CA
Terry	Bezner	Torrance	CA	Teresa	Bransfield	Arroyo Grande	CA

First Middle	Last	City	State	First Middle	Last	City	State
Tom	Brasseur	Palm Springs	CA	Connie	Call	Los Angeles	CA
Joseph	Braus	Burbank	CA	Rich	Camp	San Bernardino	CA
Gayle	Brennan	Woodland Hills	CA	Joyce	Campbell	Torrance	CA
Carol	Brenner	Moorpark	CA	Gilbert	Canary	Upland	CA
Jeff	Brent	Fontana	CA	Elaina	Caner	Mission Viejo	CA
Rachel	Bretado	San Diego	CA	Shari	Canete	San Diego	CA
Marianna	Breton	Diamond Bar	CA	Rl	Cannon	Thousand Oaks	CA
Mastaneh	Brett	Carmel	CA	Ina	Cantrell	La Mesa	CA
Ann	Breuer	Centralia	IL	Diane	Cantwell	Tujunga	CA
Tamara	Briggs	Rancho Cucamonga	CA	Raymond	Capezzuto	Encinitas	CA
Lisabette	Brinkman	Santa Barbara	CA	Junko	Card	Exeter	CA
Joanne	Britton	San Diego	CA	David	Carlson	West Hollywood	CA
David	Broadwater	Atascadero	CA	David	Carlson	Carlsbad	CA
Blaise	Brockman	Arcadia	CA	Judith	Carlson	Newport Beach	CA
Allison	Brooker	Los Angeles	CA	Patricia	Carlson	Los Angeles	CA
Elena	Brookes	Ventura	CA	Ravin	Carlson	San Clemente	CA
Mary	Brooks	Frazier Park	CA	Gina	Carollo	San Diego	CA
Linda	Brophy	Santa Barbara	CA	Anjanette	Caron	Alhambra	CA
Ron	Broschart	Ventura	CA	Cathy	Carpenter	Adelanto	CA
Carol	Broughton	Hemet	CA	Rhonda	Carr		40740
James R	Brown	Los Angeles	CA	Seth	Carr	Long Beach	CA
Shelley	Brown	Los Angeles	CA	Ken	Carrell	Lake Forest	CA
Damon	Brown	Los Angeles	CA	Nancy	Carter	Westlake Village	CA
Dace	Brown	San Diego	CA	Jennifer	Cartwright	Mission Viejo	CA
Emma	Brown	Santa Monica	CA	Veronica	Casale	San Diego	CA
Roderick	Brown	San Diego	CA	Mary Casares	Casares	Long Beach	CA
Rosalie	Brown	Fresno	CA	Stewart	Casey	Garden Grove	CA
Lisi	Brown	Burbank	CA	Lisa	Cash	Sherman Oaks	CA
Justine	Bruhanski	Lancaster	CA	Tiffany	Casler	Laguna Beach	CA
Stephen	Bryne	Ventura	CA	Virginia	Castellanos	Coronado	CA
George	Budd	Los Angeles	CA	Suzie	Castle	Morro Bay	CA
Heidi	Buech	Los Angeles	CA	Kari	Castro	Santa Ana	CA
tammy	bullock	El Cajon	CA	Joseph	Catania	Fresno	CA
Kat	Burgess	Santa Monica	CA	Michael	Cavanaugh	Redondo Beach	CA
Holly	Burgin	Van Nuys	CA	Kim	Central	La Crescenta	CA
Bonnie	Burke	San Diego	CA	Rosie	Cerda	La Mesa	CA
Bentley	Burn	Santa Monica	CA	Veronica	Cerpa	South El Monte	CA
Shawn	Burn	San Luis Obispo	CA	Kay	Cessna	Los Angeles	CA
Lou	Burrola	Hawaiian Gardens	CA	Patricia	Chamberlain	San Diego	CA
Jasmeen	Burton	Reseda	CA	B.	Chan	San Diego	CA
JESSICA	BURTON	Riverside	CA	Gabriel	Chang	Bellflower	CA
Ricki	Bush	Van Nuys	CA	Cherie	Chantal	Moorpark	CA
Connie	Butler	San Clemente	CA	Marcy	Chapin	San Luis Obispo	CA
Sam	Butler	Los Angeles	CA	John	Charbonneau	Spring Valley	CA
Kimberly	Buzdygon	Claremont	CA	Carol	Chargualaf	La Mirada	CA
Barbara	Byer	Pasadena	CA	Michelle	Charime	Tarzana	CA
Sharon	Byers	Downey	CA	Connie	Charles	El Cajon	CA
F	C	Venice	CA	Lindsay	Charlton	Goleta	CA
Carlos	Cabezud	San Ysidro	CA	Danielle	Charney	Santa Monica	CA
L	Cadman	San Diego	CA	Phyllis	Chavez	Santa Monica	CA
Maxine	Cain	Altadena	CA	Aimee L.	Cheek	San Diego	CA
Ursula	Calef	Laguna Beach	CA	Mark	Chenevey	Long Beach	CA

First Middle	Last	City	State
Carole	Chen-Garson	Santa Clarita	CA
Ruth	Cherico	Santa Monica	CA
Tom	Chester	Fallbrook	CA
Animae	Chi	Beverly Hills	CA
Antonia	Chianis	Blue Jay	CA
Benny	Chien	La Jolla	CA
Robert	Chirpin	Northridge	CA
Emilia	Chiuzzi	Los Angeles	CA
Mlou	Christ	Santa Ana	CA
Gail	Christensen	Burbank	CA
Karen	Christensen	Laguna Niguel	CA
Sandra	Christopher	Burbank	CA
Barbara	Chudilowsky	Pacific Grove	CA
Eva	Cicoria	Rancho Palos Verdes	CA
John	Clapper	Rancho Cucamonga	CA
Frances	Clark	Needles	CA
Rebecca	Clark	West Hills	CA
Lucy	Clark	Bakersfield	CA
Matthew	Clark	Tarzana	CA
Jeffrey	Clark	Rancho Santa Margarita	CA
W.	Clark	Lynchburg	VA
Audrey	Clark	Carlsbad	CA
Cher	Clarke	Beverly Hills	CA
Brady	Clay	Escondido	CA
Curt	Clay	San Diego	CA
Robert	Clay	San Diego	CA
Michael	Clayton	Los Angeles	CA
Regina	Clemente	Los Angeles	CA
Jim	Clough	Glendale	CA
H.	Coetzee	La Canada Flintridge	CA
Jonathan	Coffin	Inglewood	CA
Bea	Cohen	Desert Hot Springs	CA
Joanne	Cohen	San Diego	CA
Myrna	Cohen	Laguna Beach	CA
Roslyn	Cohn	Van Nuys	CA
Bradley	Colden	Whittier	CA
Flynn	Coleman	Los Angeles	CA
James	Collier	Burbank	CA
Geoffrey	Collins	Garden Grove	CA
Deborah	Collodel	Malibu	CA
Stephanie	Colshan	Santa Ana	CA
Joan	Combes	Huntington Beach	CA
Barbara	Combs	San Diego	CA
Martin	Comerford	Thousand Oaks	CA
Carmen	Compagno	Seaside	CA
JANINE	COMRACK	Ojai	CA
Julia	Conklin	Pasadena	CA
Suzanne J	Conlon	San Diego	CA
Jean O	Connell	Santa Barbara	CA
Thomas	Conroy	Manhattan Beach	CA
Susan	Considine	Los Angeles	CA
Steven	Cook	Big Bear Lake	CA
Gordon	Cook	Bakersfield	CA
Anita	Coolidge	Cardiff By The Sea	CA
Sandra	Cope	Irvine	CA
Roberta	Cordero	Santa Barbara	CA
Jeff	Cordes	Squaw Valley	CA
Stacy	Cornelius	Laguna Beach	CA
Hana	Correa	La Quinta	CA
Jennifer	Corrigan	Newbury Park	CA
Sean	Corrigan	Bellflower	CA
Ronit	Corry	Santa Barbara	CA
M. C.	Corvalan	Redondo Beach	CA
Diana	Cosand	Rancho Cucamonga	CA
Renee	Cossutta	Sierra Madre	CA
Suzanne	Costello	Santa Barbara	CA
Donna	Cottrell	Long Beach	CA
Marc	Couacaud	San Luis Obispo	CA
Penny	Coulthard	Bakersfield	CA
David	Councilman	Minneapolis	MN
Cathy	Cousins	North Hollywood	CA
Richard	Cox	Venice	CA
Stacie	Cox	Santa Monica	CA
Nora	Coyle	Anaheim	CA
Laura	Craun	Bakersfield	CA
Katherine	Crawford	Los Osos	CA
Holly	Crawford	Orange	CA
Phillip	Cripps	Cathedral City	CA
Kurt	Cruger	Long Beach	CA
Tina da	Cruz		HP14
Bernadette	Cuellar		11200
Susan	Cullen	Anaheim	CA
Lauren	Cummins	Placentia	CA
Sherrell	Cuneo	Los Angeles	CA
Alan	Cunningham	Carmel Valley	CA
Bob	Cunningham	Santa Barbara	CA
Grace	Cunningham	Camarillo	CA
Debra	Cunningham	Carlsbad	CA
Heather	Curle	Lake Elsinore	CA
Clyde	Curtis	Los Angeles	CA
Robert	Curtis	Ventura	CA
Michael	Curtis	San Diego	CA
Joe	Cuviello	Solana Beach	CA
Romona	Czichos	Hollister	CA
Donna	Daane	San Diego	CA
Joseph	Dadgari	Los Angeles	CA
Casey	Dake	Thousand Oaks	CA
Laurie	Dalke	Laguna Beach	CA
Amanda	Dalonzo	South Gate	CA
Rhea	Damon	Calabasas	CA
William	Dane	Rancho Cucamonga	CA
Erin	Daniels	Carson	CA

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Eileen	Daniels	Canyon Country	CA	Barbara	Dincau	Ventura	CA
Avron	Daniller	Tarzana	CA	Kandace	Dingle	Taft	CA
Mac	Danzig	Los Angeles	CA	Mary	Dixon	Watsonville	CA
Jessica	Dardarian	Winnetka	CA	Joanne	Doherty	Simi Valley	CA
Michael	Darling	Frazier Park	CA	Ronna	Dolin	Studio City	CA
Lisa	Darner	San Diego	CA	Cody	Dolnick	Joshua Tree	CA
Aimee	Darrow	Venice	CA	Bonnie	Dombrowski	Pasadena	CA
Eka	Darville	Los Angeles	CA	Sharon	Domenigoni	Hemet	CA
Jeanne	Davenport	Long Beach	CA	Jennifer	Donaldson	Glendale	CA
Rita	Davenport	Lake Elsinore	CA	Audrey	Doocy	Pacific Grove	CA
Bob	Davey	Laguna Beach	CA	Michelle	Dorado	Brea	CA
Elizabeth	Davidson	Calimesa	CA	Dawna	Dorcas-Werner	Fontana	CA
Judith	Davies	Santa Monica	CA	Rob	Doucette	Playa Del Rey	CA
Carol	Davis	Los Angeles	CA	Paulette	Doulatshahi	Los Angeles	CA
Adrianne	Davis	Los Angeles	CA	Deanna	Doull	Riverside	CA
Madeline	Davis	Claremont	CA	Rick	Dow	Camarillo	CA
Patti	Davis	Santa Monica	CA	Steve	Downing	Santa Barbara	CA
Timothy	Davis	Garden Grove	CA	Wena	Dows	Culver City	CA
Jonathan	Day	Laguna Beach	CA	Mia	Dravis	Rancho Cucamonga	CA
Andres	Daza	San Pedro	CA	Tim	Dressel	San Diego	CA
Stephanie	De Los Rios	Del Mar	CA	Nancy	Dubuc	Pasadena	CA
Rayline	Dean	Ridgecrest	CA	Robert	Duckson	Hemet	CA
Lynnedeaton	Deaton	Upland	CA	Anne	Dugaw	Costa Mesa	CA
Therese	DeBing	Pacific Grove	CA	Steve	Duggan	Littlerock	CA
Katherine	Dekker	Castroville	CA	Alexander	Dunaev	Sherman Oaks	CA
Cheryl	Delvecchio	Paso Robles	CA	Terre	Dunivant	San Luis Obispo	CA
Towa	Demorst	Perris	CA	Terre	Dunivant	San Luis Obispo	CA
Angela	Dench	Glendale	CA	Julianne	Dunkley	Cambria	CA
Andrew	Deniger	Castroville	CA	Kelly	Dunn	Aliso Viejo	CA
Jack and Margarita	Denman	Fullerton	CA	Dayna	Dunne	Los Angeles	CA
Brett	Dennison	Garden Grove	CA	Nic	Duon	Santa Ana	CA
Carolyn	Dennison	Garden Grove	CA	Sarah	Dupree	Carlsbad	CA
Sean	Denny	Santa Barbara	CA	Donna	Duran	Northridge	CA
Sherry	Denton-Noonan	San Pedro	CA	Eve	Duran	Lemon Grove	CA
Wendy	Derbort	Redlands	CA	kira	durbin	Van Nuys	CA
Lauren	Derby	Santa Monica	CA	John	Dutton	Santa Barbara	CA
Richard	Desantis	Palm Desert	CA	Laura	Dutton	Los Angeles	CA
Antonio	Dettori	San Diego	CA	Jackie	Duval	Laguna Hills	CA
Vivian	Deutsch	Calabasas	CA	Douglas	Dyakon	West Hollywood	CA
Karla	Devine	Manhattan Beach	CA	Tonya	Dysart	San Diego	CA
Scott	Devries	San Pedro	CA	Bonnie	Earls-Solari	Port Hueneme	CA
Dolores	DeVries	Vista	CA	Jerry	Eckel	Granada Hills	CA
Charles	Deweese	Monterey	CA	Janet	Eckholm	Los Angeles	CA
Mary Ann	Di Flaviano	Clovis	CA	Elaine	Edell	Thousand Oaks	CA
Leigh Ann	DiCarlo	Winchester	CA	Elizabeth	Edinger	North Hollywood	CA
Lori	Dick	Claremont	CA	Teresa	Edmonds	Carmel Valley	CA
Claudia	Dikinis	Santa Monica	CA	Lorrie	Edmonson	South Pasadena	CA
Tamara	Dilley	Lake Elsinore	CA	Jane	Edwards	La Palma	CA
Patrick	Dillon	Van Nuys	CA	Carole	Ehrhardt	Pebble Beach	CA
Sheila	Dillon	Willmar	MN	Frank	Eichenberg	South Lake Tahoe	CA
Richard	DiMatteo	San Diego	CA	J	Eiser	Long Beach	CA
				Gregg	Eisman	Valley Center	CA

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Anaunda	Elijah	San Luis Obispo	CA	Kim	Ferlazzo	Northridge	CA
Michael	Elkins	Oceanside	CA	Aixa	Fielder	Los Angeles	CA
Virginia	Ellenson	Huntington Beach	CA	Demarcus	Fierro	Los Angeles	CA
Norm	Ellis	Laguna Hills	CA	Daphne	Figueroa	San Diego	CA
Bonnie	Elsten	Long Beach	CA	Donald	Fischer	Running Springs	CA
Maria	Emmetti	Manhattan Beach	CA	Juels	Fisher	Chino Hills	CA
Scott	Emsley	Carmel	CA	Melanie	Fisher	Calabasas	CA
Jane	Engelman	San Diego	CA	Stephen	Fitch Ph.D.	Thousand Oaks	CA
Richard	Engle	Winnetka	CA	Lissette	Fitter	San Pedro	CA
William	Engs	Highland	CA	Doug	Flack	New York	NY
Mary	Eninger	Torrance	CA	Dylan	Flather	Long Beach	CA
Walter	Erhorn	Spring Valley	CA	Daniel	Fleischman	Torrance	CA
Eric	Ericson	Pacific Palisades	CA	Tina	Florell		10000
Mack	Errea	Laguna Niguel	CA	Brian	Florian	Beverly Hills	CA
Kelle	Erwin	Long Beach	CA	Kim	Floyd	Palm Desert	CA
Vanessa	Escamilla	Los Angeles	CA	Sara	Fogan	Valencia	CA
Lucy	Escobar	Colton	CA	Joanna	Fong	Rosemead	CA
Karen	Espanol	Culver City	CA	Sibyl	Forsberg	West Hollywood	CA
Linda Aurora	Espino	San Diego	CA	Aimie	Foster	Salinas	CA
Dan	Esposito	Manhattan Beach	CA	Linda	Foster-Brooks	La Palma	CA
Nicholas	Esser	Simi Valley	CA	Ashley	Foulk	Long Beach	CA
Michael	Esten	San Diego	CA	Kathleen	Fox	Grover Beach	CA
Ruth	Estrada	National City	CA	Anne	Fragasso	Encinitas	CA
Albert	Eurs	Cypress	CA	Caroline	Fraissinet	Los Angeles	CA
Michael	Evans	Altadena	CA	Barbara	Frances	Aromas	CA
Ramona	Evans	Long Beach	CA	Suzanne	Francis	Van Nuys	CA
Susan	Evans	Sherman Oaks	CA	Rodrigo	Franco	San Diego	CA
Nancy	Everett	San Diego	CA	Karla	Frandson	San Diego	CA
Kai	Ewert	Oak View	CA	Peter	Frank	Santa Monica	CA
John	Faber	Ontario	CA	Laurie	Franklin	North Hills	CA
D.	Fachko	Buena Park	CA	Amy	Franz	La Habra	CA
Eric	Faibish	San Diego	CA	Antoinette	Franz	Huntington Beach	CA
Judith	Falck-Madsen	Carpinteria	CA	Angela	Freberg	San Luis Obispo	CA
Roberta	Falke	Los Angeles	CA	Nancy	Freedland	Big Bear City	CA
Susan	Falkenbach	Torrance	CA	Clint	Freeland	Santa Maria	CA
Erin	Farber	Valley Village	CA	Lionel	Friedberg	Woodland Hills	CA
Fran	Farina	Carmel	CA	Sarah	Friedenberg	San Diego	CA
Gail	Farina	Los Angeles	CA	Bernard	Friedrich	Westlake Village	CA
Quinn	Farrand	Pinedale	WY	Rochelle La	Frinere	San Diego	CA
Fran	Farrell	Moreno Valley	CA	Carissa	Fritts	Pacific Grove	CA
Darius	Fattahipour	San Diego	CA	Jeff	Fromberg	Los Angeles	CA
Regina	Favarote	Pasadena	CA	Amanda	Frost	Santa Barbara	CA
Deborah	Favila	Kerman	CA	Earl	Frounfelter	Santa Maria	CA
Elissa	Faye	North Hollywood	CA	Julie	Frumkin	Bishop	CA
Joy	Fedele	Ojai	CA	Joyce	Frye	La Quinta	CA
Marla	Feierabend	Santa Barbara	CA	Luis	Fuentes	Palm Springs	CA
Dana	Feldman	Marina Del Rey	CA	Jed	Fuhrman	Topanga	CA
Drew	Feldmann	San Bernardino	CA	Kristina	Fukuda	Los Angeles	CA
Grace	Feldmann	Santa Barbara	CA	Judy	Fukunaga	Arroyo Grande	CA
Paul	Felice	Long Beach	CA	C	G	San Diego	CA
Ashley	Felix	Riverside	CA	J	G	La Mesa	CA
Virginia	Ferguson	San Diego	CA	Tamara	G	Carlsbad	CA

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W.	G.	Glendale	CA
Marnie	Gaede	La Canada Flintridge	CA
Gary	Gall	Cambria	CA
Lourdes	Gallegos	Hemet	CA
Juanita	Gama	Palm Desert	CA
Greg	Garavani	Fresno	CA
Marcia	Garceau	San Diego	CA
Erin	Garcia	Tarzana	CA
Bas	Garcia	Altadena	CA
Evette	Garcia	Hawaiian Gardens	CA
John	Garcia	Carlsbad	CA
Isabel	Garcia	Long Beach	CA
Wayne	Garcia	San Diego	CA
Sam	Garcia	Culver City	CA
Olivia	Garcia	Long Beach	CA
Steven	Garcia	Los Angeles	CA
Angela	Gardner	Whittier	CA
Jan	Garen		12345
Gary	Gargantos	Long Beach	CA
Aida	Garralda	Rancho Santa Margarita	CA
Lisa	Garvey	Venice	CA
Kris	Gata	Redondo Beach	CA
Genevieve	Gates	Culver City	CA
Remi	Gauchet	Lake Forest	CA
Angelica Danielle	Gavino	Bakersfield	CA
Cecile	Geary	Laguna Niguel	CA
Terri	Gedo	Los Angeles	CA
elaine	genasci	San Luis Obispo	CA
Jeremiah	George	Manhattan Beach	CA
Mark	Geraghty	Santa Monica	CA
Janice	Gero	Glendale	CA
Dani	Gerz	Marina Del Rey	CA
Sandra	Geyer	Fallbrook	CA
Janine	Giaime	Valley Village	CA
Christina	Gibson	San Diego	CA
Ron	Giddings	Los Osos	CA
Camille	Gilbert	Santa Barbara	CA
Tracy	Gilbert	Rialto	CA
Anthony	Gilchriest	Los Angeles	CA
Amber	Gill	Fullerton	CA
Thomas	Gillespie	La Mirada	CA
Cheryl	Gillette	Carmel	CA
Ken	Gilliland	Tujunga	CA
Matt	Gilsdorf	Escondido	CA
Anthony	Giordano	Ventura	CA
Perri	Glass	Los Angeles	CA
Joe	Glaston	Desert Hot Springs	CA
Sandra	Gleason	Hemet	CA
Paula	Glez	Van Nuys	CA
Amanda	Goad	Los Angeles	CA
Gary	Goetz	Pacific Grove	CA
Frances	Goff	Pasadena	CA
Ruth	Gold	San Diego	CA
Susan	Goldberg	Glendale	CA
g	goldfarb	Malibu	CA
Celia	Goldman	Los Angeles	CA
Jill	Goldman	Toluca Lake	CA
Kathleen	Gonnoud	Los Angeles	CA
Daniel	Gonzales	Lancaster	CA
Tara	Gonzales	Atascadero	CA
Bernie	Gonzales	Caruthers	CA
Aida	Gonzalez	Costa Mesa	CA
Charysma	Gonzalez	Sierra Madre	CA
Yazmin	Gonzalez	Bellflower	CA
Cecilia	Gonzalez	Los Angeles	CA
Beth	Goode	Topanga	CA
Veronica	Goode	Porter Ranch	CA
Sarah	Gooderham	Los Angeles	CA
Luna	Gooding	Los Angeles	CA
Janet	Goodwin	Los Angeles	CA
Susan	Goran	Tarzana	CA
Gail	Gordon	Westminster	CA
Kathleen	Gordon	Vista	CA
Stanley	Gordon	Canoga Park	CA
Carol	Gordon	Los Angeles	CA
Dara	Gorelick	Van Nuys	CA
Laurie	Gorman	Visalia	CA
Lois	Gorrell	Santa Ana	CA
Dan	Gotch	Pacific Grove	CA
Nancy	Gowani	Woodland Hills	CA
Kay	Graetz	Huntington Beach	CA
Barbara	Graham	San Diego	CA
Susan	Graham	Glendale	CA
Kyra	Graham	Costa Mesa	CA
Elizabeth	Grainger	Claremont	CA
Donna	Grampp	Fullerton	CA
Fred	Granlund	North Hollywood	CA
Susan	Grant	Los Angeles	CA
Marc	Grawunder		49492
Lisa	Gray	Anaheim	CA
Sara	Graybill	New Providence	PA
Bronwen	Grebe	Castaic	CA
Jamie	Green	Ventura	CA
Stuart	Greenburg	Stevenson Ranch	CA
Anne	Greene	Carmel	CA
Bill	Greene	Pismo Beach	CA
Evelyn	Greenwald	San Luis Obispo	CA
Marie	Grenu		61100
Don	Grierson	Los Angeles	CA
Melody	Grigg	Santa Maria	CA
David	Griggs	Carpinteria	CA
Malcolm	Groome	Topanga	CA

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William	Grosh	El Centro	CA	Laurie L	Hatch	Lone Pine	CA
Ellen	Grossman	Chicago	IL	Patty	Hatcher	Buena Park	CA
Tanya	Guchi	Sherman Oaks	CA	Artineh	Havan	Burbank	CA
Mike	Guerreiro	Carlsbad	CA	Gary	Haven	Agoura Hills	CA
Paul	Gullam	Bakersfield	CA	Paula	Hawkins	San Diego	CA
Ellen	Gutfleisch	Sussex	WI	Shereen	Hawkins	Huntington Beach	CA
Perry	Gx	Tustin	CA	Suzanne	Hayano	Santa Barbara	CA
Reem	H	La Verne	CA	Sara	Hayes	Long Beach	CA
Eleonora	Haas	Hawthorne	CA	Christine	Hayes	Upland	CA
Alan	Haas		N1R	Felecia	Hays	Carlsbad	CA
Marcia C.	Hackett	Laguna Woods	CA	Julie	Hazard	Burbank	CA
Nadia	Haddad	Monterey Park	CA	Yuriko	Hazlett	Oxnard	CA
Ellen	Haden	Pacific Palisades	CA	Kathleen	Head	Murrieta	CA
Brenda	Haig	Long Beach	CA	Kris	Head	Garden Grove	CA
Barbara	Haire	Mira Loma	CA	Paulette	Heath	Los Angeles	CA
Teni	Hakopian	Glendale	CA	Nancy	Heck	Santa Maria	CA
Madison	Hales	Riverside	CA	Ken	Hedges	Lemon Grove	CA
Chris	Hall	Los Angeles	CA	Christine	Hein	Huntington Beach	CA
Holly	Hall	Temecula	CA	Janet	Heinle	Santa Monica	CA
Stacy	Hall	San Diego	CA	Bridgett	Heinly	San Diego	CA
Maryann	Haller	Escondido	CA	Susan	Heisler	Patton	CA
Cathy	Halley	Oak View	CA	Ciara	Helland	San Luis Obispo	CA
Ellen A	Hamilton	Goleta	CA	Bonnie	Hemauer	Santa Monica	CA
Frederick	Hamilton	Rancho Cucamonga	CA	Carol	Hemingway	Santa Barbara	CA
Denise	Hamilton	Altadena	CA	Marilyn	Hempel	Yucaipa	CA
Khai	Hang	Baldwin Park	CA	Michael	Henderson	Huntington Beach	CA
Susan	Hanger	Topanga	CA	Kelly	Hendricks	Temecula	CA
Steve	Hanlon	Los Angeles	CA	Grace	Hengst	Los Angeles	CA
Caren	Hanson	Sun City	CA	Bryan	Hennes	Simi Valley	CA
Constance	Hanson	South Pasadena	CA	Matthew	Hennes	San Jose	CA
Kathryn	Hanson	Huntington Beach	CA	Debbie	Hennessey	Culver City	CA
Nalani	Ha'o	Long Beach	CA	Kevin	Henry	Carmel	CA
Joseph	Hardin	Santa Monica	CA	Kathlene	Henry-Gorman	Cambria	CA
Jana	Harker	Arcadia	CA	Christina	Heon	Arroyo Grande	CA
Karlen	Harmison	San Clemente	CA	Ian	Heptinstall	Huntington Beach	CA
Lori	Harmon	Van Nuys	CA	Teri	Herbst	Torrance	CA
Kate	Harper	Irvine	CA	Amber	Heredia	Ladera Ranch	CA
Barbara	Harper	Castroville	CA	Micki	Hergenreder	Trabuco Canyon	CA
Beverly	Harris	Beverly Hills	CA	Nicholas	Hermosillo	Highland	CA
Dwain	Harris	Westminster	CA	Crystal	Hernandez	Cypress	CA
Freya	Harris	Atlanta	GA	Chris	Hernandez	Sun Valley	CA
Jennie	Harris	Los Angeles	CA	Thomas	Hernandez	Corona	CA
Lois	Harris	Claremont	CA	Paula	Hernandez	Long Beach	CA
William	Harris	Los Angeles	CA	Joan	Hernandez	Lemon Grove	CA
Mary Elise	Harris	Fallbrook	CA	Steven	Hernandez	Long Beach	CA
Dorothea	Hartley	Oak View	CA	Teddi	Hernandez	Hanford	CA
Lauri	Hartman	Camarillo	CA	Marisa	Herrera	Chula Vista	CA
Randall	Hartman	San Clemente	CA	Magge	Herrera	Valley Center	CA
Gayle	Harvey	Morro Bay	CA	Sandra	Herrera	Parlier	CA
Anne	Harvey	San Diego	CA	Tasya	Herskovits	Joshua Tree	CA
Bill	Haskins	Sacramento	CA	Jennifer	Herstein	Altadena	CA
Karen	Hastings	Santa Barbara	CA	Brian	Herzog	Altadena	CA

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Diane	Hesford	Fresno	CA	Robert	Husbands	San Diego	CA
Rilla	Heslin	La Mesa	CA	Steven	Huskey	Los Angeles	CA
William	Heuser	Arcadia	CA	Judi	Hutchinson	Malibu	CA
William	Hewes	Simi Valley	CA	Stephen	Hutchinson	Glendale	CA
John	Hewett	Playa Del Rey	CA	Graciela	Huth	Los Angeles	CA
Carol	Hewitt	Signal Hill	CA	Theresa	Hvassman	Monterey	CA
Percy	Hicks-Severn	Newbury Park	CA	Barbara	Ige	Los Angeles	CA
Richard	Hieber		87700	Maryan	Infield	Los Angeles	CA
Karen	Higgins	Arcadia	CA	LouAnne	Insprucker	La Canada Flintridge	CA
Susi	Higgins	Glendale	CA	Lynne	Irvine	Pacific Palisades	CA
Eleanor	High	Ventura	CA	Freyda	Isaacs		M2M
Andrea	Hilario	La Puente	CA	Jodi	Isaacs	San Luis Obispo	CA
Deborah	Hill	Los Angeles	CA	Elizabeth	Jache	Lemon Grove	CA
Sue	Hill	Valley Center	CA	Maryanne	Jackson	El Cajon	CA
Tangerine	Hill	Lomita	CA	Suzanne	Jacobs	Woodland Hills	CA
Brien	Hindman	Montrose	CA	Lisa	Jaime	Los Angeles	CA
Stephanie	Hines	Dana Point	CA	Kathy	Jakary	Laguna Niguel	CA
Eugene	Hinton	Porterville	CA	Kim	James	Lake Arrowhead	CA
Glenn	Hiramatsu	Santa Maria	CA	Jennifer-Lynn	Jankesh	Santa Monica	CA
Lynn	Hoang	Fullerton	CA	Cynthia	Jansen	Orange	CA
Eva	Hofberg	Anaheim	CA	Audrey	Jansen	Redlands	CA
Colleen	Hoff	Bayfield	CO	Susan Alcott	Jardine	Sherman Oaks	CA
Florence	Hoffert	El Segundo	CA	Bert	Jarnagin	Lone Pine	CA
Maren	Hoflund	Vista	CA	C.K. Nuetzie	Jasiorkowski	Goleta	CA
Michael	Hogan	Del Mar	CA	Lisa	Jasso	Beaumont	CA
Lisa	Hoivik	Monterey	CA	Julien	Jegou	Irvine	CA
Elaine	Holder	San Luis Obispo	CA	Laurie	Jensen	La Jolla	CA
roger	hollander	Tarzana	CA	Sisse	Jensen	Beverly Hills	CA
Paula	Hollie	Laguna Woods	CA	Lee	Jesmain	Twentynine Palms	CA
Corinne	Hollings	Bonita	CA	Darynne	Jessler	Valley Village	CA
Chris Van	Hook	Pacific Palisades	CA	S	Jitreun	Ann Arbor	MI
Melissa	Hoover	San Bernardino	CA	Ann	Johnson	Yorba Linda	CA
Kathy	Hopkins	San Bernardino	CA	Beverly	Johnson	Hesperia	CA
Laura	Horning	Westlake	OH	Chad	Johnson	Los Angeles	CA
Carolyn	Horowitz	West Covina	CA	Erica	Johnson	Gardena	CA
Cleda	Houmes	Salinas	CA	Jane	Johnson	Los Osos	CA
Roseanne	Hovey	San Diego	CA	Matthew	Johnson	Anaheim	CA
Susan	Howe	Oceano	CA	Katherine	Johnson	Santa Barbara	CA
Linda	Howie	Valencia	CA	Christine	Johnson	Indio	CA
Katherine	Hoyt	Chula Vista	CA	Mara	Johnson	Santa Clarita	CA
george	hrouda	Moreno Valley	CA	Reid	Johnson	Los Angeles	CA
Bess	Hsieh	San Diego	CA	Robert	Johnson	El Segundo	CA
Gail	Hubbs	Newbury Park	CA	Shawn	Johnson	Encinitas	CA
Vicki	Hughes	Huntington Beach	CA	Evelyn	Johnson-Todd	Fresno	CA
Tamara	Hulsey	El Cajon	CA	Jessica	Johnston	Los Angeles	CA
Erica	Hummel	Huntington Beach	CA	Michael A.	Johnston	San Diego	CA
Paul	Hunrichs	Santee	CA	Amelia	Jones	Santa Monica	CA
Peggy	Hunsaker	San Marcos	CA	Roslyn	Jones	Riverside	CA
Linda	Hunt	Pasadena	CA	Gary	Jones	San Marino	CA
Star	Hunt	Goleta	CA	Jeffrey	Jones	Sherman Oaks	CA
Catherine	Hunter	La Crescenta	CA	Martha	Jones	Santa Clarita	CA
Laura	Hunter	Escondido	CA	S	Jones	Costa Mesa	CA

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Stanleigh	Jones	Claremont	CA	Brian	Kessler	Sherman Oaks	CA
Truman	Jones	Big Sur	CA	Ted	Key	Cambria	CA
Laura	Jones-Bedel	San Diego	CA	Ruth	Keyser	Ramona	CA
Cea	Jordan	Los Angeles	CA	Mha Atma S	Khalsa	Los Angeles	CA
John	Jordan	Fresno	CA	Simran	Khalsa	Los Angeles	CA
Alena	Jorgensen	Temple City	CA	Maryann	Khan	Oceanside	CA
Anna	Jozefowicz	Santa Ana	CA	Sareepark	Khumurai	Los Angeles	CA
Scott	Jung	South Pasadena	CA	Mary Ann	Kiger	Anza	CA
Philip	Jupp	Little Falls	NY	Jim	Kilby	Escondido	CA
Stacy	K	Bakersfield	CA	Catherine	Kimbrough	Mission Viejo	CA
Rose	Kabir	Mira Loma	CA	Perri	Kimono	Los Angeles	CA
Vinay	Kadambi	Santa Ana	CA	Janis	King	Reno	NV
Holly Ann	Kaiakapu	Seaside	CA	Nancy	Kingston	Mission Viejo	CA
Sarah	Kalinay	Bakersfield	CA	Brian	Kirk	Orange	CA
Cindy	Kamler	Bishop	CA	Sue	Kirk	San Diego	CA
Celine	Kan	Diamond Bar	CA	Tracey	Kirsten	El Segundo	CA
Lindsay	Kanani	Costa Mesa	CA	Zoltan	Kiss	Tarzana	CA
Cat	Kane	San Juan Capistrano	CA	Jo Ann	Kiva	Pasadena	CA
Philip	Kane	Norco	CA	Larry	Klaasen	San Diego	CA
Rose	Kanno	Los Angeles	CA	Joel	Klayman	Huntington Beach	CA
Fredrica	Kanter	Riverside	CA	Daryl	Klein	San Clemente	CA
Steven	Kapchinske	San Diego	CA	Joanne	Klein	Bakersfield	CA
Alexa	Kaplan	San Diego	CA	Linda	Klein	El Segundo	CA
Chono	Kapono	Santa Monica	CA	Leslie	Klein	Los Angeles	CA
Ann-Kristin	Karling	Van Nuys	CA	Shirley	Klein	San Diego	CA
Raquel	Karno	Pala	CA	Diana	Kliche	Long Beach	CA
Chuck	Karp	Palm Desert	CA	George F.	Klipfel II	Cathedral City	CA
Sandy	Kasper	Hemet	CA	Harry	Knapp	Riverside	CA
Lise	Kastigar	Laguna Niguel	CA	Brianna	Knickerbocker	Reseda	CA
Eli	Kat	Rialto	CA	Brooke	Knight	Ventura	CA
Gary	Katona	Los Osos	CA	Tony	Knight	Studio City	CA
Pucznik	Katz	Los Angeles	CA	Pamela	Knoll	Los Angeles	CA
Sara	Katz	Manhattan Beach	CA	Cybele	Knowles	Tucson	AZ
Kathryn	Kawecki	Rancho Cucamonga	CA	Mayumi	Knox	San Marino	CA
Josh	Kaye-Carr	Ventura	CA	Anne	Kobayashi	San Diego	CA
Lori	Kegler	San Pedro	CA	Francisco	Koch	North Hills	CA
Jaemi	Kehoe	Norwalk	CA	Patti	Koger	Cardiff By The Sea	CA
Rachel	Kelley	Santa Monica	CA	Joyce	Kolasa	Springville	CA
Bev	Kelly	Long Beach	CA	Robert	Kolesnik	Upland	CA
Leslie	Kelly	Chula Vista	CA	Raleigh Koritz	Koritz	Minneapolis	MN
Joanna	Kelly	Studio City	CA	Kathy	Kosinski	Goleta	CA
Teri	Kelly	San Marcos	CA	Linda	Kourtis	San Diego	CA
Lisa Ann	Kelly Family	Santa Barbara	CA	Yvonne	Kouza	Bonita	CA
Jennifer	Kelsey	Los Angeles	CA	Betty	Kowall	Penngrove	CA
Angelika	Kempter		72770	Joshua	Krasnoff	Oak View	CA
Eden	Kennan	Van Nuys	CA	Cathy	Kraus	North Hollywood	CA
Joyce Lain	Kennedy	Encinitas	CA	Annica	Kreuter	Joshua Tree	CA
Kate	Kenner	Brattleboro	VT	Ulrich	Krieger	Acton	CA
Jean	Kennerson	Yucaipa	CA	Kathleen	Kuczynski	Lake Forest	CA
John	Kerby	Fontana	CA	Peter	Kuhn	San Diego	CA
Madeleine Fisher	Kern	Los Angeles	CA	Rosemarie	Kuhn	Fresno	CA
				Julie	Kummel	Santa Barbara	CA

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Giar-Ann	Kung	Alhambra	CA	Clara	Levy	Los Angeles	CA
Jamie	Kurnik	San Clemente	CA	Ellen	Levy	Altadena	CA
Celia	Kutcher	Capistrano Beach	CA	Cynthia	Lewis	Templeton	CA
Delfin	Labao	San Diego	CA	O	Lewis	Los Angeles	CA
Georgia	Labey	Indio	CA	Polly	Lewis	Frazier Park	CA
Ligia	Laffitte	Pismo Beach	CA	Susanna	Liberty	Pasadena	CA
Carly	Lake	Costa Mesa	CA	Debra	Lichstein	Agoura Hills	CA
Caitlin	Lamb	Studio City	CA	Suzanne	Licht	San Pedro	CA
Jerome	Lambert	La Jolla	CA	Kortney	Lillestrand	Laguna Beach	CA
Robin	Lande	Los Angeles	CA	Susan	Lilly	Berkeley	CA
Dennis	Landi	Long Beach	CA	Susan	Lindberg	San Diego	CA
Sarah	Lane	Pebble Beach	CA	Emily	Lindsey	Los Angeles	CA
Kathryn	Lanning	Visalia	CA	Ruth	Litton	South Yarmouth	MA
Gavin	Lantry	Escondido	CA	Elaine	Livesey-Fassel	Los Angeles	CA
Paul	Lapidus	Aromas	CA	Debbie	Llewellyn	San Diego	CA
Kenneth	Lapointe	Los Angeles	CA	Colleen	Lobel	San Diego	CA
Venetia	Large	Altadena	CA	Robert	Loebl	Coronado	CA
Nicole	Larson	San Diego	CA	Frances	Logan	San Diego	CA
Bethany	Lasala	San Diego	CA	Wendy	Lohman	Los Angeles	CA
Clincy	Latimer	Los Angeles	CA	Larisa	Long	Woodstock	IL
Kristin	Laughtin-Dunker	Santa Ana	CA	Mary Lou	Long	Studio City	CA
Janet	Laur	Chatsworth	CA	Ernie	Looney	Santa Clarita	CA
Aaron	Lavine	Los Angeles	CA	Irene	Lopez	San Diego	CA
Timothy	Lawnicki	Long Beach	CA	Andrea	Lopez	Fallbrook	CA
Marisa	Lawson	Yorba Linda	CA	Stacey	Lopez	Yucaipa	CA
Andrea	Lazar	Sherman Oaks	CA	Iliana	Lopez	Glendora	CA
Yolanda	Leaird	Los Angeles	CA	Juan	Lora	Los Angeles	CA
Jan	Leath	Glendale	CA	Judith	Lotz	Burbank	CA
chuck	leavell	Anaheim	CA	Patty	Lotz	Santa Monica	CA
Timothy	Ledford	Fresno	CA	Lawrence	Lovell	South Pasadena	CA
Barbara	Lee	Orange	CA	Patricia	Loverme	South Pasadena	CA
Richard	Lee	Salinas	CA	Jacklyn	Lowe	San Diego	CA
Sheryl	Lee	Topanga	CA	Margot	Lowe	Oceanside	CA
Susie	Lee	La Habra	CA	Donita	Lowrey	Paris	TX
Claudia	Lee	Pasadena	CA	Bettina	Luboff	Los Angeles	CA
Dennis	Lees	Encinitas	CA	John	Lucas	Los Osos	CA
Teresa	Lees	Cambria	CA	Rosa	Lucas	Palm Desert	CA
Sierra	Leffers	Costa Mesa	CA	Marsha	Lucero	Nipomo	CA
Jonathan	Lehrer-Graiwer	Los Angeles	CA	George	Ludwig	Oceanside	CA
Mindy	Leighton-Toth	Los Angeles	CA	Don	Lukenbill	Sherman Oaks	CA
Anne	Lemay	Los Angeles	CA	Rose	Luna	Huntington Beach	CA
Amy	Lentine	Buena Park	CA	Kimberly	Lundy	Thousand Oaks	CA
C	Leonard	San Bernardino	CA	Andy	Lupenko	Lemon Grove	CA
Cody	LePow	Ojai	CA	Judith	Luscalzo	Long Beach	CA
Bob	Leppo	Pismo Beach	CA	Jennifer	Lutje	Spring Valley	CA
Jim	Leske	North Hollywood	CA	Robyn	Lutsky	Tarzana	CA
Michelle	Lesmond		2000	Andrea	Lux	Fullerton	CA
Tamara	Lesser	Agoura Hills	CA	Dennis	Lyday	Los Angeles	CA
Rob	Leverson	Castaic	CA	Heidi	Lynn	Spring Valley	CA
Aaron	Levine	San Diego	CA	Barbara	Lyon	Goleta	CA
Judy	Levitt	Los Angeles	CA	C	M	Arcadia	CA
Lacey	Levitt	San Diego	CA	Jessie	MacLeod	Ventura	CA

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Cecilia	Macy	Long Beach	CA	Lisa	Mazzola	Tampa	FL
Candris	Madison	Los Angeles	CA	Kevin W.	McAlister	Bellmore	NY
Mike	Madrigal	Santa Clarita	CA	Mary	McAuliffe	Los Angeles	CA
Mary Ann	Mahaffie	Torrance	CA	Sheryl	McCabe	Long Beach	CA
David	Maher	Los Angeles	CA	Ellen	McCann	Escondido	CA
David	Maillet	Van Nuys	CA	Wendy	McCarthy	Santa Ana	CA
Dineo	Maine	Chula Vista	CA	Patricia	McCauley	Anaheim	CA
Eugene	Majerowicz	Los Angeles	CA	Karen	McCaw	Los Angeles	CA
Janet	Maker	Los Angeles	CA	Roger And Judy	McClure	Canyon Country	CA
Veronica	Maldonado	Los Angeles	CA	Dorothy	McCollom	Huntington Beach	CA
Ariana	Malik	Playa Del Rey	CA	Debbie	McCormick	Tustin	CA
Arlene	Malkin	Beaumont	CA	Douglas	McCormick	Trabuco Canyon	CA
Sonja	Malmuth	Santa Ynez	CA	Dan	McCoy	Carlsbad	CA
Rose	Maly	Los Angeles	CA	Maria	McCutchan	La Jolla	CA
Patrick	Manalio	Westlake Village	CA	Haley	McDonald	North Hollywood	CA
Lisa	Mandarino	Santa Monica	CA	Maureen	McDonald	Los Angeles	CA
Kathryn	Manis	Riverside	CA	Pamela	McDonald	Riverside	CA
Garrett	Mann	San Diego	CA	Peter	McDonald	Fresno	CA
Judy	Mann	Santa Barbara	CA	Tracy	mcdonald	Glendale	CA
Helen	Manning-Brown	Atascadero	CA	Stacey	McDonald	Westlake Village	CA
Eva	Manus	Laguna Niguel	CA	Taylor	McDonald	North Hollywood	CA
Curtis	Marantz	Riverside	CA	Robert	Mcdonnell	Aliso Viejo	CA
Kirk	Margo	North Hollywood	CA	Doreen	McElvany	Indian Wells	CA
Laura	Marinelli	Los Angeles	CA	Duncan	McFarland	Encinitas	CA
Samantha-Jane	Markevich	Marina Del Rey	CA	Carolita	McGee	Carlsbad	CA
Shawnda	Marmorstein	Los Olivos	CA	Bruce	McGraw	San Diego	CA
Frances	Marsh	Santa Barbara	CA	Jane	McGraw	San Bernardino	CA
Rhys	Marsh	Los Angeles	CA	Colleen	McHugh	San Diego	CA
Sherry	Marsh	Oceanside	CA	Marsha	McIntosh	Stanton	CA
Dorrine	Marshall	Irvine	CA	Brenda	McIntyre	Laguna Niguel	CA
Staci	Martin	Carlsbad	CA	Tawny	McLellan	Ojai	CA
Joanna	Martin	Mission Viejo	CA	Michael	McMahan	Huntington Beach	CA
Julie	Martin	Frederic	WI	Gail	McMullen	Los Angeles	CA
Dick	Martin	Hesperia	CA	Jerry	McMurry	Lakeside	CA
John	Martinez	Lomita	CA	Anita	McMurtrey	Hanford	CA
c.	martinez	San Diego	CA	Nick	McNaughton	Los Angeles	CA
Ray	Martinez	Covina	CA	Susan	McNulty	Downey	CA
Gabriela	Martinez	North Hollywood	CA	Tom	McVay	Ladera Ranch	CA
Ann	Martini	Culver City	CA	Joan	Mead	Los Angeles	CA
Jaime	Marx	Pasadena	CA	Janet	Means	Laguna Woods	CA
Kris	Mashburn	Ojai	CA	Sherry	Meddick	Silverado	CA
Francesco	Masiello	Long Beach	CA	Ulrike	Mehler	Culver City	CA
Mary M.	Mason	Huntington Beach	CA	Adil	Mehta	Chatsworth	CA
Katherine	Massey	San Marcos	CA	Robert	Meier	Los Angeles	CA
Ann Gould	Massoubre	Los Osos	CA	Maeve	Meighan	Studio City	CA
Beth	Mather	San Diego	CA	Lily	Mejia	Hemet	CA
Dan	Matthews	Valley Center	CA	Russell	Melching	Pasadena	CA
Tamara	Matz	Los Angeles	CA	Carlos	Melgar	San Diego	CA
Casee	Maxfield	Los Angeles	CA	Marc	Melinkoff	Woodland Hills	CA
Geraldine	May	Creston	CA	Gilberto	Mello	Los Angeles	CA
Francoisel	May	Palm Springs	CA	Marissa	Mendoza	Hacienda Heights	CA
Joseph	Mayer	San Diego	CA	Jennifer	Mercede	Van Nuys	CA

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Beth	Merrill	Newbury Park	CA
Jibralta	Merrill	Valley Village	CA
Lesley	Meyer	Los Angeles	CA
Twyla	Meyer	Pomona	CA
Donna	Meyers	Lancaster	CA
Yolande	Michaels	Topanga	CA
Sue	Michelson	Studio City	CA
Gary	Milano	Bishop	CA
Ljiljana	Milic		11000
Brad	Miller	Santa Barbara	CA
Jerrilyn	Miller	Valley Village	CA
Kellie	Miller	Santa Ana	CA
Kelly	Miller	San Diego	CA
Rachelle	Miller	Fullerton	CA
Gary	Miller	Laguna Niguel	CA
Victoria	Miller	Encino	CA
John	Miller	Newport Beach	CA
Aileen	Milliman	Long Beach	CA
Christina	Mills	Needles	CA
Randy	Mills	Culver City	CA
Janelle	Milner	San Diego	CA
Jill	Miotke	Costa Mesa	CA
Amalia	Miranda	San Juan Capistrano	CA
Deedee	Mirmak	Yorba Linda	CA
Keary	Missler	Monterey	CA
Michal	Mitchell	Ojai	CA
Robert	Mize	Inyokern	CA
Negar	Modgeddi	Los Angeles	CA
Lea	Mohr	Wildomar	CA
Irene	Molina	Seeley	CA
Anneliese	Monnes	Monterey	CA
Myrian	Monnet	Pasadena	CA
Jeanette	Monroe	Aliso Viejo	CA
Dana	Monroe	San Diego	CA
Alida	Montanez-Salas	Norwalk	CA
Peter	Monteforte	Pacific Grove	CA
Thea	Montella	Pebble Beach	CA
Carol	Montgomery	Glendale	CA
Nadia	Moore-MS-UCDavis	San Diego	CA
Karla	Morales	North Hollywood	CA
Rosy	Morales	Rancho Palos Verdes	CA
Jennifer	Moramarco	Temecula	CA
Dan	Morgan	Rosamond	CA
Reyko	Mori	Glendale	CA
Amber	Morris	San Diego	CA
Tiffany-Marie	Morrison	Winnetka	CA
Keir	Morse	Claremont	CA
Jeffery	Morton	Marina	CA
Karen	Morton	Joshua Tree	CA
Lance	Moseley	Marina Del Rey	CA
Jim	Moseman	San Diego	CA
hen ryjj	moser	Laguna Woods	CA
Rich	Moser	Santa Barbara	CA
Jill	Mulato	Dana Point	CA
James	Mulcare	Clarkston	WA
Teresa	Mullins	Santa Barbara	CA
Ken	Mundy	Los Angeles	CA
Erica	Munn	Los Angeles	CA
Amy	Munnelly	Irvine	CA
Brigid	Murphy	Chino	CA
J	Murphy	San Diego	CA
Tim	Murphy	North Hollywood	CA
barbara	Murray	Los Angeles	CA
Joan	Murray	Los Angeles	CA
KATHRYN	MYERS	Paso Robles	CA
Gina	Nanarjain		1078JN
Jerry	Napombhejara	Irvine	CA
Matthew	Nasser	Los Angeles	CA
Loretta	Nathan	Los Angeles	CA
Julie	Naumann	Redondo Beach	CA
Lezlie	Navarro	Wildomar	CA
Matilde	Navarro	Garden Grove	CA
NANCY	NEELY	Rancho Cucamonga	CA
Stephanie	Neira	Ontario	CA
Brad	Nelson	Oxnard	CA
Julie	Nelson	North Hollywood	CA
Pamela	Nelson	Warner Springs	CA
Brennan	Nerhus	Long Beach	CA
Lisa	Neste	High Point	NC
Steven	Netkin	Sun City	CA
Christa	Neuber	West Hollywood	CA
Karen	Neubert	Los Angeles	CA
Alice	Neuhauser	Manhattan Beach	CA
Therese	Neustaedter	Hermosa Beach	CA
Sandra	Neveras	Watsonville	CA
Laura	Newton	Cathedral City	CA
Christine	Ney	Anaheim	CA
Anna	Nichols	Redondo Beach	CA
Kim	Nicholson	Valley Village	CA
Christina	Nillo	West Hollywood	CA
Lena	Nilsson	Laguna Beach	CA
Greg	Nishihira	Oceanside	CA
Stacy	Nisperos	Fullerton	CA
Barbara	Nogal	San Diego	CA
Michale	Noll	Valley Village	CA
David	Nolterieke	Aliso Viejo	CA
James	Noordyk	San Diego	CA
Shaun	Norris	Oxnard	CA
Ellen	North	Laguna Niguel	CA
Deena	Novak	Los Angeles	CA
Jean	Nunamaker	Santee	CA
stephanie	nunez	Van Nuys	CA

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Zero	Nunez	Van Nuys	CA	Dr R	Parkes	Encinitas	CA
Annabelle	Nye	West Hills	CA	Anthony	Parr	Altadena	CA
Tarin	O'Brien	Palm Springs	CA	Caryl	Parrish	Carlsbad	CA
Cynthia	Obyrne	Lompoc	CA	Elizabeth	Parro	Huntington Beach	CA
Melissa	Ochoa	Los Angeles	CA	Ronald	Partridge	Simi Valley	CA
Dan	OConnor	Arroyo Grande	CA	Anne	Parzick	Corona Del Mar	CA
Edward	O'Connor	Kansas City	MO	JOHN	PASQUA	Escondido	CA
Mark	ODell	Sierra Madre	CA	Dixie	Patterson	Morro Bay	CA
Gregg	Oelker	Altadena	CA	Mark	Pattullo	Los Angeles	CA
Edith	Ogella	Santa Barbara	CA	Lori	Paul	Altadena	CA
Alice	Okeefe	Anaheim	CA	Brenna	Pavey	Los Angeles	CA
Sean	O'Keeffe	Los Angeles	CA	Vivian	Peacock	Hollister	CA
Sofia	Okolowicz	Temecula	CA	Evelin	Pekin	San Dimas	CA
Nancy	Oliver	Valencia	CA	Dione	Peniche	Tarzana	CA
Nora	Oliver	La Canada Flintridge	CA	Paula	Pepin	San Clemente	CA
Jeffery	Olson	Vista	CA	Leah	Perales	Wildomar	CA
Allen	Olson	Minneapolis	MN	Giana	Peranio-Paz	Hendersonville	NC
Amanda	Olson	San Diego	CA	Richard	Perez	Torrance	CA
Krister	Olsson	Los Angeles	CA	Cristina	Perez	Playa Vista	CA
Jennifer	Olvera	Aliso Viejo	CA	Leticia	Perez	Chino Hills	CA
Cathy	O'Neill	Santa Monica	CA	Holly	Perez	Chula Vista	CA
Tammy	O'Neill	Los Angeles	CA	Yecenia	Perez	Marina	CA
Frances	Onesti	Lawndale	CA	Greg	Perkins	Long Beach	CA
Deanna	Onozuka	San Luis Obispo	CA	Anne	Perkins	Santa Monica	CA
Lynn	Orabona	Claremont	CA	Susan	Perry	Cambria	CA
Paula	Orbaugh	Carlsbad	CA	Allen And Karen	Perry	Yucca Valley	CA
Gerald	Orcholski	Pasadena	CA	Makiko	Peters	Huntington Beach	CA
Patricia	O'Reilly	La Mesa	CA	Staci	Peters	San Diego	CA
Angel	Orona	Alhambra	CA	Garrine	Petersen	Sun Valley	CA
Rosie	Orozco	Baldwin Park	CA	John	Peterson	Temecula	CA
Gina	Ortiz	Claremont	CA	David	Peterson	San Diego	CA
Kathryn	Osborn	La Mesa	CA	Rachel	Peterson	La Jolla	CA
Rita	Ospelt	Vista	CA	Todd	Peterson	Anaheim	CA
Hillary	Ostrow	Encino	CA	Denis	Petitt	Burbank	CA
Gina	Otos	Torrance	CA	Sue	Petteway	Los Angeles	CA
Annie	P	San Diego	CA	Carolyn	Pettis	Santa Clarita	CA
S	P	Del Mar	CA	Jamaka	Petzak	Glendale	CA
S	P	Chatsworth	CA	Victoria	Peyser	Newark	DE
Michele	Pacheco	Upland	CA	John	Pham	Encinitas	CA
Pat	Padilla	Porterville	CA	Tanya	Phillips	Pasadena	CA
Matthew	Page	Ventura	CA	Andrew	Philpot	Solvang	CA
Trisha	Pahmeier	Vista	CA	Steven	Pickering	Pasadena	CA
John	Palafoutas	Los Angeles	CA	Susan	Pierszalowski	Pacific Grove	CA
Beatriz	Pallanes	Santa Ana	CA	Lisa	Piner	Costa Mesa	CA
allie	palmer	San Clemente	CA	Anna	Pinto	Bakersfield	CA
Heidi	Palmer	Rancho Cucamonga	CA	Tina	Pirazzi	Long Beach	CA
Aydee	Palomino	La Quinta	CA	Danielle	Pirotte		4120
Sandra	Pankow	San Diego	CA	Barbara	Piszczek	Oxnard	CA
Robert	Pann	Los Angeles	CA	Trisha	Pitsch	Van Nuys	CA
Heidi	Paris	Chula Vista	CA	Marcella	Plant	San Diego	CA
Ruth	Park	Palm Desert	CA	Raymond	Plasse	West Hills	CA
Jennifer	Parker	Los Angeles	CA				

First Middle	Last	City	State	First Middle	Last	City	State
Mary F	Platter-Rieger	San Diego	CA	paulo	reeson	Pasadena	MD
Marie	Pleasant	San Diego	CA	Natasha	Reeves	Monrovia	CA
Pam	Plummer	Long Beach	CA	Sheri	Reeves	North Hollywood	CA
Allen	Pluth	Spring Valley	CA	Geoff	Regalado	Burbank	CA
Barbara	Poland	La Crescenta	CA	Fawn	Regan	Baker	CA
Tony	Policelli	Beverly Hills	CA	Alvaro de	Regil	Moorpark	CA
Docken	Polk	Woodland Hills	CA	Karen	Reibstein	San Diego	CA
Alan	Pollack	Woodland Hills	CA	Carol	Reiche	Santa Barbara	CA
Jeannie	Pollak	Oxnard	CA	Regina	Reinhardt	San Diego	CA
Diana	Polsky	Long Beach	CA	Robin	Reinhart	San Diego	CA
Michaela	Pond	Corona Del Mar	CA	Jennifer	Reinish	Santa Barbara	CA
Donnal	Poppe	Northridge	CA	Stephanie	Reis	Los Angeles	CA
Jessica Jean	Posner	Palmdale	CA	Nicholas	Remelman	Panorama City	CA
Rick	Posten	Los Angeles	CA	Edwyna	Rennie	Alhambra	CA
Janice	Powell	Goleta	CA	Kristen	Renton	Valencia	CA
Linda	Premo	Oceanside	CA	Cynthia	Replogle	Oceano	CA
Louise	Priest	Santa Paula	CA	Lisa	Reutzel	Lompoc	CA
Meredith	Priestley	Solana Beach	CA	James	Reynolds	Sunland	CA
Rosalie	Prieto	Bakersfield	CA	Lloyd	Reynolds	Fountain Valley	CA
Fiona	Priskich	Beverly Hills	CA	Janet	Rhodes	Cathedral City	CA
Penelope	Prochazka	Simi Valley	CA	Robert	Ricewasser	Monrovia	CA
Corey	Prost	Santa Monica	CA	Jacob	Richards	Carlsbad	CA
Mary	Proteau	Los Angeles	CA	Bob	Richardson	Huntington Beach	CA
Felena	Puentes	Bakersfield	CA	Heather	Rider	Los Angeles	CA
Evelina	Pulleva	San Diego	CA	Carol	Rigrod	Encino	CA
Judi	Putnam	Ramona	CA	D.	Rincon	Fresno	CA
Linda	Pydeski	Placentia	CA	James	Ring	Cathedral City	CA
		Rancho Santa		Alisa	Risso	Ladera Ranch	CA
Franklin	Quan	Margarita	CA	Rev. Maria	Riter Wilson	San Dimas	CA
Patricia	Quimby	Los Angeles	CA	Mario	Rivas	Sherman Oaks	CA
Hilary	Quinn	Goleta	CA	Brittany	Rivera	Los Angeles	CA
V	R	Los Angeles	CA	Katrina	Rivers	Lancaster	CA
Kendra	Rachels	Camarillo	CA	Tania	Roa	La Mirada	CA
Andy	Ramirez	Santa Ana	CA	Rob	Roberto	Santee	CA
Jessica	Ramirez	Los Angeles	CA	Les	Roberts	Fresno	CA
Melodie	Rammer	Carmel By The Sea	CA	Gail	Roberts	Tecate	CA
Paul	Ramos	Santa Ynez	CA	Jacquelyn	Roberts	Tehachapi	CA
Phillip	Randall	Woodland Hills	CA	Laura	Robinson	Irvine	CA
LOUISE	RANGEL	Santa Paula	CA	Nancy	Robinson	Ridgecrest	CA
Rosemary	Rannes	Salem	NH	Rima	Robinson	Santa Barbara	CA
Joan	Raphael	San Diego	CA	Jim	Robinson	Morro Bay	CA
Stephen	Rasmussen	Dana Point	CA	Chuck	Rocco	Simi Valley	CA
Elaine	Rathbun	San Luis Obispo	CA	Candace	Rocha	Los Angeles	CA
Robert	Rauh	Hesperia	CA	Katie	Rock	El Cajon	CA
Suzanne	Rawlings	San Diego	CA	Terrell	Rodefer	Van Nuys	CA
Joseph	Razo	Camarillo	CA	John	Rodrigues	Lakeside	CA
Mark	Reback	Los Angeles	CA	Levinson	Rodriguez	Mission Hills	CA
Ronald	Rediger	Newhall	CA	Rachel	Rodriguez	Pasadena	CA
Gordon	Reed	Newport Beach	CA	Erin	Roedeinger	San Diego	CA
Christy	Reed	Fillmore	CA	Pam Rogers	Rogers	Bellflower	CA
Stefany	Reed	La Mesa	CA	jeanne	rogers	Estero	FL
Gary	Reese	San Clemente	CA	stephanie	rohmer	Pasadena	MD

First Middle	Last	City	State	First Middle	Last	City	State
Tisa	Roland	Salinas	CA	Bruce	Saltzer	Glendale	CA
Sharon	Rollins	Bellflower	CA	Warren	Samuels	Aromas	CA
Marjorie	Roman	Newport Beach	CA	Sue	Sands	Malibu	CA
Mary	Romanek	Santa Monica	CA	Ken	Sanford	Escondido	CA
Gwen	Romani	Castaic	CA	Antonia	Santagati	San Diego	CA
Jessie	Root	Vista	CA	Kathryn	Santana	Duarte	CA
PJ	Rosch	Lake Forest	CA	Benedetta	Santopietro	Escondido	CA
Leah	Roschke	Encinitas	CA	Claudia	Saporiti	Hawthorne	CA
Ken	Rosen	Beverly Hills	CA	David	Sarricks	Running Springs	CA
roy	rosenblatt	Sherman Oaks	CA	Cathi	Sasser	Yorba Linda	CA
Lisa	Rosenfield	Van Nuys	CA	L	Saunders		4122
Steve	Rosin	Pasadena	CA	Leslie	Sayre	Irvine	CA
Kathleen	Ross	Encinitas	CA	Lynne	Schabert	Santa Barbara	CA
Deborah	Ross	Los Osos	CA	Dale	Schafer	Malibu	CA
Kat	Ross	Los Angeles	CA	Ginger	Schedler	Fresno	CA
Sara	Ross	Los Angeles	CA	Doug	Scheel	Los Osos	CA
Ana	Rosvall	Vista	CA	Amy Van	Schijndel	San Diego	CA
Gary	Roswell	Long Beach	CA	Arnold	Schildhaus	Santa Barbara	CA
Michael	Rotcher	Mission Viejo	CA	Denise	Schlatter	Winnetka	CA
Amy	Rouillard	San Diego	CA	Melissa	Schlothan	Huntington Beach	CA
Shea	Rowan	Woodland Hills	CA	Diana	Schmidt	Fallbrook	CA
Shea	Rowan	Woodland Hills	CA	Fran	Schmidt	La Jolla	CA
Lynnette	Royce	Bishop	CA	Richard	Schmitt	Hemet	CA
Gene	Rubin	Ventura	CA	George	Schneider	San Diego	CA
J.	Rubin	El Toro	CA	Jerry	Schneider	Los Angeles	CA
Jessica De	Ruiter	Los Angeles	CA	Judeen	Schneider	Long Beach	CA
Cecilia	Ruiz	Rancho Cucamonga	CA	Anna	Schofield	Los Angeles	CA
Nicholas	Rulli	Los Angeles	CA	Sarah	Scholar	Fresno	CA
Tom	Rummel	San Diego	CA	Heather	Schraeder	Culver City	CA
Angela	Russell	Goleta	CA	David	Schroeder	Los Angeles	CA
Elaine	Russell	Long Beach	CA	James	Schulte	San Luis Obispo	CA
Robin	Russell	Beverly Hills	CA	Caryn	Schultz	San Clemente	CA
Jennifer	Russell	Santa Monica	CA	Jonathon	Schumacher	Los Angeles	CA
Adrienne	Russo	Santa Barbara	CA	Greg And Laurie	Schwaller	Three Rivers	CA
Robert	Russo	Glendora	CA	Alan	Schwartz	Oxnard	CA
Jayson	Ruth	Huntington Beach	CA	Axel	Schwarz	San Diego	CA
Brian	Rutkin	Culver City	CA	Dena	Schwimmer	Los Angeles	CA
John	Ruttner	Redlands	CA	Diane	Scioli	Costa Mesa	CA
Gerald	Ryan	Flemington	NJ	Joan	Scott	Joshua Tree	CA
Tim	Ryan	Capistrano Beach	CA	Laurel	Scott	San Diego	CA
Kimberly	Ryan	Wichita	KS	Alain	Scott	La Mesa	CA
Therese	Ryan	Palmdale	CA	Ann	Scott	Carlsbad	CA
Susan	Ryan	Los Angeles	CA	Anna	Scotti	Burbank	CA
Dominique	Ryba	Vista	CA	Patricia	Seaward	Idyllwild	CA
Gail	Ryland	Pebble Beach	CA	Susan	Sebanc	Marina Del Rey	CA
Laurie	S	Beverly Hills	CA	Ellen	Segal	North Hollywood	CA
Naomi	Sahay	San Diego	CA	Carl	Seibert	Costa Mesa	CA
Maxine	Saine	Bakersfield	CA	Rob	Seltzer	Malibu	CA
Mariana	Salerno	San Diego	CA	Sylvia	Selverston	San Diego	CA
Judith	Salkin	Cathedral City	CA	Rishabh	Sen	Fulton	CA
Claudia	Sall	Pioneertown	CA	Jon	Senour	San Diego	CA
Reece	Salmons	San Diego	CA				

First Middle	Last	City	State
Barbara	Sentovich	Los Alamitos	CA
Elliott	Sernel	Palm Springs	CA
Robert	Sewekow	Bonita	CA
marcia	sewelson	Studio City	CA
Casey	Seyb	Sierra Madre	CA
Gordon	Seyfarth	Vandalia	MI
Janette	Shablow	Oceano	CA
Linda	Shadle	Anaheim	CA
Brooke	Shaffer	Hesperia	CA
Gerald	Shaia	Sun Valley	CA
Sheila	Shane	Huntington Beach	CA
David	Shannahoff-Khalsa	Del Mar	CA
Michael	Shapiro	Goleta	CA
Virginia	Sharkey	San Diego	CA
June	Sharp	Bakersfield	CA
Donna	Shaw	Simi Valley	CA
Katie	Shaw	Manhattan Beach	CA
Phyllis	Shaw	West Hollywood	CA
Phyllis	Shaw	West Hollywood	CA
A.f.	shayne	Los Angeles	CA
Lenore	Sheffield	Los Angeles	CA
Jason	Shepherd	Newbury Park	CA
Sheila	Sheppard	Carmel By The Sea	CA
Amrit	Shergill	Encinitas	CA
Tawny	Sherrill	Garden Grove	CA
Paul	Shires	Arroyo Grande	CA
Judy	Shively	San Diego	CA
Clare	Shomer	Los Angeles	CA
Ryan	Shopay	Woodland Hills	CA
Tami	Shotts	Highland	CA
Tina	Shull	Costa Mesa	CA
Robin	Shushan	San Diego	CA
Marguerite	Shuster	Sierra Madre	CA
John	Shutt	Marina Del Rey	CA
Amir	Siassi	Los Angeles	CA
Kimberly	Sickel	Cypress	CA
Joleen	Siebert	Reedley	CA
Nancy	Siegrist	Apple Valley	CA
Ceaser	Sigala	El Monte	CA
Jessica	Silva	San Diego	CA
Dan	Silver	Los Angeles	CA
Victoria	Silver	Irvine	CA
Violet	Simmons	Van Nuys	CA
Theresa	Simpson	Santa Ana	CA
Cheryl	Sims	Los Angeles	CA
Christina	Singleton	Pacific Palisades	CA
Joan	Sitnick	Encino	CA
Dita	Skalic	Palm Desert	CA
Ingrid	Skei	Thousand Oaks	CA
John	Skillman	Wrightwood	CA
Pam	Slater-Price	Del Mar	CA
Holly	Sletteland	Templeton	CA
Susan	Sloan	Los Angeles	CA
June	Smith	San Pedro	CA
Diane	Smith	Los Angeles	CA
Gaye	Smith	Los Angeles	CA
Kelly	Smith	San Diego	CA
Yvonne	Smith	Upland	CA
Missie	Smith	Tehachapi	CA
Nancy	Smith	Santa Monica	CA
Philip	Smith	Thousand Oaks	CA
Julie	Smith	Los Osos	CA
Richard	Smith	Kissimmee	FL
Robert	Smith	Fillmore	CA
Wendy	Smith	Anaheim	CA
Irene	Snavely	Covina	CA
Gerald	Sobel	Santa Monica	CA
Isabelle Du	Soleil	Los Angeles	CA
Jessica	Solis	Duarte	CA
Diana	Solomon	Culver City	CA
Lauren	Sopata	La Mesa	CA
C	Sor	San Diego	CA
Scott	Soria	Encinitas	CA
Michael	Sosa	Los Angeles	CA
Edy	Soto	Sylmar	CA
Amanda	Sousa	San Diego	CA
Mary	Sousa	Irvine	CA
Mitzi	Spallas	Los Angeles	CA
Linda	Spanski	Oceanside	CA
Rick	Sparks	North Hollywood	CA
Michelle	Sparks-Gillis	Solvang	CA
Margrit	Spear	Jamul	CA
Mary	Speare	San Diego	CA
Kurt	Speidel	San Clemente	CA
Brent	Spencer	Long Beach	CA
D R	Spencer	San Diego	CA
Constance	Spenger	Big Pine	CA
leslie	spoon	Los Osos	CA
Richard	Spotts	Saint George	UT
Judy	Sprinkle	San Diego	CA
Joan	Squires	Oceanside	CA
Mari	Stachenfeld	Aliso Viejo	CA
Ken	Stack	Los Angeles	CA
Lynn	Stafford	Pine Mountain Club	CA
Gail	Staley	Wildomar	CA
Mark	Standon	San Bernardino	CA
Jerry	Stanley	Arroyo Grande	CA
Russell	Stanley	San Bernardino	CA
Mark	Stannard	Los Angeles	CA
Neil	Stanton	Chula Vista	CA
Diane	Starzak	Oak Park	CA
Nancy	Stassinopoulos	San Diego	CA
Lori	Stayton	Sherman Oaks	CA

First Middle	Last	City	State
Peter	Stearns	Long Beach	CA
Sara	Steck	Bishop	CA
Billy	Steele	San Diego	CA
Mary	Steele	Laguna Niguel	CA
George	Steeves	Van Nuys	CA
Cindy	Stein	Thousand Oaks	CA
Ken	Stein	Thousand Oaks	CA
Neal	Steiner	Los Angeles	CA
Andrea	Steloff	West Hollywood	CA
Kate	Stemig	Hermosa Beach	CA
Sandra	Sterling	Borrego Springs	CA
Herb	Stern	San Diego	CA
Lewis And Diane	Sternfels	Los Angeles	CA
Robin	Steudle	Laguna Woods	CA
Christine	Stewart	Escondido	CA
pat	stewart	Ventura	CA
Bonnie	Stillwater	Los Angeles	CA
Amy	Stinstrom	Irvine	CA
Cristina	Stobaugh	Irvine	CA
Connie	Stomper	Santa Barbara	CA
Peter	Stone	San Diego	CA
Sue	Stone	Fresno	CA
Colleen	Stoyas	San Diego	CA
Ann	Stratten	La Mesa	CA
Rosa	Strayer	Whittier	CA
Liz	Stromath	Manhattan Beach	CA
Jennifer	Strong-Pardus	South Pasadena	CA
Carolyn	Stuart	Beverly Hills	CA
Bruce	Stubbs	Carlsbad	CA
Sandy	Stuhaan	Ridgecrest	CA
Kris	Sullivan	Los Angeles	CA
Mary	Sullivan	Huntington Beach	CA
Joan, Paul, and PJ	Sullivan	Ventura	CA
Kathleen	Sullivan	Camarillo	CA
Mark	Sussek	Van Nuys	CA
Debra	Swartz	Los Angeles	CA
Annika	Swenson	Long Beach	CA
Tyffanie Bell	Sypher	Chatsworth	CA
Sheila	T.	Moreno Valley	CA
Kenneth	Tabachnick	West Hills	CA
Barbara	Tacker	Camarillo	CA
Ann	Tait	Pasadena	CA
Cornelia	Talbott	Brawley	CA
Donna	Tanner	Concord	MA
Carol	Tao	Salinas	CA
Alec	Taratula	Alhambra	CA
Joanne	Tasher	Escondido	CA
Fred	Tashima	Los Angeles	CA
Terance	Tashiro	Los Angeles	CA
Thomas	Tataranowicz	Malibu	CA
Georgia	Tattu	Hermosa Beach	CA
Michele	Taylor	Oceanside	CA
Robert	Taylor	Thousand Oaks	CA
Susannah	Teague	Reseda	CA
Tevet	Tee	Los Angeles	CA
Joanne	Tenney	Escondido	CA
Anne	Terhune	El Cajon	CA
Leslie	Ternullo	Pacific Grove	CA
Michael	Terry	Santa Monica	CA
Lesley	Terwilliger	Ventura	CA
Marlene	Testaguzza	Aromas	CA
Roberta	Teubner	Atascadero	CA
Jeff	Thayer	San Diego	CA
Eric	Thein	Escondido	CA
CHERYL	THOMAS	Mission Viejo	CA
Danielle	Thomas	Santa Monica	CA
Carrie	Thomas	Huntington Beach	CA
Shad	Thomas	Pasadena	CA
Donna	Thomas	Morongo Valley	CA
Shakayla	Thomas	Compton	CA
Brian	Thompson	Santa Barbara	CA
Roberta	Thompson	Sun Valley	CA
Brenda	Thompson	La Mesa	CA
Paula	Thompson	San Diego	CA
Barbara	Thornton	Redondo Beach	CA
Casey	Tibbet	Riverside	CA
Deborah	Tibbetts	San Diego	CA
Gaby	Till	Escondido	CA
Carol	Tinker	El Cajon	CA
Bob	Tintle	Pacific Grove	CA
Elisenda	Toda		17007
Zachary	Todd	Long Beach	CA
Lisa	Toliver	Carlsbad	CA
Thi	Tonolshaskie	Arroyo Grande	CA
Michele	Tornabene	Summerland	CA
Laura	Torres	Los Angeles	CA
Yvette	Torres	Riverside	CA
Sharon	Torrisi	Hermosa Beach	CA
Barbara	Tosh	Seaside	CA
Susan	Tova	Santa Ynez	CA
Arlette	Towner	La Crescenta	CA
Carlos	Townsend	Fountain Valley	CA
Michelle	Trafficante	South Pasadena	CA
Jackie	Tran	Rosemead	CA
Kim	Tran	Santa Ana	CA
Adam	Trauger	Long Beach	CA
Madeleine	Travis	Los Angeles	CA
Teresa	Trebotic	Los Angeles	CA
Ivy	Trent	Altadena	CA
Linda	Trevillian	Alhambra	CA
Fancisco	Trevino	Long Beach	CA
Charles	Tribbey	San Luis Obispo	CA

First Middle	Last	City	State	First Middle	Last	City	State
Edie	Trimmer	Big Pine	CA	Aino	Vimb	Sunland	CA
Irina	Tripolskaya	Arcadia	CA	Bruce	Vincent	Ojai	CA
Martin	Tripp	Santa Clarita	CA	Cynthia	Vinney	Culver City	CA
Olga	Trojakova		90501	Nichelle	Virzi	Jurupa Valley	CA
Beth	Trussell	Burbank	CA	Mikhail	Vizel	Moorpark	CA
Laura	Tryon	Carmel	CA	Janny	Vogel	Oceanside	CA
Haley	Tsarofski	La Crescenta	CA	Alex	Von Dallwitz	Carmel	CA
Marlene	Tucay	Anaheim	CA	A	Vs	San Diego	CA
Nancy	Tucker	Los Angeles	CA	V	W	Lancaster	CA
Timothy	Tucker	Fresno	CA	E	W	Beverly Hills	CA
Gabriella	Turek	Pasadena	CA	Mary	Wade	La Mesa	CA
Joy	Turlo	Redondo Beach	CA	Victoria	Wade	Marina	CA
Jeanne	Turner	Monterey	CA	Gene W	Waggoner II	Pinon Hills	CA
Lana	Turner	Woodland Hills	CA	Inge	Wagner	Los Angeles	CA
Ilya	Turov	Moreno Valley	CA	Marie	Wakefield	Newport	OR
Sherry	Tyler	Ventura	CA			Rancho Santa	
Erica	Tyron	Claremont	CA	Sandra	Walker	Margarita	CA
Kathleen	Tyson	Riverside	CA	Nancy	Walker	Glendale	CA
Holly	Urbanus	Goleta	CA	Verla D.	Walker	West Covina	CA
Jolene	Vadillo	San Marcos	CA	Barry	Wallace	Highland	CA
Aaron	Valdez	Salinas	CA	Jon	Wallace	Ventura	CA
Alexia	Valdora	La Quinta	CA	Simone	Wallace	Trona	CA
K	Valentine	Carson	CA	Karina	Walsh	San Diego	CA
Javier Del	Valle	Monterey Park	CA	Judith	Walter	Palmdale	CA
Danny	van Huizen		5665PT	Nancy	Walter	San Luis Obispo	CA
Maritza	Vance	Canoga Park	CA	Sara	Wan	Malibu	CA
Pamela	Vancortlandt	Los Angeles	CA	Lew	Warden	Big Bear City	CA
Lise	vandal	Schenectady	NY	John	Warner	Goleta	CA
Ron	Vanderford	Burbank	CA	Paula	Warner	Lakewood	CA
John	Varga	Huntington Beach	CA	Katherine	Warner	Ventura	CA
Christopher	Vargas	Anaheim	CA	Vic	Warren	San Diego	CA
Jessica	Varlet	Pasadena	CA	Scott	Warwick	Altadena	CA
Melissa	Vasconcellos	Ventura	CA	Tracy	Watada	Marina Del Rey	CA
Crystal	Vassil	Oceanside	CA	Marsha	Waterbury	Los Angeles	CA
Joe	Vecchi	Garden Grove	CA	Diana	Waters	Torrance	CA
Victoria	Vega	West Covina	CA	Breana	Watkins	Calabasas	CA
Glen	Venezio	San Juan	PR	Danuta	Watola		42660
Lesley	Vennero	Santa Clarita	CA	Mary	Watson	San Pedro	CA
Dirk	Verbeuren	Valley Village	CA	Virginia	Watson	Los Angeles	CA
Shellie	Vermeer	Laguna Hills	CA	Stephanie	Watters	Trabuco Canyon	CA
Geena	Verna	Torrance	CA	Margret	Watts	Glendale	CA
Shirley	Vernale	Los Angeles	CA	Don	Webb	Santa Barbara	CA
Kara	Vesely	Long Beach	CA	Faith	Weedn	Los Olivos	CA
Janice	Vieth	Covina	CA	Annie	Wei		48700
Genny	Villa	Oceanside	CA	Laurie	Weigandt	La Mesa	CA
Juan	Villagomez	Palmdale	CA	Garrett	Weinstein	West Hills	CA
Victoria	Villagran	Temecula	CA	Joe	Weis	Reedley	CA
Gladys	Villagrana	Moreno Valley	CA	Rita	Weisheit	Manhattan Beach	CA
Timothy	Villalobos	Spring Valley	CA	Lynne	Weiske	Los Angeles	CA
Constance	Villalvazo	Los Angeles	CA	Valerie	Weitz	Encino	CA
Mishel De	Ville	Fullerton	CA	Jeff	Wells	San Diego	CA
Saul	Villicana	Long Beach	CA	R	Wells	Los Angeles	CA

First Middle	Last	City	State
Jennifer	Wesson	Fresno	CA
Lori	West	Coronado	CA
Karen	Weston	Palmdale	CA
Amber	Wheat	Redondo Beach	CA
Linda	Whetstine	Poway	CA
Dave	Whipple	Pacific Grove	CA
Mindi	White	Los Angeles	CA
Karina	White	Sierra Madre	CA
Steve	White	Santa Monica	CA
Michael	White	Los Angeles	CA
Frances	Whiteside	Montclair	CA
Erika	Whitton	Irvine	CA
Barbara	Whyman	Ventura	CA
Joan	Wickham	Pasadena	CA
Monica	Wiesener	Calabasas	CA
Kathryn	Wild	San Diego	CA
Laura	Wild	Santa Barbara	CA
Carol	Wiley	Victorville	CA
Gail	Wilke	Sunland	CA
Wendy	Wilke	Fresno	CA
Jere	Wilkerson	Avila Beach	CA
Jennifer	Wilkerson	Pacific Grove	CA
Connie	Wilkinson	Pismo Beach	CA
Bri	Williams	Julian	CA
Christina	Williams	Los Angeles	CA
Cole	Williams	Los Angeles	CA
Cassandra	Williams	Brawley	CA
Sandy	Williams	Covina	CA
John	Williams	Los Angeles	CA
Ted	Williams	Ralls	TX
Judy	Williams	Caliente	CA
Donna	Williams	Los Angeles	CA
James	Wilson	Verona	MS
Tim	Wilson	Poway	CA
Agnew	Wilson	West Hollywood	CA
Marianne	Wilson	Granada Hills	CA
William	Winburn	Rancho Palos Verdes	CA
Betty	Winholtz	Morro Bay	CA
Joie	Winnick	Sherman Oaks	CA
Karen	Winnick	Beverly Hills	CA
Teresa	Winsor	San Diego	CA
Anita	Wisch	Valencia	CA
Melissa	Witt	Van Nuys	CA
Rose Ann	Witt	Thousand Oaks	CA
Wendy	Wittl	Santa Barbara	CA
Amy	Wolfberg	Los Angeles	CA
Charles	Wolfe	Sylmar	CA
Pat	Wolff	Arcadia	CA
Nina	Wong	San Gabriel	CA
Valeree	Woodard	Joshua Tree	CA
Joann	Woodring	San Diego	CA
Jean	Woodrow	San Pedro	CA
Tansy	Woods	San Diego	CA
Scott	Workinger	Yucca Valley	CA
Emily	Worrell	San Luis Obispo	CA
Darcy	Wright	Vista	CA
Madeline	Wright	Los Angeles	CA
Susan	Wright	Bakersfield	CA
Tiffany	Wu	Oak Park	CA
Kristina	Wunder	Santa Monica	CA
Caitlin	Wylde	Los Angeles	CA
June	Yamada	Westminster	CA
Mary	Yang	Solana Beach	CA
Kenneth	Yates	Pacific Palisades	CA
Gail	Yborra	Wilmington	DE
Kathy	Yeomans	Ventura	CA
Julian	Yerena Jr	Parlier	CA
Patricia	Yoder	Oceanside	CA
Jo	Young	Culver City	CA
Noah	Youngelson	Los Angeles	CA
Ethan	Zachadnyk	La Jolla	CA
Ethan	Zachadnyk	La Jolla	CA
Julie	Zack	Fresno	CA
Cindy	Zacks	Joshua Tree	CA
Rena	Zaman-Zade	Escondido	CA
Sandra	Zaninovich	Los Angeles	CA
Patrice	Zboya	Concord	NH
Felicia Chase	Zeff	Woodland Hills	CA
Sandy	Zelasko	Valley Center	CA
Kathy	Zelaya	Los Angeles	CA
Silvana	Zelmanovich		20036
Esther	Zepeda	Los Angeles	CA
Jose	Zermeno	Fontana	CA
Paige	Ziehlermartin	Pasadena	CA
Erika	Ziesmann	Covina	CA
Monika	Zimaniova	Sherman Oaks	CA
Louise	Zimmer	Temecula	CA
Loy	Zimmerman	Long Beach	CA
Nicholas	Zizelis	Palm Springs	CA
Steve	Zmak	Marina	CA
Malgorzata	Zmuda		32332
Teresa	Zollars	Fresno	CA

FORM EMAILS

Comment #	
1 (Form Letter) ~2,050	Dear Oceano Dunes HCP Field Supervisor, I am writing to urge you to/(Please do everything in your power) to protect the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area. The habitat conservation plan you're working on cannot include any decrease in protections for nesting birds for any reason. And the accompanying environmental review must provide a clear proposed action and a reasonable slate of alternatives to protect imperiled wildlife and the health of nearby communities. I oppose the current proposed action detailed in the federal register notice for several reasons. First, it calls for reducing protective fencing set aside for nesting birds in order to increase areas for off-road vehicles. This is unacceptable. Any increase in areas where vehicles can drive during the nesting season will harm nesting and breeding birds and shouldn't be part of the alternatives for a conservation plan. State Parks also needs to address air-quality issues caused by ORV use that are already harming the local community. Any expansion of recreation areas or use will worsen this problem. And finally, 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. Thank you for addressing these concerns as the planning process moves forward.
ADDED TEXT TO FORM LETTER	
2	STOP MURDERING THESE BIRDS. STOP YOUR CRUELTY. STAND UP TO THE HORROR IN THE WHITEHOUSE.
3	Please stand up to protect our environment against the exhaust, dust, and noise polution from off road vehicles on and around our beaches. In addition to harming the environment, it's destroying the habitat for not just these birds, but sea life in general.
4	As an Oceano resident, I want to ensure our small feathered residents are not put at risk by offroading on the Dunes.
5	The Oceano Dunes State Vehicular Recreation Area and the imperiled animals and plants that inhabit this unique ecosystem need to be protected from further harassment, slaughter and destruction. You must create a Habitat Conservation Plan that increases protections of nesting shorebirds which includes safeguards under state law for all the area's rare animals and plants. It’s shameful and unethical that you have not taken action years back to minimize or eliminate the damage to this unique ecosystems and its rare species. You have the duty to do everything in your power to protect habitats and species that are imperiled due to mismanagement and human abuse. Snowy plovers are one of the endangered shorebirds facing assault and death when they are run over by off-road vehicles (ORV). This is unacceptable and must stop immediately. ORV should not even be allowed in fragile habitats inhabited by endangered and/or threatened species. How can these birds breed, nest , feed and rest safely with this harassment and destruction? Your current proposal expands recreational areas and reduces protective fencing designated for nesting shorebirds to allow even more ORV. This is more assault to injury. The impact of more ORV will further increase the noise and air pollution of this fragile community. Furthermore, to ensure any impacts to endangered and/or threatened species are compensated, a State Natural Communities Conservation Plan needs to be implemented. I trust you will act with true leadership, vision conservation ethic to protect rare ecosystems and the plant and animal species that inhabit them.
6	These uncivilized drivers are destroying our beaches. They also take advantage of many streets in our cities. They should be put in a cell where they can use all the energy they have thanks to a country that has food to put on our tables. Or fine them with time serving the communities. It is a shame that in California we have to defend our birds and their ecosystem from these useless individuals!

7	I am writing as a biologist & avid outdoorsperson to urge you to do everything in your power to protect the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area. The habitat conservation plan you're working on cannot include any decrease in protections for nesting birds for any reason. And the accompanying environmental review must provide a clear proposed action and a reasonable slate of alternatives to protect imperiled wildlife and the health of nearby communities.
8	I do not think that the thrill of driving a vehicle on sand should supercede the needs of the shorebirds or that of the ecology as a whole.
9	I have enjoyed using the vehicle recreation area myself, and do believe it is a valuable thing to have nearby our homes (I am living in San Jose now, but previously lived in San Luis Obispo, and still enjoy visiting the central coast when I can). However, if it is endangering rare plants and animals, then that danger must be mitigated. Surely there are other areas where we can enjoy our vehicles without harming our precious wildlife.
10	By the way, I've ridden OHV's at Oceano Dunes. My son attended Cal Poly and spent plenty of time there. We're sympathetic to the use of the park for OHV use. But, it's the 21st century, we need to protect these species, and I think there's plenty of room for us all to get along.
11	My opinion is that this land is better served by conservation, rather than harmful recreation. I value the snowy plover and other shorebird and consider this finite resource to be of prime importance.
12	Do not turn California beaches into waste dumps! Protect our shores. Texas allows driving on beaches and that has destroyed the beaches.
13	There are at risk plants and animals living within the Oceano Dunes State Vehicular Recreation Area, and I urge you to do all that you can to protect them. Your proposed habitat conservation plan should NOT reduce protections for nesting birds, including the endangered Snowy Plover, for any reason. Also, the accompanying environmental review should present a distinct action plan plus sensible alternatives to safeguard both imperiled wildlife and the health of communities nearby. Thus, I contest the current proposed action specified in the federal register notice for several reasons. First off, it calls for diminishing fencing set aside to protect nesting birds which would increase the area for off-road vehicles. In so doing, vehicles driven during the nesting season would harm nesting and breeding birds, and therefore, should not be part of any alternative conservation plan. Furthermore, any plan needs to confront air-quality problems caused by off-road vehicle use that are already affecting the health of nearby communities. Any enlargement of recreation areas or use will aggravate this problem. Lastly, a state natural communities conservation plan is required to guarantee that any impacts to Snowy Plovers, Least Terns and other protected species are fully mitigated. Thank you for weighing my comments as the planning process proceeds.
14	As an of road enthusiast that also appreciates our delicate ecosystem, I am writing to urge you to do everything in your power to protect the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area.
15	For better or worse our species has the power to determine the fate of all others. Thus you have the power to end the lives of God's creatures through your actions. I trust such decisions are made with full knowledge of their long term impact. One can't imagine anyone believing the rights of man's temporary pleasures should be held in higher regard than the protection of God's creatures. I sincerely hope your conscious guides your actions in this matter as one can never restore a life which has been destroyed. May your decisions always be thoughtful so you never suffer the miserable affliction of regret.
16	Thank you for addressing these concerns as the planning process moves forward. Momentary "fun" driving on the fragile dunes will never be worth losing these species that are severely impacted by these activities. Again, please help!
17	I drive 3 hours to go to this lovely beach about 3 times a year, and love watching the snow plovers. Please realize you will lose tourism.
18	When will man stop only thinking of themselves and how much money can be made from everything? Humankind destroys everything it touches. We need to wake up and preserve what we have left of our planet. It's the only one we have, but man acts like we have many more them!
19	For four decades and more I continue to bird, even at 88 years of age, Oso Flaco Lake, Oceano Camgrounds and Pismo Beach areas and am appalled at the steady increase of vehicular "recreation" with its pollution, yes, and concomitant destruction of precious fauna and flora.
20	Off road vehicles need to go elsewhere and certainly NOT where birds need habitat. The birds are having a tough time finding safe habitat anywhere with our growing population.

21	EVERY LIVING CREATURE, INCLUDING SNOWY PLOVERS AND ALL SHOREBIRDS ARE VITAL TO LIFE. Why should off-road vehicles have more rights to access on to these beaches than the Snowy Plovers who have nested there longer than the drivers of these vehicles? Maybe you could divert the ORV traffic to another beach or another area of the beach? Would that be possible? Or maybe you could prohibit ORV driving on this beach altogether. Yes, this would piss off the drivers, but the birds would be saved - and their lives are just as important or more than the polluting vehicles and possibly trash from the drivers
22	The bigger question is why are you facilitating destruction of a species, fouling air and land with out of control ORV riders who seem to carelessly disregard the damage they do? U.S. Fish & Wildlife departments are supposed to primarily PROTECT wildlife while restricting activities that will forever damage and/or destroy Oceano Dunes habitats?
23	Why isn't action being taken to prevent endangered nesting shorebirds from being trampled by off road vehicles?
24	Once these birds are killed, they are gone for good. If you do not stop idiots on off-road vehicles from killing them, then no one has the power to protect these birds. The Constitution does not give permission to kill off everything just for "fun." So do your job and protect the environment. Now here is the safe version of the standard letter.
25	Unfortunately, the current proposal reduces the protective fencing that creates a safe haven for nesting shorebirds, which could allow for even more ORV traffic on the beach. More vehicles will mean more dead birds and worse air quality for the local community. Wildlife officials must create this plan to increase protections for nesting shorebirds and include safeguards under state law for all the area's rare plants and animals.
26	Time to get your s&%t in action and stop the killing! We have waited too long for action at Oceano Dunes SVRA. #SavetheSnowyPlovers
27	Please address the killing of snowy plovers by reckless recreational vehicles destroying their habitat immediately. I begin to suspect that mankind will not be satisfied until humans are the only species surviving, which will lead to the extinction of H. sapiens.
28	There is absolutely NO REASON that ORV's should have precedence over nature on our public beaches!
29	PLEASE STOP THE ERADICATION OF SNOWY PLOVERS BY BEING CRUSHED UNDER ORV'S. YOU HAVE THE POWER TO PROTECT AND SAVE THEM, PLEASE DO SO NOW. THANK YOU!
30	As a resident of California's Central Coast, I have borne witness to far too much loss of our natural beach habitats.
31	My family and I care deeply about this issue!
32	Why must flora and fauna and their habitat continue to be sacrificed for the "fun" of an overpopulating species that has countless other ways to experience an adrenalin rush - hardly the way to experience the wonders of this natural landscape. The fact that that they regularly kill/injure each other speaks to the thoughtlessness of their behavior.
33	Protect our wildlife and ban ORV's that kill, destroy, and pollute. Step up and be part of the solution for preserving our natural resources now and for future generations.
34	I would have never thought I'd be writing to a California agency to BEG them to stop this but, there you are...I am shocked because you've done such a good job everywhere else that is still salvageable as habitat for these endangered birds.
35	There is no need for people to be driving on the beach. Vehicles leak oil, polluting the air and water and reduce the peaceful atmosphere most people and wildlife expect to find at the beach.
36	Your lack of interest in saving defenseless birds and their babies is shameful. Please rethink and adjust your so far terrible policies. People can off-road in plenty of other places.
37	We don't need dune buggies and people swarming this area! I know, I have been there, I have ridden dune buggies.
38	Your plan to reduce harm to the snowy plover's doesn't look very good. Surely you can do a better job! I have been to many beaches where there are warning signs and regulations to protect these birds. Why not you?
39	Allowing 4X4 vehicles run over rare and threatened birds on their nesting areas is insane. The idea of having an off-road area in a known nesting site is also insane. It is your responsibility to protect these birds and plants from the destructive actions of a bunch of testosterone driven idiots. It should be a no brainer that this area be closed during breeding season and protected plants should be cordoned off from these raging vehicles.
40	I have seen how New Jersey takes care of their rare snowy plovers, protects beaches and their habitat, and educates the public to understand the importance of doing so. California should be leading the way.
41	What is happening now is NOT okay. This must stop and the birds must be protected

42	Preservation of our habitat and our wildlife is a primary responsibility for humanity in our age. Allowing off-road vehicles to destroy the habitat of endangered animals is absolutely unacceptable. I
43	I oppose the increasing use of the dunes by selfish and short sighted off road vehicles on valuable coastal resources. I ride my dirt bike only on private race tracks that do not endanger our wildlife.
44	Here in Cambria the Western Snowy Plover is showing up by the dozens this winter for the first time in decades on Santa Rosa Creek Beach. Protecting them here is crucial. Protecting them at Oceano Dunes should show us how!
45	As you may know, this same thing happened in North Carolina/Cape Hatteras concerning endangered nesting plovers and OHV's. The Park Service put an end to it during plover's nesting season, which was not popular with the righteous ORV owners. However, the people wouldn't stay off the dunes so it had to be done. Dunes need to be protected anyway not only as habitat, but as first line of coastal protection in super-high tides. With so many entities competing for their "rights", it's time for a "rights hierarchy". Protecting wildlife and preventing flooding has a higher purpose than allowing a frequently drunken "yee-haa" good time to those who would tear through the dunes. Natural areas such as these should be off limits to these destructive, land-scarring, air-fouling, noise-polluting recreational vehicles anyway. Permit access for surf-fishing, but reconsider these recreational 4wd uses. With so little natural quiet space available to our densely populated coasts, it is assaulting to encounter more noise and pollution along our pristine coastline. Besides, there are so few dunescapes left in Coastal California. Relegate this activity to another (contained) location, please.
46	If anything there should be an INCREASE in protective fencing to protect the wildlife and prevent damage to this valuable resource. This would be more inline with the mandate of USFWS, 'to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.'
47	My husband and I have visited the wonderful beaches in this area. I was very impressed with Santa Barbara County rangers who care deeply about the Snowy Plover in their regional park. I believe you should follow their example. I urge you commit as they have to protect the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area.
48	MORE wildlife protections, not Less. Actions & Alternatives required.
49	As a California wildlife biologist and former zoo keeper at the Los Angeles Zoo who has traveled extensively along California's beautiful central coast, I am appalled by the existence of the Oceano Dunes State Vehicular Recreation Area and further dismayed by plans to increase access of vehicles to fragile coastal dunes. Off-road vehicles are consumptive, destructive users of the coast. As climate change and an increase in coastal populations has put such environments at risk, we can no longer afford to let off-road vehicles tear up the dunes and kill wildlife merely for "fun." We now know that coastal dunes are fragile and home to snowy plovers and other endangered and declining species. We also recognize that there is demonstrable need for more pastoral, non-consumptive and non-destructive access to California's beautiful coast, particularly its unique dunes. The US Fish & Wildlife Service needs to implement stronger protections for nesting shorebirds, especially the snowy plovers, as well as declining coastal plant species. Catering to the loud complaints of ORV enthusiasts does not serve the larger public nor preserve the environment for future generations. The time has come to fully protect the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area.
50	Protecting these birds is the right thing to do, letting the orv's to continue killing these birds all for the fun of off roading is negligent. Killing for the sake of entertainment is ridiculous!
51	Some of us are VERY tired of our amazing area being used as an amusement park for sand jockeys from other parts of the state who don't care about OUR environment.
52	MUST We ALLOW this?? Man is ever encroaching on our animal's territory. We need to have some boundries and strong protections in this 21st century. We are taking away their forests, the waterways, the oceans, now the beaches. PLEASE do the honorable thing and leave a legacy of beauty not one of noise and destruction. Have integrity and do the right thing and help keep man away from these important nesting areas. We don't need vehicles running up and down our beaches anyway.
53	It is really stupid to allow vehicles to drive on the beaches. These areas are for our use, and not vehicular.
54	My letter is to call in you to respect what came here first, and just wishes to survive, not destroy, pollute, or run over another living thing for fun & profit.

	In my growing up & education (mostly public), I thought that was what government; group of representatives, was supposed to do for us...look out for living things.
55	As the former Chair of the California Coastal Commission, I oppose the current proposed action detailed in the federal register notice for several reasons. First, it calls for reducing protective fencing set aside for nesting birds in order to increase areas for off-road vehicles. This is unacceptable. The cages are too small as it is. The birds are precocious and therefore the young fledglings get killed by the vehicles as the birds leave the caged in areas. The areas where the nests are should be completely off limits to ORVs during nesting and fledging season. This is the only way to prevent death of the birds before they can fly. Your statistics show that the birds nest and fledge but few live to make it past that point, proving the need for limits on the ORV areas.
56	I have been going to Oceano all my long life. Surely we can find a way to protect the birds and plants and let the dune buggies have some space too? The dunes aren't popular only with the ORVers - Safe habitat is a life or death issue for the birds and plants.
57	I've watched as pristine desert lands are stripped of life for the sake of a small group of people wanting to drive their off road vehicles up and down ravines and hillsides. While fragile life forms are eliminated from the area. It's profoundly sad and disturbing. Fortunately, the protected areas are respected and patrolled for violations, with the approval of the vast majority of mature and sane people. Sometimes there just are not any do-overs and once these fragile areas are violated, they may never rebound and become essentially lifeless areas.
58	If there ever was a canary in a cage scenario, it's the disappearance of the plover. Death of the plover means death of our beaches. We simply must protect them from destruction by developers trying to make a buck at the expense of Nature.
59	I object to people with off-road vehicles inflicting harm and getting preferential consideration! I am worried about adequate protections for the imperiled plants and animals that live within the Oceano Dunes State Vehicular Recreation Area.
60	I say people can ride vehicles everywhere and need to be kept OUT OF HABITATS. TOO MANY ANIMALS are disappearing and they are priceless and irreplaceable
61	The Northern Rhino in Africa is going extinct. While you don't erect fences or drag you feet in regard to the Snowy plovers, they too are moving towards extinction while ORV traffic is allowed to pollute the air and kill the plovers. This issue is very important and must be addressed ASAP.
62	When will we put the needs of other species before our recreational activities.
63	Although I used to enjoy the dunes myself, I never knew that protections for wildlife were not in place.
64	Protect and preserve. Whether you are impacted or not, these birds are and it is our job to save them as well as their habitat. Losing one species can upset an entire eco system. Every one of us, animals, birds, reptiles, humans, play a part and the damage already done by humans is severe. Keep the earth balanced by helping those who cannot help themselves.
Other	Other comments: Commenters emphasize they are Californian, taxpayers, love plovers, former resident of Pismo, current residents, listing their background as biologists, or Audubon/SNPL/CLTE volunteers; stop the murder/carnage, love State Parks, this matter is of personal concern, , in disbelief ORVs are allowed on the beach; too many of our State's species are in peril of extinction; abbreviated expletives, do the right thing; these wildlife and plants need our protection

Appendix B: HCP Avoidance and Minimization Measures and CDPR Standard Project Requirements

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Oceano Dunes District HCP EIR
Appendix B: HCP Avoidance and Minimization Measures

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL	
Park Visitor Activities: Motorized Recreation **(CA-1)**	
Potential Effects: Adults/juveniles/chicks struck by vehicles; Breeding/foraging/roosting disturbance; Chicks separated from adult(s) and inadequately attended or exposed to predation/inclement weather; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Chicks/eggs abandoned when adults are disturbed, killed, or injured; Eggs crushed.	
Avoidance and Minimization Measures	
AMM 1	CDPR will continue to create educational content on the Oceano Dunes SVRA and Pismo State Beach websites that includes life history information and measures being taken to protect all HCP covered species found at the parks. Information can be updated as needed and visitors can find out what the parks are doing and what they can do to protect the covered species. Covered species information will continue to be included as part of ongoing interpretative programs as well.
AMM 2	Signs explaining SNPL natural history and protection measures in place in the HCP area will continue to be posted for information and education of visitors in the HCP area. Interpretive panels at beach access points (e.g., Sand Highway, Oso Flaco Lake, Pier Avenue, and Grand Avenue) and signs identifying closed areas will continue to be erected to increase public awareness of threats to nesting SNPL and to inform the public of the park's management efforts to protect special-status species. Information on SNPL will also continue to be posted on the Oceano Dunes SVRA and Pismo State Beach websites and social media accounts.
AMM 3	CDPR will continue to enforce resource protection regulations. All exclosed and symbolically fenced areas will continue to be posted with signs in English and Spanish. State Park rangers will continue to have the responsibility to enforce park regulations enacted to protect SNPL, including issuing citations for incidents of trespass into the area closed for nesting. In addition, resource staff monitors will continue to contact visitors who violate park regulations and, where appropriate, contact rangers who will issue a citation.
AMM 4	Posted speed limits will continue to be enforced throughout the HCP area.
AMM 5	CDPR will continue to fence off the Southern Exclosure and North Oso Flaco Exclosure during the breeding season (March 1 through September 30) to limit vehicle and human disturbance to SNPL nesting areas (and to protect SNPL from terrestrial predators). The 48-acre foredune area is closed to the public when SNPL nests or broods are present, including the shoreline and western portions of the alleyways between plots.
AMM 6	A buffer zone a minimum of 100 feet that prohibits camping or parking vehicles will be established outside and around areas closed for nesting (e.g., Southern Exclosure, single-nest exclosures, bumpouts) and for nests found in the 48-acre foredune or vegetation islands.
AMM 7	Habitat enhancement will continue to be avoided within 100 feet of the fence that borders the open riding area to discourage nesting near recreation that may cause disturbance to breeding birds.
AMM 8	Daily monitoring will continue to take place during and immediately after the SNPL breeding season (when seasonal exclosure fencing is removed) to enable better identification of potential human use-related threats to SNPL and to summon law enforcement assistance, if needed, to prevent or eliminate any human use-related threats to the species.
AMM 9	If a SNPL is found injured or dead, USFWS and CDFW will be notified within 24 hours of finding the bird, with details of the event sent in email within 3 working days.
AMM 10	The open riding area will continue to be inspected a minimum of once per day during the breeding season, and daily or as staff levels and weather conditions allow during the non-breeding season to identify SNPL individuals and nests. All SNPL tracks in the riding area will continue to be followed to check for potential nests, and any SNPL breeding activity in the riding area (e.g., scrapes or pairs observed) will continue to be monitored closely. These areas will continue to be mapped and rechecked during the day, and one person will continue to be assigned each morning to recheck any potential breeding areas. Any nest found will continue to be protected with a large single-nest (i.e., minimum 100-foot radius) exclosure to protect nests from people and predators, as determined to be necessary.
AMM 11	If an SNPL nest is established within the open riding area, but close to the existing Southern Exclosure (e.g., 150 feet away), fencing will continue to be erected as necessary to enlarge the exclosure to encompass the nest site (if topography allows and if safe public traffic patterns are available). Fencing will continue to be placed a minimum of 100 feet from the nest site.
AMM 12	When two or more SNPL nests in the open riding area are located within 200 feet of each other and are not adjacent to the Southern Exclosure, they will continue to be encompassed into a new large temporary exclosure if topography allows. Fencing for such temporary exclosures will continue to be maintained a minimum distance of 100 feet from the nest site.
AMM 13	If an SNPL nest is initiated inside the Southern Exclosure and close to the exclosure fence bordering the riding area, or inside any area closed to vehicles (e.g., vegetation island, 48-acre foredune), CDPR staff will continue to install additional fencing

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL	
	(i.e., "bumpout") to maintain a perimeter of a minimum of 100 feet from the open riding and camping area to the nest. These bumpouts will continue to be monitored regularly. If an incubating bird is disturbed by normal recreational activity, the bumpout will be increased in size, as needed. All nests are monitored for disturbance, and any nest that is disturbed by regular recreation activity may receive a bumpout. This additional fencing will continue to remain in place during the period when nests are active or chicks are found in this area. Once chicks move out of the area or reach fledge age, the bumpouts will be removed.
AMM 14	Circular nest exclosures will continue to be used, if deemed necessary by staff, for SNPL nest protection. These exclosures are constructed using 2-inch by 4-inch wire non-climb fence, and 0.5-inch by 0.5-inch mesh netting is placed on top. The exclosures are secured with metal posts. Circular exclosures have a diameter of 7 feet. When appropriate, they are buried 8 inches deep.
AMM 15	Mini exclosures measuring approximately 3 feet by 3 feet by 3 feet will continue to be used in the HCP area. These are constructed with 2-inch by 4-inch wire non-climb fence with a top of the same material. When appropriate, they are buried 4–8 inches deep. CDPR may use additional mini exclosures, experimenting with different size, orientation, and/or material as new information becomes available on mini exclosures from other sites.
AMM 16	At least one CDPR vehicle or trailer will continue to be available throughout the SNPL breeding season to carry all tools and equipment necessary to immediately construct a single-nest exclosure or bumpout.
AMM 17	Prior to a known nest hatching outside a seasonal exclosure or within an area open to motor vehicles (e.g., open riding area, vegetation islands), monitors will continue to oversee the erection of signs and/or temporary fencing to provide a safe passage until the brood reaches a non-vehicle use area of Oceano Dunes SVRA with a closed adjacent shoreline (i.e., Southern Exclosure). Fencing will extend to the surf line, if chick travel corridors establish that need. For nests hatching from areas outside but adjacent to the Southern Exclosure shoreline, fencing will be connected to the exclosure to allow for a contiguous temporary closed shoreline area. In addition, temporary small mesh fencing will be installed around the nest prior to hatching as necessary to protect chicks during the night. Qualified biologists/Natural Resource staff will continue to follow the broods if a brood is observed leaving the single-nest exclosure, to identify threats to brood movement or safety, redirect any vehicle or pedestrian traffic, and to obtain assistance as necessary from Oceano Dunes SVRA patrol staff. This additional fencing will continue to remain in place during the period when nests are hatching or chicks are present in the closed shoreline area. Once chicks move out of the area or reach fledge age, the fencing will be removed.
AMM 18	Should broods engage in foraging activity in the wrack line or other movement in the riding area, vehicle traffic flow will continue to be diverted or regulated to allow safe movement of the brood.
AMM 19	Monitors will continue to search for SNPL chicks in the riding area daily. During the chick-rearing period, each morning monitoring staff survey the open riding area surrounding the Southern Exclosure and other known SNPL nesting sites for chicks that have wandered out of protected fenced areas during the night. Monitors will continue to take appropriate action to protect and direct chicks into the non-vehicle area, as described in section 2.2.2.1.2.
AMM 20	CDPR will continue to place temporary 15-mph or other interpretive signs in areas where SNPL are known to congregate to alert drivers of their presence and to emphasize the shoreline speed limit. If possible, increased enforcement of speed limits will occur in areas where large numbers of SNPL are roosting.
AMM 21	Daily monitoring for the location of SNPL within the HCP area will continue to occur during the non-breeding season (October 1 through February 29), as staff levels and weather conditions allow. Monitoring will be increased if necessary (e.g., during storm events).
AMM 22	When, despite CDPR's efforts[1] to protect nests and/or move chicks back into the safety of the Southern Exclosure or other protected area, chicks and eggs are still at risk of being injured or killed by covered activities not related to covered species management (e.g., motorized recreation or new proposed activities), CDPR may capture up to 12 eggs (i.e., 4 nests) and/or 12 chicks (i.e., 4 broods) for captive rearing each year. In all cases, the need for captive care is determined by a USFWS-approved monitor and is used selectively. It is also dependent on an approved facility having the capacity to accept the eggs and/or chicks. If CDPR has captured 8 eggs or 8 chicks for captive rearing during one breeding season pursuant to this AMM, CDPR will contact the USFWS and discuss whether modified or additional AMMs (e.g., expanding the exclosure along the shoreline to provide additional protected foraging habitat, increasing monitoring, and/or increasing signage) are appropriate to

[1] At times, based on Senior Environmental Scientist professional discretion, CDPR may determine that SNPL eggs and/or chicks should be collected and transferred to an approved wildlife facility without an attempt to protect them on-site because protecting eggs and/or directing chicks back to the exclosure will not eliminate the threat of covered activities.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL	
	minimize risk of additional injury or mortality and ensure no more than 12 eggs and 12 chicks are captured for captive rearing[2]. Because this measure involves capture, which is considered take under FESA, it is included within CA-12b.
AMM 23	During the non-breeding season, if determined to be necessary to protect wintering SNPL, CDPR staff will temporarily close the beach within the HCP area, including the Arroyo Grande Creek crossing and the Grand Avenue park entrance, to motor vehicles during storm events with anticipated high tides and/or large surf until such conditions or hazards no longer exist. Beach conditions will be regularly monitored, and vehicle use will be allowed again only after CDPR staff has determined that it can occur without causing harm to SNPL, public safety is no longer an issue, and resource protection measures are no longer necessary.
AMM 24	CDPR peace officers will continue to provide focused enforcement of HCP area regulations (e.g., 15-mph speed limits). CDPR peace officers will continue to respond to requests by monitors for assistance with SNPL protection and security. Enforcement of laws affecting safety of SNPL will continue to be the highest non-emergency law enforcement priority.
AMM 25	During anticipated high visitor-use periods, such as Memorial Day Weekend, Labor Day Weekend, July 4 Weekend (or as determined by historic visitor attendance records), additional monitoring staff will continue to be employed and on site to monitor within the open riding area and identify threats to all life stages of SNPL from public recreational activity.
AMM 26	During non-holiday weekends (i.e., Friday and Saturday), a minimum of two CDPR peace officers will continue to be on duty and available from 0600 through 2400 each day to enforce regulations (e.g., 15-mph speed limit, dog leash laws, litter). During non-holiday weekdays (i.e., Sunday through Thursday), a minimum of two CDPR peace officers will continue to be on duty from 0700 through 2000 each day to enforce regulations.
AMM 27	As needed during holiday periods, staff will continue to focus specifically on monitoring the northern boundary of the closed protected shoreline (i.e., Southern Exclosure or 48-acre closed area when broods are present) to address any unauthorized entry during both daylight and evening hours.
AMM 28	During major holiday periods, CDPR peace officers will continue to be on duty 24 hours/day. From 0700 to 2000, a minimum of three Rangers will continue to be on duty. From 2000 to 0200, a minimum of two ranger/peace officers will continue to be on duty. During mid-day periods, when visitor attendance is highest, as many as four ranger/peace officers will continue to be on duty. Rangers/peace officers will enforce all regulations (e.g., 15-mph speed limit, dog leash laws, litter) in the HCP area.
AMM 29	CDPR will continue to use an adaptive management approach, where information and experience from previous breeding seasons is used to develop additional appropriate AMMs in subsequent seasons to minimize or eliminate impacts to SNPL from covered activities.
AMM 30	CDPR will continue to implement management measures and modify protocols in accordance with ongoing adaptive management and based on recommendations in annual monitoring reports.
AMM 31	Oceano Dunes SVRA will continue to participate in the Region 5 working group for SNPL recovery.
Potential Effects: Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash associated with recreational activity.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 32	Trash dumpsters will continue to be provided near the OHV staging area near Post 2. The location of the trash dumpsters will be changed, as necessary, to avoid disturbance to any nearby active SNPL nests.
AMM 33	CDPR will continue to use trash dumpsters/receptacles that are covered at the top and open from the side, which are designed to attract fewer predators such as gulls. CDPR will continue to implement options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites including using covered dumpsters with openings on the side.
AMM 34	CDPR will continue to remove or modify signs, fence posts, and other man-made features to eliminate perches for predators in areas where they could impact SNPL.
AMM 35	As appropriate and dictated by field conditions, CDPR will continue to have the option to install single-nest exclosures on SNPL nests in South Oso Flaco, the shoreline of the exclosures, or in other areas where they are deemed vulnerable to predators.
AMM 36	Seasonal exclosure and small single-nest exclosure fencing will continue to be buried, as feasible, to limit terrestrial predators from undermining the fence.
AMM 37	CDPR will continue to implement a predator management program to protect SNPL. In coordination with USFWS and if determined necessary, the predator management plan will be reviewed and updated to identify appropriate responses to new predator concerns.

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

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL	
AMM 38	When additional options for managing predators are needed, selective live-trapping and relocation of avian predators will continue to be conducted by authorized staff or subcontractor, and selective live-trapping and relocation or lethal removal of mammalian and avian predators will be conducted by USDA Wildlife Services (or other authorized staff or subcontractor).
AMM 39	CDPR staff will continue to remove animal carcasses in or adjacent to nesting and brood-rearing habitat, when feasible.
AMM 40	Where feasible, CDPR staff will continue to haze predators to flush them from sensitive areas. Hazing techniques used include firing a bird whistler device and approaching predators by foot or vehicle where appropriate. CDPR will continue to coordinate closely with predator specialists regarding the location of known or potential nests and brood activity, prior to the specialists conducting work.
AMM 41	All visitors will continue to be informed that they are to deposit their trash in dumpsters/receptacles provided. All campers will continue to be offered plastic garbage bags. All park staff will continue to carry trash bags in each vehicle and make them available to visitors for removing trash and litter from visitor use areas.
AMM 42	CDPR will continue to manually remove litter and garbage from beaches within existing budget and staff limitations.
Potential Effect: Breeding/foraging/roosting habitat quality reduced; Chicks, eggs, adults, juveniles potentially exposed to predation and/or inclement weather by altered habitat.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 43	CDPR will continue to place woodchips, large woody material, beach wrack, and native plants throughout the Southern Exclosure as necessary to serve as natural shelter. Woodchips will continue to be spread in patches in the 6, 7, and 8 Exclosures in areas of barren sand and over thinning woodchip patches remaining from the previous year(s) and beach wrack will be placed on the closed shoreline.
AMM 44	CDPR staff will continue to collect wrack in the open riding area and disperse it on the Southern Exclosure shoreline and on the 48-acre foredune shoreline if the area is used for nesting. In addition to providing cover, wrack on the shoreline provides a food resource supporting invertebrates, which in turn are prey for SNPL chicks, juveniles, and adults.
AMM 45	Talitrids (beach hoppers) will continue to be collected from outside the vehicle use area north of Grand Avenue or from South Oso Flaco. Staff will continue to inoculate the wrack addition areas of the Southern Exclosure shoreline with talitrids in order to establish a breeding population and increase SNPL food resources.
AMM 46	Habitat manipulation will occur in the Southern Exclosure to improve nesting habitat, including reducing vegetation density and removal of larger dune hummocks. The Superintendent may consider implementing additional habitat enhancement or manipulation measures if qualified biologist/Natural Resource staff determine such measures may aid in meeting the criteria laid out in biological objectives for SNPL (section 5.2.1). All work will be conducted during the non-breeding season. Qualified biologists/Natural Resource staff will conduct pre-activity surveys and at least one monitor will remain on-site when any heavy equipment is operating to ensure SNPL are avoided. If implemented, the value of any additional habitat enhancement or manipulation measure to nesting SNPL and CLTE will be studied to evaluate the measure's effectiveness at improving reproductive success and to determine whether and how the measure should be implemented in future seasons.
Park Visitor Activities: Camping **(CA-2)**	
Potential Effects: Similar to motorized recreation activities.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Visitor Activities: Pedestrian Activities **(CA-3)**	
Potential Effects: Breeding/foraging/roosting disturbance; Chicks and eggs picked up by visitors; Chicks/eggs abandoned when adults are disturbed, injured, or killed; Chicks separated from adult(s) and inadequately fed or exposed to predation/inclement weather; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 47	If an SNPL nest is established within 150 feet of a restroom facility, permanent restrooms buildings will continue to be closed to public use and wire fencing will continue to surround and isolate the restroom to prevent public use. The restroom alleyways between the 48-acre foredune plots will continue to be closed when nests or broods are present in these plots. In addition, chemical toilets will continue to be relocated to a minimum distance of 330 feet from any SNPL nest site, or other distance based on best available site-specific information and in consultation with Wildlife Agencies.
AMM 48	CDPR will continue to use symbolic fencing, consisting of a single strand of rope strung between posts with signage, at South Oso Flaco to protect upper beach and dune habitat for nesting.
AMM 49	In instances where pedestrian activity is observed disturbing SNPL, CDPR will continue to ask visitors to relocate farther away from nests or broods, and symbolic fencing at South Oso Flaco will continue to be adjusted as needed.
AMM 50	Symbolic fencing will continue to be erected at the terminus end of the Oso Flaco boardwalk trail at the beach to direct visitors to the wet sand area of the beach and away from potential SNPL nesting and chick-rearing areas.
AMM 51	As needed during daylight hours on major holiday periods, one CDPR peace officer will continue to be assigned to patrol the beach. Duties include patrolling outside the Southern Exclosure areas to ensure that no entry is made into the exclosure.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
Potential Effects: Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash associated with pedestrian activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Visitor Activities: Bicycling and Golfing **(CA-4)**
Potential Effects: Similar to pedestrian activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Visitor Activities: Fishing **(CA-5)**
Potential Effects: Similar to pedestrian activities; Adults/juveniles/chicks potentially entangled in discarded fishing line/hooks; Chicks, eggs, adults, juveniles potentially exposed to predation by discarded bait.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 52** If fishing activity is observed disturbing SNPL, visitors will be asked to relocate farther away from nests and fencing will be adjusted, as necessary. **AMM 53** Anglers will continue to be encouraged to properly dispose of fishing lines, hooks, and bait at various locations within the park where trash receptacles are located. CDPR staff will continue to manually remove liter and garbage from beaches.
Park Visitor Activities: Dog Walking **(CA-6)**
Potential Effects: Similar to pedestrian activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 54** Dogs within the HCP area will continue to be required to be on a leash no longer than 6 feet at all times and within the owner's complete control. **AMM 55** Dogs, other than service dogs, will continue to be banned in the Oso Flaco Area. **AMM 56** Waste bag locations will continue to be provided in the HCP area. **AMM 57** CDPR will continue to enforce dog leash and dog waste regulations, especially in areas where SNPL could be impacted. Resource staff monitors and/or rangers will continue to contact visitors violating park regulations and, where appropriate, rangers will continue to issue a citation.
Park Visitor Activities: Equestrian Recreation **(CA-7)**
Potential Effects: Similar to pedestrian activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 58** Horses will continue to be banned in the Oso Flaco Area.
Park Visitor Activities: Boating/Surfing **(CA-8)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Visitor Activities: Aerial/Wind-Driven Activities **(CA-9)**
Potential Effects: Foraging/breeding/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.** **AMM 59** Pursuant to Superintendent's Order (section 1.5.7), CDPR will continue to prohibit kite flying south of the Pier Avenue ramp during the SNPL breeding season (March 1 through September 30). **AMM 60** Open water kiteboarding/kite surfing, as well as launching and landing, will continue to be prohibited south of Post 6 and dry land launching and landing is only permitted between Pismo Creek and Pier Avenue. **AMM 61** All UAS operators will follow the current CDPR policies regarding UAS use. Pursuant to Superintendent's Order (section 1.5.7), CDPR will continue to prohibit public UAS use south of the Pier Avenue ramp during the SNPL and CLTE breeding season (March 1 through September 30). The Superintendent's Order will be adjusted to modify the timing and/or allowable locations for UAS use if staff observe SNPL routinely being flushed or otherwise harmed by public UAS use.
Park Visitor Activities: Holidays **(CA-10)**
Potential Effects: Effects for all covered activities on holidays are not expected to be different from those on non-holidays.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 62** Fireworks will continue to be prohibited in the HCP area. **AMM 63** CDPR staff or CDPR Volunteers will continue to educate and contact the public during the July 4 holiday period, focusing on areas near the Southern Exclosure to help stop the use of illegal fireworks over the area.
Park Visitor Activities: Special Events **(CA-11)**
Potential Effects: Effects based on the specific event activity(ies) permitted (see section 2.2.1.11).
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 64** All permits authorizing special events will continue to include AMMs to reduce disturbance to SNPL. Specific AMM recommendations will be based on past experience and dependent on the event location, timing, and potential to impact covered species.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
AMM 65 CDPR will continue to monitor special events to ensure participants follow SNPL protective measures.
AMM 66 All UAS operators will follow the current CDPR policies regarding UAS use.
AMM 67 Specific AMMs for UAS use will be included in special event permits that the UAS operators must obtain from CDPR. For example, non-CDPR UAS will not be allowed near nesting areas south of Post 4.5 during the breeding season and will be limited along the shoreline whenever necessary to avoid impacting SNPL. In addition, a trained SNPL monitor will accompany non-CDPR UAS operators at any time of year if it is determined there is potential to impact covered species. Stable flight paths are preferred to minimize the UAS being perceived as a predator.
Natural Resources Management: SNPL Fencing, Monitoring, and Management **(CA-12a and 12b)**
Potential Effects: Chicks crushed by vehicle; Breeding/foraging/roosting disturbance; Chicks separated from adult(s) and inadequately fed or exposed to predation/inclement weather; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Chicks/eggs abandoned when adults are disturbed, injured, or killed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 68 Seasonal exclosure and symbolic fencing will continue to be installed and completed by the March 1 start of the SNPL breeding season.
AMM 69 Monitors that enter and walk within the Exclosures and other areas with nests/broods will continue to be those individuals approved by the USFWS and/or listed on appropriate permits for the covered activities.
AMM 70 Single-nest or smaller exclosures for nests in the non-motorized area will continue to be erected when at least two eggs have been laid, or after nest is consistently incubated, to help reduce abandonment threat.
AMM 71 Fence maintenance and bumpout installation will continue to be timed to avoid high wind periods and other periods deemed critical for chick or nest survival, like extreme temperatures.
AMM 72 Monitors will continue to escort maintenance vehicles driving through the shoreline closed for nesting. All CDPR staff driving within the closed shoreline area will continue to be trained on how to operate a vehicle on the shoreline when SNPL broods are present to avoid collision or other harm, e.g., scanning in front of vehicle, driving where chicks are less likely to occur, avoiding wrack, and keeping speeds at or below 5 mph.
AMM 73 Monitors will continue to conduct surveys prior to conducting SNPL fence maintenance activities. If nesting SNPL could be impacted by activities, monitors will postpone maintenance, if appropriate. Monitors will remain on site during fence maintenance/ installation conducted by hand to monitor nearby nests and minimize disruption to SNPL.
AMM 74 If any chicks are flushed out of an exclosure, monitors will continue to follow and protect chicks until they move back inside the exclosure as described in section 2.2.2.1.2.
AMM 75 Camera training will continue to be given by staff who are permitted by USFWS to use nest monitoring cameras. Training will continue to occur outside the nesting area to include reading the instruction manual of each camera system, practicing efficient camera installation, and proper placement and concealment of cameras. After the initial training, the trainee will continue to accompany the permitted staff during camera installation on two or more active nests, as well as lead the camera installation while under the guidance of the permitted staff. Cameras will continue to only be placed if the wind speed is below 15 mph, the sand temperature is below 83°F, and if it is not raining.
AMM 76 Camera set-up will continue to be delayed if there has been a recent sighting of a predator.
AMM 77 Monitors will continue to evaluate whether a nest is a good candidate for predator monitoring prior to installing a camera. Cameras will not be placed in areas where they are readily visible to the public.
AMM 78 Cameras will continue to be installed when the nest has a complete clutch, and monitors will stay on site to ensure the adult returns to the nest, when possible. In some instances, as determined by experienced CDPR biologists, a camera needs to be installed prior to the nest having a complete clutch. For example, cameras may be temporarily used to determine nest abandonment.
AMM 79 Cameras will continue to be placed approximately 6 feet away from the selected nest, depending on topography and other factors.
AMM 80 Nests with cameras will be monitored closely using binoculars or a spotting scope, when visible, to determine if adults are attending nests and not disturbed by the camera. Monitors will continue to remove the cameras immediately if there is evidence that the placement and/or operation of the camera is jeopardizing the safety of individual nests, eggs, and young.
AMM 81 SNPL nest camera use will continue to follow protocols approved by USFWS.
Potential Effects: Chick and adult mortality/injury during banding; Chicks/eggs crushed by vehicle or monitor; Chicks flushed into the open riding area; Chicks injured or killed due to adult aggression from brood movement caused by monitoring activities; Adults killed or injured by striking protective fencing; Adults, juveniles, chicks, eggs depredated at single-nest exclosures.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 82 CDPR will continue to use appointed staff that have obtained the appropriate state and federal permits for the SNPL breeding season. The permitted staff will continue to be responsible for the banding of SNPL chicks, and if determined necessary, banding of SNPL adults. The permitted staff will continue to work in consultation with and under the direction of experienced Natural Resource staff.
AMM 83 Banding of newly hatched SNPL chicks will continue to follow protocols approved by USFWS. The permitted staff will continue to report all banding data and records per guidelines established by the USFWS.
AMM 84 To minimize the risk of additional injury or mortality associated with leg bands, monitors will continue to capture birds that show signs of leg injury due to bands as soon as possible. Leg injury will be assessed and, if necessary, the bird will be taken to a veterinarian for medical treatment or bands will be removed.
AMM 85 Monitors will continue to only enter and walk within the Exclosures and other areas with nests/broods during appropriate weather conditions (e.g., low to no wind, no rain, outside of periods of extreme temperatures). Monitors will also continue to survey for potential predators prior to entering the nesting areas and will not enter the exclosure until predators are absent from the area.
AMM 86 Monitors will continue to be aware of the location of nests, broods, and adults when monitoring within the Exclosures and other areas with nests/broods, and all efforts will continue to be made to minimize disturbance to reduce the likelihood of adults moving off the nest, broods moving into the territory of another nest, and/or chicks being separated from attending adults.
AMM 87 Monitors will continue to visually check the area under and surrounding any vehicle that has been idle near all nesting areas during the chick-rearing period to ensure SNPL chicks are not present underneath the vehicle.
AMM 88 The top of the Southern Exclosure fencing will continue to be lined with a strip of thick plastic fencing (orange silt construction fencing cut into approximately 1-foot sections), which will be placed along most of the western and northern fenced areas to increase the fence visibility to flying birds. If staff resources are available, some of the eastern fenceline and bumpout fencing will also be lined with this strip.
AMM 89 Monitors will continue to inspect the integrity of exclosures regularly.
AMM 90 Single-nest exclosures will continue to be monitored closely to identify if predators are keying in on them.
AMM 91 Monitors will continue to closely survey the east fence of the Southern Exclosure, and other nesting areas that may border the open riding area, when banding or other monitoring activities are taking place on foot inside the fenced area during the chick-rearing period. They will continue to take appropriate action to coax any SNPL chicks that move into the riding area back into the protected non-vehicle area and will ascertain if they remain there after the monitoring activities in the exclosure have ended.
AMM 92 CDPR will continue to salvage eggs and chicks as part of the ongoing covered species management program, as determined to be necessary by a USFWS-approved biologist, to be raised in captivity by an approved wildlife facility. Chicks will continue to be raised in a manner that does not imprint on humans and released back into the wild when fledged. Captive care will continue to only be used selectively and not as a substitute for responding to the primary causes of elevated egg or chick abandonment rates.
Natural Resources Management: Tidewater Goby and Salmonid Surveys **(CA-13)**
Potential Effects: Chicks/eggs crushed by vehicle or monitor; Breeding/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 93 Daily SNPL monitoring during the SNPL breeding season will continue to include areas where fisheries surveys would occur. Fisheries surveys will continue to be adjusted if daily SNPL monitoring determines that SNPL breeding would be affected, including postponing surveys if there is concern of disturbance to SNPL nests or broods.
AMM 94 Fisheries survey staff will continue to include personnel experienced with conducting fisheries surveys within SNPL habitat and may include permitted SNPL monitors.
Natural Resources Management: Herpetological Monitoring and Management **(CA-14)**
Potential Effects: Chicks/eggs crushed by vehicle or monitor; Breeding/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Natural Resources Management: Listed Plant Management Activities **(CA-15)**
Potential Effects: Chicks/eggs crushed by vehicle or monitor; Breeding/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 95 If surveys are necessary during the breeding season and in a known or potential nesting area, one or two experienced biologists will continue to conduct listed plant surveys. Established protocols for the surveys require that any biologist conducting the work be a skilled botanist with experience in identifying the target plant species or be accompanied by a botanist. The biologist must also be a skilled and USFWS-approved SNPL monitor or must be accompanied by a biologist with these qualifications.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
AMM 96 Prior to conducting botanical surveys, the team will continue to review records of all known SNPL nesting sites in the survey area. No surveys are conducted within 150 feet of known nesting sites until the nest fates are determined (i.e., hatch or fail), and the brood and attending adult are known to have left the area. No surveys or walking within sight of nests occurs for nests that are close to hatch or newly hatched.
AMM 97 Botanical surveys may be conducted in areas without known nests; however, the team will continue to follow existing nest search protocols to identify new nests, breeding behavior, and the presence of adults tending broods.
AMM 98 If new nests, breeding behavior, or adults tending broods are observed in an area during surveys, the team will continue to immediately leave the area until the nest fates are determined or breeding/brooding activity is no longer occurring in the area.
AMM 99 Botanical surveys will continue to take the minimum time necessary for data collection to avoid disturbance to breeding birds in the area. Botanical surveys will continue to take no longer than 15 minutes at each site within the breeding area.
AMM 100 All botanical surveys will continue to be conducted under similar constraints as nest search surveys including during appropriate weather conditions, wind conditions, times when predator activity is not occurring, and other precautions per SNPL monitoring protocol in the HCP area.
Natural Resources Management: Habitat Restoration Program **(CA-16)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 101** Invasive plant or animal control will continue to be conducted when SNPL are not observed to be present.
Natural Resources Management: WHPP Implementation **(CA-18)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Natural Resources Management: Water Quality Monitoring Projects **(CA-19)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Maintenance: General Facilities Maintenance **(CA-21)**
Potential Effects: Breeding/foraging/roosting disturbance; Chicks/eggs abandoned when adults are disturbed, injured, or killed; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Adults/juveniles/chicks struck by vehicles; Eggs crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.** **AMM 102** CDPR will continue to train park staff and "visiting rangers" annually, or as needed, to ensure that staff can do their jobs with minimal impact to SNPL. At a minimum, staff will continue to receive information about basic SNPL biology, listing status, and relevant park rules and regulations and how to respond to observed violations of park rules and regulations that protect SNPL. **AMM 103** All CDPR staff will continue to observe closures, speed limits, and other restrictions aimed at protecting SNPL, unless emergency conditions warrant otherwise. **AMM 104** CDPR monitors will continue to conduct surveys to ascertain the presence of SNPL nests, adults, and chicks within and adjacent to potential maintenance areas, if such activities must be carried out during the breeding season (March 1 through September 30) in and adjacent to areas where SNPL are potentially nesting, foraging, or roosting. If CDPR monitors find that the activities may impact, disturb, or result in take of adult birds, chicks, or eggs, the activities will be delayed until the monitor determines SNPL will not be impacted. **AMM 105** CDPR monitors will continue to evaluate the potential for maintenance activities that occur during the non-breeding season (October 1 through February 29) to impact or disturb non-breeding SNPL or to modify SNPL breeding habitat. Activities will continue to be modified, as necessary, to minimize disturbance or impacts to breeding habitat. **AMM 106** Mechanical trash removal will not occur in areas when any SNPL are present in the treatment area. **AMM 107** Mechanical trash removal will only occur above the high tide, avoid all wrack/surf cast kelp, avoid all live vegetation, and avoid lagoons and flowing creeks. **AMM 108** Equipment for trash removal will observe all speed limits and will not exceed 10 mph. **AMM 109** Mechanical trash removal will not be conducted within vegetated areas or within any fenced closed areas where known SNPL nesting occurs (such as the Southern Exclosure or 48-acre foredune area) during the breeding or non-breeding season.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
AMM 110 Qualified biologists/Natural Resource staff will inspect and approve the area subject to mechanical trash removal prior to each deployment. Qualified biologist/Natural Resource staff will remain on site or be immediately available for monitoring purposes. **AMM 111** In conjunction with mechanical trash removal, CDPR will implement a study to establish baseline conditions of invertebrate populations, including talitrids, and to determine the impact of mechanical trash removal on these populations. The study will, at a minimum, compare invertebrate abundance in mechanical trash removal areas to baseline conditions prior to the start of mechanical trash removal to areas where mechanical trash removal is absent. If CDPR finds a substantial decline in invertebrate numbers in mechanical trash removal areas, additional measures will be implemented (e.g., habitat enhancement measures, reduction in frequency of mechanical trash removal, and/or reduction in mechanical trash removal locations).
Potential Effects: Limited potential breeding habitat reduced by the footprint of vault toilets.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Maintenance: Trash Control **(CA-22)**
Potential Effects: Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Maintenance: Wind Fencing Installation, Maintenance, and Removal **(CA-23)**
Potential Effects: Foraging and roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Maintenance: Sand Ramp and other Vehicular Access Maintenance **(CA-24)**
Potential Effects: Foraging and roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 112** During the breeding season, the sand ramps will continue to be inspected a minimum of once per day to identify SNPL individuals and nests. This will continue to occur during the daily survey. During the non-breeding season, the sand ramps will continue to be regularly inspected for roosting activity. No work occurs if birds are roosting close to the work area until the birds leave the area on their own accord.
Park Maintenance: Perimeter and Vegetation Island Fence Installation, Maintenance, and Removal **(CA-27)**
Potential Effects: Foraging and roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate **AMM 113** Conduct pre-construction SNPL monitoring.
Park Maintenance: Cable Fence Maintenance and Replacement **(CA-28)**
Potential Effects: Foraging and roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate **AMM 114** Conduct pre-construction SNPL monitoring.
Park Maintenance: Heavy Equipment Response in all Areas of SVRA of Oceano Dunes District **(CA-29)**
Potential Effects: Similar to general facilities maintenance activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Park Maintenance: Minor Grading (less than 50 cubic yards) **(CA-30)**[3]
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Boardwalk and Other Pedestrian Access Maintenance **(CA-31)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Visitor Services: Ranger, Lifeguard, and Park Aide Patrols **(CA-32)**
Potential Effects: Similar to general facilities maintenance activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Visitor Services: Emergency Response **(CA-33)**
Potential Effects: Similar to general facilities maintenance activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.

[3] AMMs to reduce the effects of grading to maintain the seasonal exclosure are included in CA-12a: Installation and Maintenance of Western Snowy Plover and California Least Tern Protection Fence. AMMs to reduce the effects of grading to maintain the boundary fence are included in CA-28: Cable Fence Maintenance and Replacement.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
AMM 115 Emergency responders will continue to be informed of the locations of areas that are sensitive (e.g., Southern Exclosures, shoreline foraging/brooding areas), to the extent feasible. If possible, USFWS-approved biologists will continue to escort emergency vehicles into and out of areas that are sensitive. **AMM 116** Locations of non-breeding flocks of SNPL will continue to be identified and appropriate signage displayed to advise all visitors and emergency responders of the location of sensitive resource areas.
Visitor Services: Access by Non-CDPR Vehicles **(CA-34)**
Potential Effects: Adults/juveniles/chicks struck by vehicles; Foraging/roosting disturbance; Chicks/eggs abandoned when adults are disturbed, killed, or injured; Chicks separated from adult(s) and inadequately fed or exposed to predation/inclement weather; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Visitor Services: Beach Concessions **(CA-36)**
Potential Effects: Similar to access by non-CDPR vehicles.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 117** A focused training program will continue to be provided for all concessionaires and OHV rental employees each year. The training program will consist of, at a minimum, a description of SNPL and its life history and park rules and regulations protecting SNPL. Concessionaires and OHV rental employees will continue to be provided with digital resources consisting of photographs and covered species information. This information will continue to be provided to customers and other members of the public to encourage them to recognize and avoid covered species.
Other HCP Covered Activities: Motorized Vehicle Crossing of Creeks **(CA-40)**
Potential Effects: Adults/juveniles/chicks struck by vehicles; Nesting/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Other HCP Covered Activities: Pismo Creek Estuary Seasonal (floating) Bridge **(CA-41)**
Potential Effects: Breeding/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply as appropriate. **AMM 118** Bridge installation, removal, and use during the breeding season will need to follow AMMs, including pre-installation surveys and 100-foot minimum buffers from active nests, to ensure effects on nesting and chick rearing SNPL are minimal. The buffer will be increased (e.g., by adding a bumpout), as necessary, until monitors observe that nesting and chick rearing SNPL are no longer disturbed. During the non-breeding season, bridge installation and removal will occur after surveys have been done to ensure effects on foraging and roosting SNPL are minimal.
Other HCP Covered Activities: Replacement of the Safety and Education Center **(CA-43)**
Potential Effects: Chicks/eggs crushed by vehicle; Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Other HCP Covered Activities: Dust Control Activities **(CA-44)**
Potential Effects: Adults/juveniles/chicks struck by vehicles; Breeding/foraging/roosting disturbance; Eggs crushed; Chicks/eggs abandoned when adults are disturbed, killed, or injured; Chicks separated from adult(s) and inadequately fed or exposed to predation/inclement weather; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Adults, juveniles, chicks, eggs more susceptible to predation due to increased vegetation; Breeding/foraging/ roosting habitat altered.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 119** Exclosures will be managed to ensure the enclosed area retains the necessary physical and biological characteristics of primary habitat as defined in section 3.3.1.8 and as indicated by breeding productivity, including the breeding number and fledge rate targets in SNPL Objectives 1.1 and 1.2, respectively.
Other HCP Covered Activities: Cultural Resources Management **(CA-45)**
Potential Effects: Breeding/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Other HCP Covered Activities: Special Projects **(CA-49)**
Potential Effects: Breeding/foraging/roosting disturbance Breeding habitat reduced by footprint of small project.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Other HCP Covered Activities: Reduction of the Boneyard and 6 Exclosure **(CA-50)**
Potential Effects: Reduction in protected nesting habitat.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**
Other HCP Covered Activities: Use of Pesticides **(CA-51)**

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL
Potential Effects: Breeding/foraging/roosting disturbance; Exposure from contact with contaminated prey or vegetation; Exposure from contact with residues, inhalation of vapors.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.** **AMM 120** When pesticide application must occur near SNPL breeding habitat, work will continue to be conducted between October 1 and February 28 to avoid the breeding season. A qualified biologist/Natural Resource staff will continue to conduct a survey for SNPL 24 hours prior to the application and instruct the work crew on their identification and biology. If SNPL is observed, all work will be stopped immediately until the CDPR biologist arrives and assesses the situation to determine if the work can proceed. **AMM 121** Pesticides will continue to be applied when wind speed is below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side. **AMM 122** Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or the National Weather Service (NWS) forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application. **AMM 123** CDPR will continue to ensure that all workers are trained in the safe and effective use of pesticides in sensitive habitats. **AMM 124** CDPR will continue to ensure that trained resource personnel are present at all phases of the work to ensure that pesticide application activities do not result in impacts to covered species. **AMM 125** If pesticides are spilled, they will continue to be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and are familiar with the use of absorbent materials. Spills will continue to be cleaned up according to label instructions, and all equipment used to remove spills will continue to be properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements. **AMM 126** CDPR will continue to take the following steps when using herbicide: ● Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information. ● CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made. ● All pesticide applications will continue to be made according to the product label in accordance with regulations of the EPA, California Environmental Protection Agency (CalEPA), California Division of Occupational Safety and Health (Cal OSHA), DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.
Other HCP Covered Activities: CDPR UAS Use for Park Activities **(CA-52)**[4]
Potential Effects: Breeding/foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.** *Year-Round - All Flights* **AMM 127** UAS will be flown with remote control and a screen that shows battery life. The UAS will be equipped with software or other safeguard to ensure it will alert the operator when it reaches a minimum safe amount of battery life required for a return flight. **AMM 128** UAS operators will attend a formal site-specific training and achieve a Remote Pilot Certificate under Federal Aviation Administration (FAA) Small UAS Rule (Part 107) and be certified as a Pilot in Command prior to conducting solo flights. **AMM 129** CDPR staff operating UAS will be trained in the safe operation of UAS in the vicinity of nesting or roosting SNPL. Training will include safe practices for takeoff, landing, flights over birds (set flight path, no erratic path that could be mistaken for a predator), minimum height over birds, no turns over nests, preferred operation over waves, and other methods to reduce impacts to nesting or roosting birds. *Year-Round - Routine Flights* **AMM 130** UAS operators will have an established flight plan with a specific purpose determined following all FAA regulations. **AMM 131** UAS will be kept in view of the operator or Visual Observer(s) at all times. **AMM 132** Other than public safety or emergency law enforcement use, UAS operators will not conduct flights in the HCP area without approval from the qualified biologist/Natural Resource staff. **AMM 133** The flight plan will not include erratic flight patterns that could be interpreted as an avian predator by SNPL.

[4] AMMs for UAS use may be modified based on best available science and new information on the impacts of UAS use on wildlife.

Table B-1. Avoidance and Minimization Measures (AMMs) for SNPL	
Breeding Season - Routine Flights	
AMM 134	All flights within 328 feet of SNPL nesting or brood-rearing habitat will require a USFWS-approved monitor to pilot or assist with flight logistics and monitoring, regardless if SNPL are confirmed in the area prior to flight.
AMM 135	Prior to flying the UAS into or near (within 328 feet of) nesting or chick-rearing areas, the operator will follow all existing monitoring guidelines that have been established with USFWS.
AMM 136	UAS will not enter or fly within 328 feet of the SNPL nesting areas if the wind speed is above 15 mph or strong enough to move sand (or will be before or after completion of set up and exit from the nesting area), the sand temperature is 83°F, or if it is raining.
AMM 137	UAS flights will be initiated at least 328 feet from the closest known SNPL nest. The take-off and landing area will be clearly marked. If possible, take-off and landing areas will be out of direct sight from known nests.
AMM 138	UAS will only be deployed when a qualified biologist/Natural Resource staff is confident the activity will not jeopardize the safety of SNPL individuals, nests, eggs, and young.
AMM 139	Prior to every UAS flight, a qualified biologist/Natural Resource staff will scan the area for SNPL. If no birds are observed, the UAS flight can commence. The flight operations will be monitored, as appropriate. If a SNPL is observed in the area, it must be monitored by a qualified biologist/Natural Resource staff during the remainder of the flight. If substantial disturbance to SNPL is observed, they may recommend increasing the altitude of the UAS (but still remaining below 400 feet to follow FAA guidelines) and/or guiding the UAS to a safer area.
AMM 140	The UAS will be kept at least 100 feet above the ground at all times to reduce disturbance to nesting birds and below 400 feet to follow FAA guidelines.
Non-breeding Season – Routine Flights	
AMM 141	UAS will only be deployed when a qualified biologist/Natural Resource staff is confident that the activity will not jeopardize the safety of SNPL individuals.
AMM 142	Prior to every UAS flight within 1,000 feet of the shoreline, a qualified biologist/Natural Resource staff will scan the area for SNPL. If no birds are observed, the UAS flight can commence with or without monitoring, as appropriate. If an SNPL is observed in the area, it must be monitored by a qualified biologist/Natural Resource staff during the remainder of the flight. If substantial disturbance to SNPL is observed, they may recommend increasing the altitude of the UAS (but still remain below 400 feet to follow FAA guidelines) and/or guiding the UAS to a safer area.
AMM 143	Take-off and landing areas will be clearly marked in the field and should be out of sight from known individuals.
AMM 144	If SNPL are present, the UAS will fly at least 100 feet above ground at all times to reduce disturbance to SNPL and will be kept below 400 feet to follow FAA guidelines.
Year-Round – Law Enforcement/Public Safety Flights	
AMM 145	Law enforcement UAS training will include advanced training to minimize impacts during emergency response.
AMM 146	In the event of a law enforcement or public safety issue that requires a UAS to be flown in the vicinity of roosting or nesting SNPL, the operator will limit time that UAS are flown in the vicinity of nesting or roosting birds to the maximum extent practical.
AMM 147	If an emergency situation requires the UAS to cross over nesting areas, the UAS will be flown as close to the 400-foot FAA ceiling as possible, and transit the area quickly in a direct path, to avoid disturbance and limit its duration. A visual observer will always be present to aid in watching for other aircraft and birds.

Table B-2. Avoidance and Minimization Measures for CLTE	
Park Visitor Activities: Motorized Recreation **(CA-1)**	
Potential Effects: Adults/juveniles/chicks struck by vehicles; Breeding/roosting disturbance; Chicks separated from adult(s); Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Chicks/eggs abandoned when adults are disturbed, killed, or injured; Eggs crushed.	
AMM 1	CDPR will continue to create educational content on the Oceano Dunes SVRA and Pismo State Beach websites that includes life history information and measures being taken to protect all HCP covered species found at the parks. Information can be updated as needed and visitors can find out what the parks are doing and what they can do to protect the covered species. Covered species information will continue to be included as part of ongoing interpretative programs as well.
AMM 2	Signs explaining CLTE natural history and protection measures in place in the HCP area will continue to be posted for information and education of visitors in the HCP area. Interpretive panels at beach access points (e.g., Sand Highway, Oso Flaco Lake, Pier Avenue, and Grand Avenue) and signs identifying closed areas will continue to be erected to increase public awareness of threats to nesting CLTE and to inform the public of the park's management efforts to protect special-status species. Information on CLTE will also continue to be posted on the Oceano Dunes SVRA and Pismo State Beach websites.
AMM 3	CDPR will continue to enforce resource protection regulations. All enclosed areas will continue to be posted with signs in English and Spanish. Rangers will continue to have the responsibility to enforce park regulations enacted to protect CLTE, including issuing citations for incidents of trespass into the area closed for nesting. In addition, resource staff monitors will continue to contact visitors violating park regulations and, where appropriate, contact rangers who will continue to issue a citation.
AMM 4	Posted speed limits will continue to be enforced throughout the HCP area.
AMM 5	CDPR will continue to fence off the Southern Exclosure and North Oso Flaco Exclosure during the breeding season (March 1 through September 30) to limit vehicle and human disturbance to CLTE nesting areas (and to protect CLTE from terrestrial predators). The 48-acre foredune area is closed to the public when CLTE nests or broods are present.
AMM 6	A buffer zone a minimum of 100 feet that prohibits camping or parking vehicles will be established outside and around areas closed for nesting (e.g., Southern Exclosure, single-nest exclosures, bumpouts) and for nests found in the 48-acre foredune or vegetation islands.
AMM 7	Habitat enhancement will continue to be avoided within 100 feet of the fence that borders the open riding area to discourage nesting near recreation that may cause disturbance to breeding birds.
AMM 8	Daily monitoring will continue to take place during the CLTE breeding season to enable better identification of potential human use-related threats to CLTE and to summon law enforcement assistance, if needed, to prevent or eliminate any human use-related threats to the species.
AMM 9	If a CLTE is found injured or dead, CDFW and USFWS will be notified within 24 hours of finding the bird, with details of the event sent in email within 3 working days.
AMM 10	The open riding area will continue to be inspected a minimum of once per day during the breeding season to identify CLTE individuals and nests. All CLTE tracks in the riding area will continue to be followed to check for potential nests and any CLTE breeding activity in the riding area (e.g., scrapes, pairs observed, or nesting flight behavior) will continue to be monitored closely. These areas will continue to be mapped, and one person will be assigned each morning to recheck any potential breeding areas. Any nest found will continue to be immediately protected with a large single-nest (i.e., minimum 330-foot radius, or other distance based on best available site-specific information and in consultation with Wildlife Agencies) exclosure to protect nests from people and predators. If feasible and necessary, a travel corridor will be erected to provide a safe passage for chicks to the existing Southern Exclosure.
AMM 11	If a CLTE nest is established within the open riding area, but adjacent to the existing Southern Exclosure boundary (e.g., within or close to the minimum 330-foot buffer distance), fencing will continue to be erected to enlarge the exclosure to encompass the nest site (if topography allows and if safe public traffic patterns are available). Fencing will continue to be placed at a minimum of 330 feet away from the nest site, or other distance based on best available site-specific information and in consultation with Wildlife Agencies.
AMM 12	When two or more CLTE nests in the open riding area are located within 500 feet of each other and are 500 feet or more away from the seasonal exclosure, they will continue to be encompassed into a new large temporary exclosure if topography allows. Fencing for such new temporary exclosures will continue to be maintained a minimum distance of 330 feet from the nest site, or other distance based on best available site-specific information and in consultation with Wildlife Agencies.
AMM 13	If a CLTE nest is initiated inside the Southern Exclosure and close to the exclosure fence bordering the riding area, CDPR staff will continue to install additional fencing (i.e., "bumpout") to maintain a perimeter of a minimum of 330 feet from the open riding and camping area to the nest, or other distance based on best available site-specific information and in consultation with Wildlife Agencies. The public is excluded from these bumpouts, but USFWS-approved monitors still enter the buffer area as needed for monitoring. These bumpouts will continue to be monitored regularly. If an incubating bird is disturbed by normal recreational activity, the bumpout will be increased in size, as needed. All nests are monitored for disturbance, and any nest

Table B-2. Avoidance and Minimization Measures for CLTE	
	that is disturbed by regular recreation activity may receive a bumpout. This additional fencing will continue to remain in place during the period when nests are active or chicks are found in this area. Once chicks move out of the area or reach fledge age, the bumpouts will be removed.
AMM 14	At least one CDPR vehicle or trailer will continue to be available throughout the CLTE breeding season to carry all tools and equipment necessary to immediately construct a single-nest exclosure or bumpout.
AMM 15	A 330-foot minimum buffer, or other distance based on best available site-specific information and in consultation with Wildlife Agencies, from recreation activities will continue to be established around all CLTE nests. This distance will be increased if any take (e.g., mortality, injury) or CLTE reacting negatively to normal recreational activities is observed.
AMM 16	CLTE nests in single-nest exclosures or temporary exclosures will continue to have silt fencing or small mesh chick fencing installed within or attached to the lower portion of the exclosure fence prior to hatch to prevent CLTE chicks traveling into the open riding area.
AMM 17	CDPR monitors will continue to monitor the location of the CLTE night roost each night as viewing conditions allow and search during daily morning surveys for tracks and other signs of the night roost (e.g., roosting scrapes, fecal matter). CDPR has a protocol in place to protect the night roost if it is found in an area where birds would be vulnerable to recreation activity, including closing off the area with fencing and implementing a minimum 330-foot buffer around the night roost location, or other distance based on best available site-specific information and in consultation with Wildlife Agencies. Fencing will continue to be added as deemed necessary by experienced Natural Resource staff and fencing will continue to be removed once the night roost is no longer present. This protocol will continue to be implemented if this situation occurs.
AMM 18	CDPR peace officers will continue to provide focused enforcement of HCP area regulations (e.g., posted speed limits). CDPR peace officers will continue to respond to requests by monitors for assistance with CLTE protection and security. Enforcement of laws affecting safety of CLTE will continue to be the highest non-emergency law enforcement priority.
AMM 19	During anticipated high visitor-use periods, such as Memorial Day Weekend, Labor Day Weekend, July 4 Weekend (or as determined by historic visitor attendance records), additional monitoring staff will continue to be employed and on site to monitor within the open riding area and identify threats to all life stages of CLTE from public recreational activity.
AMM 20	During non-holiday weekends (i.e., Friday and Saturday), a minimum of two CDPR peace officers will continue to be on duty and available from 0600 through 2400 each day to enforce regulations (e.g., 15-mph speed limit, dog leash laws, litter). During non-holiday weekdays (i.e., Sunday through Thursday), a minimum of two CDPR peace officers will continue to be on duty from 0700 through 2000 each day to enforce regulations.
AMM 21	As needed during holiday periods, field staff will focus specifically on monitoring the northern boundary of the closed protected shoreline (i.e., Southern Exclosure or 48-acre closed area) to address any unauthorized entry during both daylight and evening hours.
AMM 22	During major holiday periods, CDPR peace officers will continue to be on duty and available to assist with protection of CLTE from 0630 to 2400, a minimum of 2 peace officers will be on duty. During mid-day periods, when visitor attendance is highest, as many as four ranger/peace officers will continue to be on duty. Rangers/peace officers will continue to enforce all regulations (e.g., trespass into exclosures,15-mph speed limit, dog leash laws, litter) in the HCP area.
AMM 23	CDPR will continue to use an adaptive management approach, where information and experience from previous breeding seasons is used to develop appropriate AMMs in subsequent seasons to minimize or eliminate impacts to CLTE from covered activities.
AMM 24	CDPR will continue to implement management measures and modify protocols in accordance with ongoing adaptive management and based on recommendations in annual monitoring reports.
Potential Effects: Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash associated with recreational activity.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 25	Trash dumpsters will continue to be provided near the OHV staging area near Post 2. The location of the trash dumpsters will be changed, as necessary, to avoid disturbance to any nearby active CLTE nests.
AMM 26	CDPR will continue to use trash dumpsters/receptacles that are covered at the top and open from the side, which are designed to attract fewer predators such as gulls. CDPR will continue to implement options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites including using covered dumpsters with openings on the side.
AMM 27	CDPR will continue to remove or modify signs, fence posts, and other human-made features to eliminate perches for predators in areas where they could impact CLTE.
AMM 28	CDPR will continue to implement a predator management program to protect CLTE. In coordination with USFWS and if determined necessary, the predator management plan will be reviewed and updated to identify appropriate responses to new predator concerns.

Table B-2. Avoidance and Minimization Measures for CLTE	
AMM 29	When additional options for managing predators are needed, selective live-trapping and relocation of avian predators will continue to be conducted by authorized staff or subcontractors, and selective live-trapping and relocation or lethal removal of mammalian and avian predators will continue to be conducted by USDA Wildlife Services (or other authorized subcontractor).
AMM 30	CDPR staff will continue to remove animal carcasses in or adjacent to nesting and chick-rearing habitat.
AMM 31	Where feasible, CDPR staff will continue to haze predators to flush them from sensitive areas. Hazing techniques used include firing a bird whistler device and approaching predators by foot or vehicle where appropriate. CDPR will continue to coordinate closely with predator specialists regarding the location of known or potential nests and chick activity, prior to the specialists conducting work.
AMM 32	All visitors will continue to be informed that they must deposit their trash in dumpsters/receptacles provided. All campers will be offered plastic garbage bags. All park staff will continue to carry trash bags in each vehicle and make them available to visitors for removing trash and litter from visitor use areas.
AMM 33	CDPR will continue to manually remove litter and garbage from beaches.
AMM 34	The seasonal exclosure fence will continue to be buried to limit terrestrial predators from undermining the fence.
Potential Effects: Breeding/foraging/roosting habitat quality reduced; Chicks, eggs, adults, juveniles potentially exposed to predation and/or inclement weather by altered habitat.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 35	CDPR will continue to place woodchips, large woody material, beach wrack, and native plants throughout the Southern Exclosure, where appropriate, to serve as natural shelter. Woodchips will be spread in patches in the 6, 7, and 8 Exclosures in areas of barren sand and over thinning woodchip patches remaining from the previous year(s) and beach wrack will be placed on the shoreline closed for nesting.
AMM 36	Driftwood will continue to be placed throughout the Southern Exclosure to serve as natural shelter for CLTE chicks.
AMM 37	Habitat manipulation will occur in the Southern Exclosure to improve nesting habitat, including reducing vegetation density and removal of larger dune hummocks. The Superintendent may consider implementing additional habitat enhancement or manipulation measures if qualified biologist/Natural Resource staff determine such measures may aid in meeting the criteria laid out in biological objectives for CLTE (section 5.2.2). All work will be conducted during the non-breeding season. If implemented, the value of any additional habitat enhancement or manipulation measure to nesting SNPL and CLTE will be studied to evaluate the measure's effectiveness at improving reproductive success and to determine whether and how the measure should be implemented in future seasons.
Park Visitor Activities: Camping **(CA-2)**	
Potential Effects: Similar to motorized recreation activities.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Visitor Activities: Pedestrian Activities **(CA-3)**	
Potential Effects: Breeding/foraging/roosting disturbance; Chicks and eggs picked up by visitors; Chicks/eggs abandoned when adults are disturbed, injured, or killed; Chicks separated from adult(s) and inadequately fed; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 38	If a CLTE nest is established within 330 feet of a restroom facility, permanent restrooms buildings will continue to be closed to public use and wire fencing will continue to surround and isolate the restroom to prevent public use. In addition, chemical toilets will continue to be relocated to a minimum distance of 330 feet from any CLTE nest site, or other distance based on best available site-specific information and in consultation with Wildlife Agencies.
AMM 39	If, in the opinion of the qualified biologist/Natural Resource staff or monitors, visitor activities are significantly disrupting CLTE behavior, the footbridge hand railing at Oso Flaco Lake will continue to be closed to public use, or types or public use on the boardwalk will continue to be temporarily prohibited until CLTE have left the lake area.
AMM 40	As needed during daylight hours on major holiday periods, one CDPR peace officer will continue to be assigned to patrol the beach. Duties include patrolling outside the Southern Exclosure areas to ensure that no entry is made into the exclosure.
Potential Effects: Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash associated with recreational activity.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Visitor Activities: Bicycling and Golfing **(CA-4)**	
Potential Effects: Similar to pedestrian activities.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Visitor Activities: Fishing **(CA-5)**	

Table B-2. Avoidance and Minimization Measures for CLTE	
Potential Effects: Similar to pedestrian activities, although disturbance can be for extended periods given the stationary nature of fishing, Adults/juveniles/chicks potentially entangled in discarded fishing line/hooks, Chicks, eggs, adults, juveniles potentially exposed to predation by discarded bait.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 41	If fishing activity is observed disturbing CLTE, visitors will be asked to relocate farther away from nests and fencing will be adjusted, as necessary.
AMM 42	Anglers will continue to be encouraged to properly dispose of fishing lines, hooks, and bait at various locations within the park where trash receptacles are located. CDPR staff will continue to manually remove litter and garbage from beaches.
Park Visitor Activities: Dog Walking **(CA-6)**	
Potential Effects: Similar to pedestrian activities.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 43	Dogs within the HCP area will continue to be required to be on a leash no longer than 6 feet at all times and within the owner's complete control.
AMM 44	Dogs, other than service dogs, will continue to be banned in the Oso Flaco area.
AMM 45	Waste bag locations will continue to be provided in the HCP area to encourage pet owners to pick up dog waste.
AMM 46	CDPR will continue to enforce dog leash and dog waste regulations, especially in areas where they could impact CLTE. Resource staff monitors and/or park rangers will continue to contact visitors violating park regulations and, where appropriate, rangers will continue to issue a citation.
Park Visitor Activities: Equestrian Recreation **(CA-7)**	
Potential Effects: Same as pedestrian activities.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 47	Horses will continue to be banned in the Oso Flaco area.
Park Visitor Activities: Boating/Surfing **(CA-8)**	
Potential Effects: Foraging/roosting disturbance	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Visitor Activities: Aerial/Wind-Driven Activities **(CA-9)**	
Potential Effects: Foraging/breeding/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**	
AMM 48	Pursuant to Superintendent's Order (section 1.5.7), CDPR will continue to prohibit kite flying south of the Pier Avenue ramp during the SNPL and CLTE breeding season (March 1 through September 30).
AMM 49	Open water kiteboarding/kite surfing, as well as launching and landing, will continue to be prohibited south of Post 6 and dry land launching and landing is only permitted between Pismo Creek and Pier Avenue.
AMM 50	All UAS operators will follow the current CDPR policies regarding UAS use. Pursuant to Superintendent's Order (section 1.5.7), CDPR will continue to prohibit public UAS use south of the Pier Avenue ramp during the SNPL and CLTE breeding season (March 1 through September 30).
Park Visitor Activities: Holidays **(CA-10)**	
Potential Effects: Effects for all covered activities on holidays are not expected to be different from those on non-holidays.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 51	Fireworks will continue to be prohibited in the HCP area.
AMM 52	CDPR staff or CDPR Volunteers will continue to educate and contact the public during the July 4 holiday period, focusing on areas near the Southern Exclosure to help prevent the use of illegal fireworks over the area.
Park Visitor Activities: Special Events **(CA-11)**	
Potential Effects: Effects based on the specific event activity(ies) permitted (see section 2.2.1.11).	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 53	All permits authorizing special events will continue to include AMMs to reduce disturbance to CLTE. Specific AMM recommendations will be based on past experience and dependent on the event location, timing, and potential to impact covered species.
AMM 54	CDPR will continue to monitor special events to ensure participants follow CLTE protective measures.
AMM 55	All UAS operators will follow the current CDPR policies regarding UAS use.
AMM 56	Specific AMMs for UAS use will be included in special event permits that the UAS operators must obtain from CDPR. For example, non-CDPR UAS will not be allowed near nesting areas south of Post 4.5 during the breeding season and will be limited whenever necessary to avoid impacting CLTE. In addition, a trained CLTE monitor will accompany non-CDPR UAS operators at any time of year if it is determined there is potential to impact covered species. Stable flight paths are preferred to minimize the UAS being perceived as a predator.

Table B-2. Avoidance and Minimization Measures for CLTE	
Natural Resources Management: CLTE Fencing, Monitoring, and Management **(CA-12a and 12b)**	
Potential Effects: Chicks crushed by vehicle; Breeding/foraging/roosting disturbance; Chicks separated from adult(s) and inadequately fed; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Chicks/eggs abandoned when adults are disturbed, injured, or killed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 57	The seasonal exclosure and symbolic fencing will continue to be installed prior to the March 1 start of the CLTE breeding season.
AMM 58	Monitors that enter and walk within the Exclosures and other areas with nests/broods will continue to be those individuals approved by the USFWS and listed on appropriate permits for the covered activities.
AMM 59	Single-nest exclosures (minimum 330-foot radius, or other distance based on best available site-specific information and in consultation with Wildlife Agencies) will continue to be erected for nests found in the riding area to help reduce abandonment threat.
AMM 60	Fence maintenance and bumpout installation will continue to be timed to avoid high wind periods and other periods deemed critical for chick or nest survival like extreme temperatures.
AMM 61	Monitors will continue to escort maintenance vehicles driving through the shoreline closed for nesting. All CDPR staff driving within the closed shoreline area will continue to be trained on how to operate a vehicle on the shoreline when CLTE broods are present to avoid collision or other harm, e.g., scanning in front of vehicle, driving where chicks are less likely to occur, avoiding wrack, and keeping speeds at or below 5 mph.
AMM 62	Monitors will continue to conduct surveys prior to conducting CLTE fence maintenance activities. If nesting CLTE could be impacted by activities, monitors will postpone maintenance, if appropriate. Monitors will continue to remain on site during fence maintenance/ installation activities conducted by hand to monitor nearby nests and minimize disruption to CLTE.
AMM 63	Monitors will continue to remain on site during fence installation to attempt to reduce disturbance that will result in chicks leaving the Southern Exclosure. If any chicks are flushed toward the exclosure boundary or into the open riding area, monitors will continue to follow and protect chicks to keep them in the exclosure and/or until they move back inside the exclosure.
AMM 64	Camera training will continue to be given by staff who are permitted by USFWS to use nest monitoring cameras. Training will continue to occur outside the nesting area and include reading the instruction manual of each camera system, practicing efficient camera installation, and proper placement and concealing of cameras. After the initial training, the trainee will continue to accompany the permitted staff during camera installation on two or more active nests, as well as lead the camera installation while under the guidance of the permitted staff.
AMM 65	Cameras will continue to only be placed if the wind speed is below 15 mph, the sand temperature is below 83°F, and if it is not raining.
AMM 66	Camera set-up will continue to be delayed if there has been a recent sighting of a predator.
AMM 67	Monitors will continue to evaluate whether a nest is a good candidate for predator monitoring prior to installing cameras. Cameras will not be placed in areas where they are readily visible to the public.
AMM 68	Cameras will continue to be installed when the nest has a complete clutch and monitors will stay on site to ensure the adult returns to the nest, when possible. In some instances, as determined by experienced CDPR biologists, a camera needs to be installed prior to the nest having a complete clutch. For example, cameras may be temporarily used to determine nest abandonment.
AMM 69	Trail cameras will continue to be placed approximately 6 feet away from the selected nest, depending on topography and other factors.
AMM 70	Monitors will continue to check nests with cameras daily, using binoculars or a spotting scope to ensure the adult is present and not disturbed by the camera. Monitors will continue to remove the cameras immediately if there is evidence that the placement and/or operation of the camera is jeopardizing the safety of individual nests, eggs, and young.
AMM 71	CLTE nest camera use will continue to follow protocols approved by USFWS.
Potential Effects: Chick mortality/injury during banding; Chicks/eggs crushed by vehicle or monitor; Chicks flushed into the open riding area; Adults killed or injured by striking protective fencing.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 72	CDPR will continue to use appointed staff that have obtained the appropriate state and federal permits for the CLTE breeding season. The permitted staff will continue to be responsible for the banding of CLTE chicks. The permitted staff will continue to work in consultation with and under the direction of the Natural Resource staff. The banding of newly hatched CLTE chicks will continue to follow protocols approved by USFWS and CDFW. The permitted staff will continue to report all banding data and records per guidelines established by the USFWS.
AMM 73	Monitors will continue to only enter and walk within the Southern exclosure and other areas with nests/chicks during appropriate weather conditions (e.g., low to no wind, no rain, outside periods of extreme temperatures). Monitors will also

Table B-2. Avoidance and Minimization Measures for CLTE	
	continue to survey for potential predators prior to entering nesting areas and will not enter the area until predators are absent from the area.
AMM 74	Monitors will continue to be aware of the location of nests, chicks, and adults when monitoring within the Southern Exclosure and other areas with nests/chicks, and all efforts will continue to be made to minimize disturbance to reduce the likelihood of adults moving off the nest, chicks moving into the territory of another nest, and/or chicks moving into the open riding area. If any chicks are flushed toward the exclosure boundary or out of the exclosure, monitors will continue to follow and protect chicks to keep them in the exclosure and/or until they move back inside the exclosure.
AMM 75	Monitors will continue to visually check the area under and surrounding any vehicle that has been idle near all nesting areas during the chick-rearing period and in the open riding area to ensure CLTE chicks are not present underneath the vehicle.
AMM 76	The top of the Southern Exclosure fencing will continue to be lined with a strip of thick plastic fencing (orange silt construction fencing cut into approximately 1-foot sections), which will be placed along most of the western and northern fenced areas to increase the fence visibility to flying birds. If staff resources are available, some of the eastern fenceline and bumpout fencing will also be lined with this strip.
AMM 77	Monitors will continue to inspect the integrity of the exclosures regularly.
AMM 78	Monitors will continue to closely survey the east fence of the Southern Exclosure, and other nesting areas that may border the open riding area, when banding or other monitoring activities are taking place on foot inside the fenced area during the chick-rearing period. Any CLTE chicks that move into the riding area will continue to be monitored until they are safely within the protected non-vehicle area and no longer subject to disturbance.
Natural Resources Management: Tidewater Goby and Salmonid Surveys **(CA-13)**	
Potential Effects: Foraging/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 79	Daily CLTE monitoring during the CLTE breeding season will continue to include areas where fisheries surveys would occur. Fisheries surveys will continue to be adjusted if daily CLTE monitoring determines CLTE foraging and/or breeding would be affected, including postponing surveys if there is a concern of disturbance to CLTE.
AMM 80	Fisheries survey staff will continue to include personnel experienced with conducting fisheries surveys within CLTE habitat and may include permitted CLTE monitors.
Natural Resources Management: Herpetological Monitoring and Management **(CA-14)**	
Potential Effects: Foraging/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 81	A qualified biologist/Natural Resource staff will continue to survey during the breeding season for foraging or roosting CLTE prior to activities. If foraging or roosting CLTE are observed, activities will be delayed if there is a concern of disturbance to CLTE.
Natural Resources Management: Listed Plant Management Activities **(CA-15)**	
Potential Effects: Chicks/eggs crushed by vehicle or monitor; Breeding/foraging/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 82	When surveys are necessary during the breeding season and in a known or potential nesting area, one or two experienced biologists will continue to conduct listed plant surveys. Established protocols for the surveys require that any biologist conducting the work be a skilled botanist with experience in identifying the target plant species or be accompanied by a botanist. The biologist must also be a skilled and USFWS-approved CLTE monitor or be accompanied by a biologist with these qualifications.
AMM 83	Prior to conducting botanical surveys, the team will review records of all known CLTE nesting sites in the survey area. No surveys are conducted within 330 feet of known nesting sites until the nest fates are determined (i.e., hatch or fail), and the chicks and attending adult is known to no longer be in the area. No surveys or walking within sight of nests occurs for nests that are close to hatch or newly hatched.
AMM 84	Botanical surveys may be conducted in areas without known nests; however, the team will continue to follow existing nest search protocols to identify new nests, breeding behavior, and the presence of adults tending chicks.
AMM 85	If new nests, breeding behavior, or adults tending chicks are observed in an area during surveys, the team will continue to immediately leave the area until the nest fates are determined or breeding/ chick-rearing activity is no longer occurring in the area.
AMM 86	Botanical surveys will continue to take the minimum time necessary for data collection to avoid disturbance to breeding birds in the area. Botanical surveys will continue to take no longer than 15 minutes at each site with a known population.
AMM 87	All botanical surveys will continue to be conducted under similar constraints as nest search surveys including during appropriate weather conditions, wind conditions, times when predator activity is not occurring, and other precautions per CLTE monitoring protocol in the HCP area.
Natural Resources Management: Habitat Restoration Program **(CA-16)**	

Table B-2. Avoidance and Minimization Measures for CLTE
Potential Effects: Roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: **AMM 88** Invasive plant or animal control will continue to be conducted when CLTE are not observed to be present.
Natural Resources Management: WHPP Implementation **(CA-18)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Natural Resources Management: Water Quality Monitoring Projects **(CA-19)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: General Facilities Maintenance **(CA-21)**
Potential Effects: Breeding/foraging/roosting disturbance; Chicks/eggs abandoned when adults are disturbed, injured, or killed; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Adults/juveniles/chicks struck by vehicles; Eggs crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 89** CDPR will continue to train park staff and "visiting rangers" annually, or as needed, to ensure that staff are able to do their jobs with minimal impact to CLTE. At a minimum, staff will continue to receive information about basic CLTE biology, listing status, and relevant park rules and regulations and how to respond to observed violations of park rules and regulations that protect CLTE. **AMM 90** All CDPR staff will continue to observe closures, speed limits, and other restrictions aimed at protecting CLTE, unless emergency conditions warrant otherwise. **AMM 91** CDPR monitors will continue to conduct surveys to ascertain the presence of CLTE nests, adults, and chicks within and adjacent to potential maintenance areas, if such activities must be carried out during the breeding season (March 1 through September 30) in and adjacent to areas where CLTE are potentially nesting, foraging, or roosting. If CDPR monitors finds that the activities may impact, disturb, or result in take of adult birds, chicks, or eggs, the activities will continue to be delayed until the monitor determines CLTE will not be impacted. **AMM 92** Mechanical trash removal will not occur in areas when any CLTE are present in the treatment area. **AMM 93** Mechanical trash removal will only occur above the high tide, avoid all wrack/surf cast kelp, avoid all live vegetation, and avoid lagoons and flowing creeks. **AMM 94** Equipment for trash removal will observe all speed limits and will not exceed 10 mph. **AMM 95** Mechanical trash removal will not be conducted within vegetated areas or within any fenced closed areas where known CLTE nesting occurs (such as the Southern Exclosure or any nest buffer). **AMM 96** Qualified biologists/Natural Resource staff will inspect and approve the area subject to mechanical trash removal prior to each deployment. Qualified biologists/Natural Resource staff will remain on site or be immediately available for monitoring purposes.
Potential Effects: Limited potential breeding habitat reduced by the footprint of vault toilets.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Trash Control **(CA-22)**
Potential Effects: Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Wind Fencing Installation, Maintenance, and Removal **(CA-23)**
Potential Effects: Roosting/breeding disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Sand Ramp and other Vehicular Access Maintenance **(CA-24)**
Potential Effects: Roosting/breeding disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 97** During the breeding season, the sand ramps will continue to be inspected a minimum of once per day to identify CLTE nests. This will continue to occur during the daily survey.
Park Maintenance: Routine Riparian Maintenance **(CA-26)**
Potential Effects: Foraging/roosting disturbance.

Table B-2. Avoidance and Minimization Measures for CLTE
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 98** CLTE will continue to be protected from harm during maintenance activities conducted at the Oceano Lagoon, Pismo Lake, and Oso Flaco Lake through monitoring of the treatment activity by qualified biologists/Natural Resource staff. If any activities are scheduled when CLTE are known to be present (generally between April 15 and September 15) qualified biologists/Natural Resource staff will continue to be on site during activities taking place at these locations. If CLTE are not foraging nearby or biologists observing CLTE foraging activity determine that CLTE will not be disturbed by the activities, it may proceed as planned. However, if CLTE are present and have the potential to be disturbed, the biologist will continue to direct activities to stop within 250 feet of the bird until it leaves on its own accord.
Park Maintenance: Perimeter and Vegetation Island Fence Installation, Maintenance, and Removal **(CA-27)**
Potential Effects: Foraging/roosting disturbance; Nest disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Heavy Equipment Response in all Areas of SVRA of Oceano Dunes District **(CA-29)**
Potential Effects: Similar to general facilities maintenance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Minor Grading (less than 50 cubic yards) **(CA-30)**[5]
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Boardwalk and Other Pedestrian Access Maintenance **(CA-31)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Visitor Services: Ranger, Lifeguard, and Park Aide Patrols **(CA-32)**
Potential Effects: Similar to general facilities maintenance activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Visitor Services: Emergency Response **(CA-33)**
Potential Effects: Similar to general facilities maintenance activities.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 99** Emergency responders will continue to be informed of the locations of areas that are sensitive (e.g., Southern Exclosure, roosting areas), to the extent feasible. If possible, USFWS-approved biologists will escort emergency vehicles into and out of areas that are sensitive.
Visitor Services: Access by Non-CDPR Vehicles **(CA-34)**
Potential Effects: Adults/juveniles/chicks struck by vehicles; Foraging/roosting disturbance; Chicks/eggs abandoned when adults are disturbed, killed, or injured; Chicks separated from adult(s) and inadequately fed ; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed Chicks, eggs, adults, juveniles potentially exposed to predation by increased trash.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Visitor Services: Beach Concessions **(CA-36)**
Potential Effects: Similar to access by non-CDPR vehicles.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 100** A focused training program will continue to be provided for all concessionaires and OHV rental employees each year. The training program will consist of, at a minimum, a description of CLTE life history and park rules and regulations protecting CLTE. Concessionaires and OHV rental employees will continue to be provided with digital resources consisting of photographs and covered species information. This information will continue to be provided to customers and other members of the public to encourage them to recognize and avoid covered species.
Visitor Services: Natural History and Interpretation Programs **(CA-39)**
Potential Effects: Foraging/roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 101** CDPR will continue to hold large group natural history and interpretation programs at Oso Flaco Lake when CLTE are not present or modify the program by observing CLTE behavior to avoid significant disturbance.
Other HCP Covered Activities: Motorized Vehicle Crossing of Creeks **(CA-40)**
Potential Effects: Adults/juveniles/chicks struck by vehicles; Roosting disturbance.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.

[5] AMMs to reduce the effects of grading to maintain the seasonal exclosure are included in CA-12a: Installation and Maintenance of NPL and CLTE Protection Fence. AMMs to reduce the effects of grading to maintain the boundary fence are included in CA-28: Cable Fence Maintenance and Replacement.

Table B-2. Avoidance and Minimization Measures for CLTE	
Other HCP Covered Activities: Pismo Creek Estuary Seasonal (floating) Bridge **(CA-41)**	
Potential Effects: Foraging/roosting disturbance.	
AMM 102	If, in the opinion of the qualified biologists/Natural Resource staff or monitors, visitor activities are substantially disrupting CLTE foraging and/or roosting behavior, the bridge will be closed to public use until the birds have left the area.
Other HCP Covered Activities: Replacement of the Safety and Education Center **(CA-43)**	
Potential Effects: Chicks/eggs crushed by vehicle.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**	
Other HCP Covered Activities: Dust Control Activities **(CA-44)**	
Potential Effects: Adults/juveniles/chicks struck by vehicles; Breeding/foraging/roosting disturbance; Eggs crushed; Chicks/eggs abandoned when adults are disturbed, killed, or injured; Chicks separated from adult(s) and inadequately fed; Eggs buried by sand, exposed to predation, or not properly incubated when adults are disturbed; Adults, juveniles, chicks, eggs more susceptible to predation due to increased vegetation; Breeding/foraging/ roosting habitat altered.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate	
AMM 103	Manage Exclosures to ensure the enclosed area retains the necessary physical and biological characteristics of primary habitat as defined in sections 3.3.1.8 and 3.3.2.8 and as indicated by breeding productivity, including the breeding pair number and fledgling targets in CLTE Objectives 1.1 and 1.2, respectively.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Cultural Resources Management **(CA-45)**	
Potential Effects: Breeding/foraging/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Oso Flaco Lake Boardwalk Replacement **(CA-48)**	
Potential Effects: Foraging/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 104	As feasible, boardwalk construction activities will be scheduled when CLTE are unlikely to be present (generally mid-September to mid-April).
AMM 105	If boardwalk replacement activities are scheduled when CLTE are known to be present, qualified biologists/Natural Resource staff will monitor construction activities. If CLTE are not foraging nearby or biologists observing CLTE foraging activity determine that CLTE will not be disturbed by the activities, work may proceed as planned. However, if CLTE are present and has the potential to be disturbed, the qualified biologist/Natural Resource staff will continue to direct activities within 250 feet of the CLTE to stop until it leaves on its own accord.
Other HCP Covered Activities: Special Projects **(CA-49)**	
Potential Effects: Breeding/foraging/roosting disturbance; Breeding habitat reduced by footprint of small project.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Reduction of the Boneyard and 6 Exclosures **(CA-50)**	
Potential Effects: Reduction in protected nesting habitat .	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Use of Pesticides **(CA-51)**	
Potential Effects: Breeding/foraging/roosting disturbance; Exposure from contact with contaminated prey or vegetation; Exposure from contact with residues, inhalation of vapors.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 106	When pesticide application must occur near CLTE breeding habitat, work will continue to be conducted between October 1 and February 28 to avoid the SNPL and CLTE breeding season.
AMM 107	Pesticides will continue to be applied when wind speeds are below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side.
AMM 108	Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or NWS forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application.
AMM 109	CDPR will continue to ensure that all workers are trained in the safe and effective use of pesticides in sensitive habitats.
AMM 110	CDPR will continue to ensure that trained resource personnel are present at all phases of the work to ensure that pesticide application activities do not result in impacts to covered species.
AMM 111	If pesticides are spilled, they will continue to be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and are familiar with the use of absorbent materials. Spills will continue to be cleaned up according to label instructions, and all equipment used to remove spills will be

Table B-2. Avoidance and Minimization Measures for CLTE	
	properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements.
AMM 112	CDPR will continue to take the following steps when using herbicide: ● Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information. ● CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made. ● All herbicide applications will continue to be made according to the product label in accordance with regulations of the EPA, CalEPA, Cal OSHA, DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.
Other HCP Covered Activities: CDPR UAS Use for Park Activities **(CA-52)**	
Potential Effects: Breeding/foraging/roosting disturbance.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**	
Breeding Season - All Flights	
AMM 113	UAS will be flown with remote control and a screen that shows battery life. The UAS will be equipped with software or other safeguard to ensure it will alert the operator when it reaches a minimum safe amount of battery life required for a return flight.
AMM 114	UAS operators will attend formal site-specific training or achieve a Remote Pilot Certificate under the FAA's Small UAS Rule (Part 107) and be certified as a Pilot in Command prior to conducting solo flights.
AMM 115	CDPR staff operating UAS will be trained in the safe operation of UAS in the vicinity of nesting or roosting CLTE. Training will include safe practices for takeoff, landing, flights over birds (set flight path, no erratic path that could be mistaken for a predator), minimum height over birds, no turns over nests, preferred operation over waves, and other methods to reduce impacts to nesting or roosting birds.
Breeding Season - Routine Flights	
AMM 116	UAS operators will have an established flight plan with a specific purpose determined following all FAA regulations.
AMM 117	UAS will be kept in view of the operator or Visual Observer(s) at all times.
AMM 118	Other than public safety or emergency law enforcement use, UAS operators will not conduct flights in the HCP area without approval from the qualified biologist/Natural Resource staff.
AMM 119	The flight plan will not include erratic flight patterns that could be interpreted as an avian predator by CLTE.
AMM 120	All flights within 328 feet of CLTE nesting or chick-rearing habitat will require a USFWS-approved monitor to pilot or assist with flight logistics and monitoring, regardless if CLTE are confirmed in the area prior to flight.
AMM 121	Prior to flying the UAS into or near (within 328 feet of) nesting or chick-rearing areas, the operator will follow all existing monitoring guidelines that have been established with USFWS.
AMM 122	UAS will not enter or fly within 328 feet of the CLTE nesting areas if the wind speed is above 15 mph or strong enough to move sand (or will be before or after completion of set up and exit from the nesting area), the sand temperature is 83°F, or if it is raining.
AMM 123	UAS flights will be initiated at least 328 feet from the closest known CLTE nest. The take-off and landing area will be clearly marked. If possible, take-off and landing areas will be out of direct sight from known nests.
AMM 124	UAS will only be deployed when a qualified biologist/Natural Resource staff is confident the activity will not jeopardize the safety of CLTE individuals, nests, eggs, and young.
AMM 125	Prior to every UAS flight, a qualified biologist/Natural Resource staff will scan the area for CLTE. If no birds are observed, the UAS flight can commence. The flight operations will be monitored, as appropriate. If a CLTE is observed in the area, it must be monitored by a qualified biologist/Natural Resource staff during the remainder of the flight. If substantial disturbance to a CLTE is observed, they may recommend increasing the altitude of the UAS (but still remain below 400 feet to follow FAA guidelines) and/or guiding the UAS to a safer area.
AMM 126	When CLTE are present in the area of interest, the UAS will fly at the highest possible altitude to collect the necessary data. If any CLTE show an inclination to mob, the UAS will be directed upward (but still below the FAA ceiling of 400 feet) and quickly away from the incoming CLTE. Until a qualified biologist/Natural Resource staff deems the UAS is not a threat to the colony the flight will be aborted.
AMM 127	The UAS will be kept at least 100 feet above the ground at all times to reduce disturbance to nesting birds and below 400 feet to follow FAA guidelines.
Breeding Season – Law Enforcement/Public Safety Flights	
AMM 128	Law enforcement UAS training will include advanced training to minimize impacts during emergency response.

Table B-2. Avoidance and Minimization Measures for CLTE	
AMM 129	In the event of a law enforcement or public safety issue that requires a UAS to be flown in the vicinity of roosting or nesting CLTE, the operator will limit time that UAS are flown in the vicinity of nesting or roosting birds to the maximum extent practical.
AMM 130	If an emergency situation requires the UAS to cross over nesting areas, the UAS will be flown as close to the 400-foot FAA ceiling as possible, and transit the area quickly in a direct path, to avoid disturbance and limit its duration. Care will be taken to keep any UAS away from CLTE nesting colony, as their mobbing behavior puts them in danger. A visual observer will always be present to aid in watching for other aircraft and birds.

Table B-3. Avoidance and Minimization Measures for SWPT

General AMMs

AMM 1 CDPR will continue to provide educational content on the Oceano Dunes SVRA and Pismo State Beach websites and social media. Content may include life history information, measures being taken to protect all HCP covered species found at the parks, and the importance of not touching or disturbing covered species. Information will be updated as needed and visitors can visit campground kiosks or interpretive events for additional information such as what they can do to protect the covered species. Covered species information will also be included as part of ongoing interpretative programs.

AMM 2 Posted speed limits will continue to be enforced throughout the HCP area.

AMM 3 Any time CDPR staff note a SWPT that is in harm's way (for example, found on the beach, on a roadway, in a pedestrian path, etc.), that individual may be captured and relocated by a qualified biologist/Natural Resource staff to suitable habitat within the HCP area.

AMM 4 Ground disturbing activities in HCP covered lands, including maintenance activities at the golf course or campgrounds, in known or likely SWPT habitat, will be timed to avoid sensitive life stages including nesting and aestivation periods. As determined by a qualified biologist/Natural Resource staff, pre-activity surveys will be conducted where activities may pose a higher risk due to timing, location, or intensity of activity. If any SWPT are found, activities will be adjusted or postponed until the qualified staff relocates the individual(s) out of harm's way or until they determine the project can proceed with minimal risk to the safety of the individual SWPT or nests. They may also employ protective fencing, rescheduling work times or locations, or other AMM measures where appropriate.

AMM 5 If a SWPT nest is discovered in a location where it may be accessible to visitors, if feasible, qualified biologists/Natural Resource staff will monitor the nest to evaluate whether hatchlings might need protection such as silt fencing barriers to ensure safe passage into suitable habitat. Known nests will be protected with fencing, signage, and/or other appropriate methods, at the discretion of the qualified staff.

AMM 6 Non-emergency activities with the potential to crush dispersing SWPT will be suspended during heavy precipitation events (i.e., at least 0.5 inch of precipitation in a 24-hour period) near potentially occupied SWPT habitat. Activities will be postponed up to 48 hours post precipitation, at the discretion of the qualified biologist/Natural Resource staff.

AMM 7 Per Public Resources Code and CDPR Policy, CDPR will prohibit the release of mosquitofish or any other non-native aquatic organism into aquatic habitat.

AMM 8 Once per year, a qualified biologist/Natural Resource staff will conduct a training session for all CDPR and golf course maintenance personnel, concessions, and lessees. The training, at a minimum, will cover SWPT life history and work constraints. The training session will be repeated for any new personnel at the work site or where conditions at a particular project site warrant additional training.

AMM 9 As part of annual reporting, SWPT sightings will be submitted to CNDDB.

AMM 10 CDPR will continue to implement management measures and modify AMMs in accordance with ongoing adaptive management and based on recommendations found in annual monitoring reports.

Park Visitor Activities: Motorized Recreation **(CA-1)**

Potential Effects: Dispersing individuals struck by vehicles.

Avoidance and Minimization Measures: All AMMs apply, as appropriate.

Park Visitor Activities: Camping **(CA-2)**

Potential Effects: Dispersing individuals exposed to increased predation due to trash enhancing predator populations, Individual SWPT found or handled by camper, Camper crushing a SWPT nest or burrow.

Avoidance and Minimization Measures: All AMMs apply, as appropriate.

AMM 11 Trash dumpsters will continue to be provided throughout the HCP area. Trash receptacles are designed to prevent access by potential predators, including covered dumpsters that open from the side and trash bins with lids. CDPR will continue to implement options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites.

AMM 12 All visitors will continue to be informed they are to deposit their trash in dumpsters/ receptacles provided. All SVRA campers are offered plastic garbage bags. All staff will continue to carry trash bags in each vehicle and make them available to visitors for removing trash and litter from visitor use areas.

AMM 13 As staff levels and funding allow, CDPR will continue to manually remove litter and garbage from aquatic areas that could support SWPT.

Park Visitor Activities: Pedestrian Activities **(CA-3)**

Potential Effects: Nest damaged or destroyed; hatchlings disturbed or crushed.

Avoidance and Minimization Measures: All AMMs apply, as appropriate.

Park Visitor Activities: Fishing **(CA-5)**

Table B-3. Avoidance and Minimization Measures for SWPT
Potential Effects: Disturbance to nesting, basking, and aquatic foraging, Increased exposure to predators, Increased chances for fishing line entanglement.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 14** CDPR will restrict fishing activities from occurring near known SWPT nests. **AMM 15** CDPR will incorporate considerations for SWPT, which includes encouraging and educating anglers about properly disposing of fishing lines, hooks, and bait in trash receptacles.
Park Visitor Activities: Dog Walking **(CA-6)**
Potential Effects: Individuals disturbed; Individuals exposed to increased turbidity; Water quality decreased by depositing waste and/or trampling vegetation; Individuals exposed to increased predation; Foraging activities and reproductive success reduced.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 16** Dogs will continue to be required to be on a leash no longer than 6 feet at all times and under complete control of the owner within the HCP area. **AMM 17** Waste bags will continue to be provided in the HCP area to encourage pet owners to pick up dog waste. **AMM 18** As funding and staff time are available, CDPR will continue to manually remove litter and garbage from SWPT habitat.
Park Visitor Activities: Equestrian Recreation **(CA-7)**
Potential Effects: Nest damaged or destroyed; Hatchlings disturbed or crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Visitor Activities: Holidays **(CA-10)**
Potential Effects: Effects for all covered activities on holidays are not expected to be different from those on non-holidays.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Visitor Activities: Special Events **(CA-11)**
Potential Effects: Effects based on the specific event activity(ies) permitted, but similar to motorized recreation (CA-1), camping (CA-2), and pedestrian activities (CA-3).
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 19** All permits authorizing special events will include AMMs to reduce disturbance to SWPT. Specific AMM recommendations will be based on past experience and dependent on the event location, timing, and potential to impact covered species.
Natural Resources Management: Tidewater Goby and Salmonid Survey **(CA-13)**
Potential Effects: Individuals disturbed/injured/captured; Nests/eggs damaged/destroyed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 20** A visual survey for SWPT will be conducted during sampling in areas where SWPT may be present. If SWPT are present, surveys will either be postponed until a qualified biologist/Natural Resource staff relocates the individual, or will continue if in their opinion, surveys can be conducted with minimal impact to the safety of individual SWPT. **AMM 21** If SWPT are incidentally captured during surveys, they will be checked for injury and released immediately at the capture site. This information will be included in the annual report to USFWS. **AMM 22** If SWPT are injured or killed during surveys, it will be reported to the USFWS as part of the annual report or through the reporting for the USFWS Recovery Permit. **AMM 23** To reduce predation from invasive species, qualified biologists/Natural Resource staff and consultants working under CDPR's 10(a)(1)(A) Recovery Permit (or approved by USFWS) will euthanize invasive species (e.g., bullfrogs, largemouth bass, red-eared sliders, crayfish) incidentally encountered during fisheries and herpetological surveys, which will also reduce predation on SWPT. **AMM 24** CDPR will continue to monitor populations of invasive predators during fisheries, herpetological surveys and SWPT surveys. As needed, CDPR will control invasive predators to offset impacts as outlined in the SWPT Goals and Objectives (section 5.2.4).
Potential Effects: Individuals exposed to increased risk of disease.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 25** Surveyors will continue to follow the USFWS Recommended Equipment Decontamination Procedures, which provides guidance for disinfecting equipment and clothing after entering a pond and before entering an aquatic resource.
Natural Resources Management: Herpetological Monitoring and Management **(CA-14)**
Potential Effects: Individuals disturbed/injured/captured; Individuals exposed to increased risk of spread of disease.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 26** If SWPT is listed, CDPR will amend the USFWS Recovery Permit to include surveys and management activities for SWPT. **AMM 27** A USFWS-approved biologist will continue to conduct CRLF surveys in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF and will follow all USFWS SWPT survey guidance upon issuance. Surveyors will also be trained in the identification and avoidance measures of SWPT.

Table B-3. Avoidance and Minimization Measures for SWPT
Natural Resources Management: Listed Plant Management Activities **(CA-15)**
Potential Effects: Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 28** Best Management Practices will be employed where needed to reduce turbidity from work in aquatic habitat. **AMM 29** Any time a work activity will need to be conducted on the bed, banks, or channel of aquatic habitat with the potential to support SWPT, appropriate steps will continue to be taken to minimize turbidity from activities. If possible, activities will continue to be conducted from outside the wetted area or from stream banks or other upland areas. If activity is necessary in wetted areas, work will continue to be limited to the minimum necessary to achieve desired outcome and care will be taken to reduce turbidity, especially during critical periods like during hatchling emergence or hatchlings presence in the water.
Potential Effects: Individuals and/or nest disturbed.
AMM 30 If a SWPT is found within 100 feet of plant management activities in SWPT habitat, activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or will continue if they determine the activities can continue with minimal risk to the safety of individual SWPT. They may also employ exclusion fencing, biological monitoring, and/or other measures where appropriate.
Natural Resources Management: Habitat Restoration Program **(CA-16)**
Potential Effects: Individuals exposed to increased turbidity, Individuals and/or nests disturbed/injured/destroyed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**
Potential Effects: Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Potential Effects: Individuals and/or nests disturbed/injured/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 31** As funding and staff resources allow, CDPR will continue to eradicate or reduce the cover, biomass, and distribution of non-native invasive plants to enhance CRLF and SWPT habitat. Routine vegetation management will continue to occur at Oso Flaco area, Oceano Lagoon and Lagoon Trail, Meadow Creek, and Pismo Lake spillway. Other areas where vegetation management may occur include Arroyo Grande Creek and Estuary and dune lakes and wetlands. Vegetation management also includes removal of emergent vegetation and debris, as necessary to improve potential CRLF habitat, which will also improve SWPT habitat.
Natural Resources Management: Water Quality Monitoring Projects **(CA-19)**
Potential Effects: Individuals exposed to increased turbidity; Individuals and/or nests disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Campground Maintenance **(CA-20)**
Potential Effects: Dispersing individuals crushed/injured.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 32** Mowing of campgrounds and golf course will be limited to the maximum area necessary to provide for safe public access and limited to public use areas. Care will be taken to avoid mowing wetland areas, wetland vegetation, and in proximity to riparian vegetation to avoid potential burrows or nests. Mowing in ways that reduce mortality or injury will also be considered such as adjusting blade heights and mowing outside of nesting times when SWPT are searching for nesting sites (May-July, typically in the early afternoon) or when hatchlings are making their way to the water (late February/early March). Mowing activities will be adjusted as new information becomes available on the dispersal and habits of SWPT in the covered lands. **AMM 33** If a SWPT is observed during maintenance activities, the activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or will continue if they determine the activities can continue with minimal risk to the safety of individual SWPT. They may also employ exclusion fencing, biological monitoring, and/or other measures where appropriate.
Park Maintenance: General Facilities Maintenance **(CA-21)**
Potential Effects: Dispersing individuals crushed/injured.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Routine Riparian Maintenance **(CA-26)**
Potential Effects: Individuals and nests crushed/injured/disturbed.

Table B-3. Avoidance and Minimization Measures for SWPT
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 34** Culvert maintenance will be conducted outside of the oviposition/nest construction season and the hatchling emergence season, to the extent feasible. **AMM 35** As determined by a qualified biologist/Natural Resource staff, pre-activity surveys will be conducted no more than 2 days before the onset of activities associated with projects within suitable habitat for SWPT (e.g., culvert maintenance). If any SWPT life stage is found, work will not commence until AMMs are implemented, including relocation, exclusion fencing, and/or monitoring. **AMM 36** As determined by a qualified biologist/Natural Resource staff, a SWPT monitor will be on site during maintenance associated with projects within suitable habitat for SWPT (e.g., culvert maintenance). If SWPT is detected within the project area, work will stop until the animal is no longer present or until appropriate AMMs are implemented. AMMs can include such measures as relocation, exclusion fencing with additional monitoring to prevent take along fenceline, and/or biological monitoring during maintenance activities. **AMM 37** SWPT life-stages found in the work area will be relocated upon determination by the qualified biologist/Natural Resource staff that an appropriate relocation site exists, and relocation is the preferred avoidance method. Qualified staff will be allowed sufficient time to move SWPT from the work site before activities begin. Only those qualified will participate in activities associated with capturing, handling, and monitoring SWPT. They will follow safe-handling practices as outlined in the Declining Amphibians Population Task Force Code of Practice. **AMM 38** Heavy equipment will continue to be operated from the roadside or upper banks and will not be placed in the water body during culvert maintenance. Backhoe work will continue to be restricted to the roadside or upper bank and only the bucket may be placed in the water body. **AMM 39** CDPR staff will continue to limit the amount of disturbance to vegetation, banks, and streambed. Work and entrance into the work area will continue to be restricted to established areas. **AMM 40** All refueling, maintenance, and staging of equipment and vehicles will continue to occur at least 60 feet from riparian habitat and water bodies in a location where a spill will not drain directly toward aquatic habitat. **AMM 41** All vehicles and equipment will continue to be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. Prior to the start of maintenance activities, all equipment will continue to be inspected for leaks. **AMM 42** A spill plan will continue to be in place for prompt and effective response to an accidental spill. The spill plan will continue to include, at a minimum, immediately notifying the biologist of any hazardous spills and immediately cleaning up spills. All Park staff will continue to be informed of the importance of preventing spills and appropriate measures to take when a spill happens. **AMM 43** All equipment and vehicles under-carriages will continue to be inspected periodically. Equipment that has been parked near potentially occupied SWPT habitat will be re-inspected prior to moving.
Potential Effects: Individuals exposed to increased predation.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Potential Effects: Individuals exposed to increased turbidity; Individuals exposed to increased risk of spread of disease; Temporary disturbance of approximately 0.3 acre of wetlands.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Boardwalk and Other Pedestrian Access Maintenance **(CA-31)**
Potential Effects: Individuals disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 44** Crews will continue to use hand tools to trim all vegetation.
Visitor Services: Emergency Response **(CA-33)**
Potential Effects: Individuals struck by vehicles, Breeding and/or dispersal habitat damaged, Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as feasible and appropriate.
Visitor Services: Access by Non-CDPR Vehicles **(CA-34)**
Potential Effects: Individuals struck by vehicles, Breeding and/or dispersal habitat damaged, Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as feasible and appropriate.
Visitor Services: Pismo State Beach Golf Course Operations **(CA-37)**
Potential Effects: Dispersing individuals injured/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Motorized Vehicle Crossing of Pismo/Carpenter, Arroyo Grande, and Oso Flaco Creeks **(CA-40)**

Table B-3. Avoidance and Minimization Measures for SWPT
Potential Effects: Individuals struck by vehicles; Individuals disturbed; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 45** Even though Pismo/Carpenter and Oso Flaco Creeks are closed to the public, CDPR and contractors must still drive across these creeks. CDPR staff will continue to periodically review conditions and identify any issues that may result from vehicle crossings in areas where there is ponded water. If, in the opinion of a qualified biologist/Natural Resource staff, a vehicle crossing would present a threat to any life stages of SWPT, staff will close this access until conditions have changed. **AMM 46** When tidal action or stream flow increase ponded areas within Arroyo Grande Creek and Estuary, CDPR will regularly inspect and modify fences to prevent all vehicle activity in ponded water.
Other HCP Covered Activities: Pismo Creek Estuary Seasonal (floating) Bridge **(CA-41)**
Potential Effects: Individuals disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Dust Control Activities **(CA-44)**
Potential Effects: Nesting and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Cultural Resources Management **(CA-45)**
Potential Effects: Nesting and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: CDPR Management of Agricultural Lands (**CA-46**)
Potential Effects: Nesting and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Oso Flaco Lake Boardwalk Replacement **(CA-48)**
Potential Effects: Same as riparian maintenance activities, Potential loss of aquatic habitat, Disturbance from construction noise, including pile driving; Individuals exposed to increased turbidity; Water quality decreased
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 47** Before any project activities occur, a qualified biologist/Natural Resource staff will conduct a training session for all construction personnel. At a minimum, the training will include a description of the SWPT and its habitat, the importance of the SWPT and its habitat, the general measures that are being implemented to conserve the SWPT as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided a qualified person is on hand to answer any questions. **AMM 48** The construction footprint will be limited as much as possible, with all construction areas including access and staging areas clearly demarcated. **AMM 49** As feasible, boardwalk replacement will be constructed during a period when nesting is unlikely to occur in the project area. A USFWS-approved biologist will survey the work site ≤2 days before the onset of activities. If SWPT adults, juveniles, or eggs are found, work will not commence until avoidance measures are in place. **AMM 50** Any SWPT life-stages found in the project work area may be relocated upon determination by the qualified biologist/Natural Resource staff that an appropriate relocation site exists and relocation is the preferred avoidance method. They will be allowed sufficient time to move SWPT from the work site before work activities begin. Only those qualified will participate in activities associated with the capture, handling, and monitoring of SWPT. **AMM 51** A qualified biologist/Natural Resource staff will be present at the work site, as needed, or until the removal of all SWPT, instruction of workers, and habitat disturbance have been completed. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The qualified biologist/Natural Resource staff will ensure that this individual receives training. The training, at a minimum, will cover identification and life history of SWPT and work constraints. The monitor and the qualified biologist/Natural Resource staff will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USFWS. **AMM 52** As practical, pile driving will always use a soft start procedure. The soft start would include an initial set of three strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period. This process will be repeated a total of three times prior to initiation of pile driving. Soft start is required for any impact driving, including at the beginning of the day and at any time following a cessation of impact pile driving of 30 minutes or longer. **AMM 53** Whenever feasible, a vibratory hammer will be used. **AMM 54** CDPR will comply with all permit requirements, including best management practices to minimize sediment impacts.
Other HCP Covered Activities: Special Projects **(CA-49)**
Potential Effects: Permanent and/or temporary loss of breeding or upland habitat; Individuals crushed/injured.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Use of Pesticides (**CA-51**)

Table B-3. Avoidance and Minimization Measures for SWPT	
Potential Effects: Disturbance of habitat; Exposure from contact with contaminated prey or vegetation; Exposure from contact with residues, inhalation of vapors.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 55	Any application of herbicide or pesticide in aquatic habitat will be consistent with the Aquatic Pesticide Application Plan (APAP) and will be designed to achieve control of pests or exotic species while protecting water quality and aquatic organisms.
AMM 56	When pesticide application must occur near SWPT breeding habitat, a qualified biologist/Natural Resource staff will conduct a survey for SWPT as practical prior to the application and will instruct the work crew on their identification and biology. If SWPT is observed, all work will cease immediately until the qualified biologist/Natural Resource staff arrives and assesses the situation to determine if the work can proceed.
AMM 57	As operationally feasible and at the discretion of trained SWPT monitors, herbicide application will not occur within suitable nesting habitat (and SWPT travel corridors between suitable nesting and aquatic habitat) during the SWPT oviposition/nest construction season (generally May 15–July 31) and the hatchling emergence season (generally March 1–April 30 as well as August 1–September 30).
AMM 58	Pesticides will continue to be applied at wind speeds below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side.
AMM 59	Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or NWS forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application.
AMM 60	CDPR will continue to ensure that all workers are trained in the safe and effective use of pesticides in sensitive habitats.
AMM 61	CDPR will continue to ensure that qualified personnel are present at key phases of the work to ensure that pesticide application activities do not result in impacts to covered species.
AMM 62	If pesticides are spilled, they will continue to be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and are familiar with the use of absorbent materials. Spills will continue to be cleaned according to label instructions, and all equipment used to remove spills will be properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements.
AMM 63	Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information.
AMM 64	CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made.
AMM 65	All herbicide applications will continue to be made according to the product label in accordance with regulations of the EPA, CalEPA, Cal OSHA, DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.

Table B-4. Avoidance and Minimization Measures for CRLF
General AMMs
AMM 1 CDPR will continue to provide educational content on the Oceano Dunes SVRA and Pismo State Beach websites and social media. Content may include life history information, measures being taken to protect all HCP covered species found at the parks, and the importance of not touching or disturbing covered species. Information will be updated as needed and visitors can visit campground kiosks or interpretive events for additional information such as what they can do to protect the covered species. Covered species information will also be included as part of ongoing interpretative programs.
AMM 2 Posted speed limits will continue to be enforced throughout the HCP area.
AMM 3 Any time CDPR staff note a CRLF that is in harm's way (for example, found on the beach, on a roadway, in a pedestrian path, etc), that individual may be captured and relocated by a qualified biologist/Natural Resource staff to suitable habitat within the HCP area.
AMM 4 Ground disturbing activities in HCP covered lands, including maintenance activities at the golf course or campgrounds, in known or likely CRLF habitat, will be timed to avoid aestivating or dispersing CRLF. As determined by a qualified biologist/Natural Resource staff, pre-activity surveys will be conducted where activities may pose a higher risk due to timing, location, or intensity of activity. If any CRLF are found, activities will be adjusted or postponed until a USFWS-approved biologist relocates the individual(s) out of harm's way or until they determine the project can proceed with minimal risk to the safety of the individual CRLF. The biologist may also employ protective fencing, rescheduling work times or locations, or other AMM measures where appropriate.
AMM 5 Non-emergency activities with the potential to crush dispersing CRLF will be suspended during heavy precipitation events (i.e., at least 0.5 inches of precipitation in a 24-hour period) near potentially occupied CRLF habitat. Activities will be postponed up to 48 hours post precipitation, at the discretion of the qualified biologist/Natural Resource staff.
AMM 6 Per Public Resources Code and CDPR Policy, CDPR will prohibit the release of mosquitofish or any other non-native aquatic organism into aquatic habitat.
AMM 7 Once per year, a qualified biologist/Natural Resource staff will conduct a training session for all CDPR and golf course maintenance personnel, concessions, and lessees. The training, at a minimum, will cover CRLF life history and work constraints. The training session will be repeated for any new personnel at the work site or where conditions at a particular project site warrant additional training.
AMM 8 As part of annual reporting, CRLF sightings will be submitted to CNDDB.
AMM 9 CDPR will continue to implement management measures and modify AMMs in accordance with ongoing adaptive management and based on recommendations found in annual monitoring reports.
Park Visitor Activities: Motorized Recreation **(CA-1)**
Potential Effects: Dispersing individuals struck by vehicles.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Visitor Activities: Camping **(CA-2)**
Potential Effects: Dispersing individuals exposed to increased predation due to trash enhancing predator populations; Individual CRLF found or handled by camper; Camper crushing a CRLF.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 10 Trash dumpsters will continue to be provided throughout the HCP area. Trash receptacles are designed to prevent access by potential predators, including covered dumpsters that open from the side and trash bins with lids. CDPR will continue to implement options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites.
AMM 11 All visitors will continue to be informed they are to deposit their trash in dumpsters/ receptacles provided. All SVRA campers are offered plastic garbage bags. All staff will continue to carry trash bags in each vehicle and make them available to visitors for removing trash and litter from visitor use areas.
AMM 12 As staff levels and funding allow, CDPR will continue to manually remove litter and garbage from aquatic areas that could support CRLF.
Park Visitor Activities: Pedestrian Activities **(CA-3)**
Potential Effects: Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 13 CDPR will continue to monitor the Carpenter Creek, Pismo Creek, and any other pedestrian water crossing locations for CRLF. If CRLF are observed in or near locations where pedestrians are known to cross and deemed vulnerable to pedestrian activity as determined by a qualified biologist/Natural Resource staff, CDPR will continue to post signs closing crossings and/or encourage use of other paths in the HCP area, depending on the intensity of disturbance.

Table B-4. Avoidance and Minimization Measures for CRLF
Park Visitor Activities: Dog Walking **(CA-6)**
Potential Effects: Individuals disturbed; Individuals exposed to increased turbidity; Water quality decreased by depositing waste and/or trampling vegetation; Individuals exposed to increased predation; Foraging activities and reproductive success reduced.
Avoidance and Minimization Measures: All AMMs apply, as appropriate **AMM 14** Dogs will continue to be required to be on a leash no longer than 6 feet at all times and under complete control of the owner within the HCP area. **AMM 15** Waste bags will continue to be provided in the HCP area to encourage pet owners to pick up dog waste. **AMM 16** As funding and staff time are available, CDPR will continue to manually remove litter and garbage from CRLF habitat.
Park Visitor Activities: Equestrian Recreation **(CA-7)**
Potential Effects: Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate
Park Visitor Activities: Holidays **(CA-10)**
Potential Effects: Effects for all covered activities on holidays are not expected to be different from those on non-holidays.
Avoidance and Minimization Measures: All AMMs apply, as appropriate
Park Visitor Activities: Special Events **(CA-11)**
Potential Effects: Effects based on the specific event activity(ies) permitted, but similar to motorized recreation (CA-1), camping (CA-2), and pedestrian activities (CA-3).
Avoidance and Minimization Measures: All AMMs apply, as appropriate **AMM 17** All permits authorizing special events will continue to include AMMs to reduce disturbance to CRLF. Specific AMM recommendations will be based on past experience and dependent on the event location, timing, and potential to impact covered species.
Natural Resources Management: Tidewater Goby and Salmonid Surveys **(CA-13)**
Potential Effects: Individuals disturbed/injured/captured, Egg masses damaged
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 18** A visual survey for CRLF and CRLF egg masses will continue to be conducted prior to sampling in areas where CRLF may be present. If CRLF are present, surveys will be postponed until a qualified biologist/Natural Resource staff determines they can safely proceed, including by implementing appropriate AMMs. If egg masses are present, sampling will continue to be postponed until the eggs have hatched or the survey will continue to be conducted to avoid all egg masses. **AMM 19** If CRLF are incidentally captured during surveys, they will be checked for injury and released immediately at the capture site. This information will continue to be included in the annual report to USFWS. **AMM 20** Prior to activities that may involve handling CRLF, the surveyor(s) will continue to ensure that hands are free of sunscreens, lotion, nicotine, and insect repellent. **AMM 21** If CRLF are injured or killed during surveys, it will be reported to the USFWS as part of the annual report or through the USFWS Recovery Permit. **AMM 22** To reduce predation from invasive species, qualified CDPR staff and consultants working under CDPR's 10(a)(1)(A) Recovery Permit (or approved by USFWS) will euthanize invasive species (e.g., bullfrogs, largemouth bass, red-eared sliders, crayfish) incidentally encountered during fisheries and herpetological surveys, which will also reduce predation on CRLF. **AMM 23** CDPR will continue to monitor populations of invasive predators during fisheries, herpetological surveys and CRLF surveys. As needed, CDPR will control invasive predators to offset impacts as outlined in the CRLF Goals and Objectives (section 5.2.5). **AMM 24** CDPR will continue to prohibit the release of mosquitofish into any known or potential CRLF breeding habitat.
Potential Effects: Individuals exposed to increased risk of disease.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 25** Surveyors will continue to follow the USFWS Recommended Equipment Decontamination Procedures, which provides guidance for disinfecting equipment and clothing after entering a pond and before entering an aquatic resource.
Natural Resources Management: Herpetological Monitoring and Management **(CA-14)**
Potential Effects: Individuals disturbed/injured/captured; Egg masses damaged; Individuals exposed to increased risk of spread of disease.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 26** A USFWS-approved biologist will continue to conduct CRLF surveys in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF.
Natural Resources Management: Listed Plant Management Activities **(CA-15)**
Potential Effects: Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.

Table B-4. Avoidance and Minimization Measures for CRLF	
AMM 27	Best Management Practices will be employed where needed to reduce turbidity from work in aquatic habitat.
AMM 28	Any time a work activity will need to be conducted on the bed, banks, or channel of aquatic habitat with the potential to support CRLF, appropriate steps will continue to be taken to minimize turbidity from activities. If possible, activities will continue to be conducted from outside the wetted area or from stream banks or other upland areas. If activity is necessary in wetted areas, work will continue to be limited to the minimum necessary to achieve desired outcome and care will be taken to reduce turbidity, especially during critical periods like when egg masses or tadpoles are present in the water.
Potential Effects: Individuals and/or egg masses disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 29	Depending on the type of activity (e.g., ground disturbance) and at the discretion of a qualified biologist/Natural Resource staff, immediately prior to the start of listed plant management activities near potentially occupied CRLF habitat, surveys for CRLF will be conducted up to 100 feet outside the project boundaries.
AMM 30	If a CRLF is found within 100 feet of plant management activities in CRLF habitat, activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or will continue if they determine the activities can continue with minimal risk to the safety of individual CRLF. They may also employ exclusion fencing, biological monitoring and/or other measures where appropriate.
Natural Resources Management: Habitat Restoration Program **(CA-16)**	
Potential Effects: Individuals exposed to increased turbidity; Individuals and or egg masses disturbed/injured/destroyed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**	
Potential Effects: Individuals exposed to increased turbidity; Individuals and or egg masses disturbed/injured/captured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 31	As funding and staff resources allow, CDPR will continue to eradicate or reduce the cover, biomass, and distribution of non-native invasive plants to enhance CRLF habitat. Routine vegetation management will continue to occur at Oso Flaco area, Oceano Lagoon and Lagoon Trail, Meadow Creek, and Pismo Lake spillway. Other areas where vegetation management may occur include Arroyo Grande Creek and Estuary and dune lakes and wetlands. Vegetation management also includes removal of emergent vegetation and debris, as necessary to improve potential CRLF habitat.
Natural Resources Management: Water Quality Monitoring Projects **(CA-19)**	
Potential Effects: Individuals exposed to increased turbidity; Individuals and/or egg masses disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 32	CDPR will continue to work with public agencies, landowners, and stakeholders to secure a sustained water inflow into the estuary, focused on sustainable groundwater use and maintenance of instream flows in the lower mile of Arroyo Grande Creek.
AMM 33	CDPR will work with the County on their operations and maintenance of the Sand Canyon Flapgate to minimize impacts to CRLF from sediment, invasive aquatic species, and other similar threats.
Park Maintenance: Campground Maintenance **(CA-20)**	
Potential Effects: Dispersing individuals crushed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 34	Mowing of campgrounds and golf course will be limited to the maximum area necessary to provide for safe public access and limited to public use areas. Care will be taken to avoid mowing wetland areas, wetland vegetation, and in proximity to riparian vegetation to avoid aestivating or dispersing CRLF. Mowing activities will be adjusted as new information becomes available on the dispersal and habits of CRLF in the covered lands.
AMM 35	If a CRLF is observed during maintenance activities, the activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or will continue if they determine the activities can continue with minimal risk to the safety of individual CRLF. They may also employ exclusion fencing, biological monitoring, and/or other measures where appropriate.
Park Maintenance: General Facilities Maintenance **(CA-21)**	
Potential Effects: Individuals and egg masses crushed/injured/disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Maintenance: Routine Riparian Maintenance **(CA-26)**	
Potential Effects: Individuals and egg masses crushed/injured/disturbed.	

Table B-4. Avoidance and Minimization Measures for CRLF
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 36** Culvert maintenance will continue to be conducted during periods when egg masses or larvae are unlikely to occur in the project area (e.g., low flow period), to the extent feasible. **AMM 37** A USFWS-approved biologist/Natural Resource staff will conduct focused surveys of the work sites no more than 2 weeks before the onset of activities associated with projects within suitable habitat for CRLF (e.g., culvert maintenance). If CRLF adults, tadpoles, or eggs are found, work will not commence until AMMs are in place. **AMM 38** As determined by a USFWS-approved biologist/Natural Resource staff, qualified staff will be on site during maintenance associated with projects within suitable habitat for CRLF (e.g., culvert maintenance). If CRLF is detected within the project area, work will stop until CRLF is no longer present or until appropriate AMMs are in place. AMMs can include such measures as relocation, exclusion fencing with additional monitoring to prevent take along fenceline, and/or biological monitoring during maintenance activities. **AMM 39** CRLF life-stages found in the work area will be relocated upon determination by the USFWS-approved biologist/Natural Resource staff that an appropriate relocation site exists and relocation is the preferred avoidance method. The biologist will be allowed sufficient time to move CRLF from the work site before activities begin. Only USFWS-approved biologists will participate in activities associated with capturing, handling, and monitoring CRLF. The biologists will follow safe-handling practices as outlined in the Declining Amphibians Population Task Force Code of Practice. **AMM 40** Heavy equipment will continue to be operated from the roadside or upper banks and will not be placed in the water body during culvert maintenance. Backhoe work will continue to be restricted to the roadside or upper bank and only the bucket may be placed in the water body. **AMM 41** CDPR staff will continue to limit the amount of disturbance to vegetation, banks, and streambed. Work and entrance into the work area will continue to be restricted to established areas. **AMM 42** All refueling, maintenance, and staging of equipment and vehicles will continue to occur at least 60 feet from riparian habitat and water bodies in a location where a spill will not drain directly toward aquatic habitat. **AMM 43** All vehicles and equipment will continue to be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. Prior to the start of maintenance activities, all equipment will continue to be inspected for leaks. **AMM 44** A spill plan will continue to be in place for prompt and effective response to an accidental spill. The spill plan will continue to include, at a minimum, immediately notifying the biologist of any hazardous spills and immediately cleaning up spills. All Park staff will continue to be informed of the importance of preventing spills and appropriate measures to take when a spill happens. **AMM 45** All equipment and vehicles under-carriages will continue to be inspected periodically. Equipment that has been parked near potentially occupied CRLF habitat will be re-inspected prior to moving.
Potential Effects: Individuals exposed to increased predation.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Potential Effects: Individuals exposed to increased turbidity, Individuals exposed to increased risk of spread of disease; Temporary disturbance of approximately 0.3 acre of wetlands.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Boardwalk and Other Pedestrian Access Maintenance **(CA-31)**
Potential Effects: Individuals disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 46** Crews will continue to use hand tools to trim all vegetation.
Visitor Services: Emergency Response **(CA-33)**
Potential Effects: Individuals struck by vehicles; Breeding and/or dispersal habitat damaged; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as feasible and appropriate.
Visitor Services: Access by Non-CDPR Vehicles **(CA-34)**
Potential Effects: Individuals struck by vehicles; Breeding and/or dispersal habitat damaged; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as feasible and appropriate.
Visitor Services: Pismo State Beach Golf Course Operations **(CA-37)**
Potential Effects: Dispersing individuals injured/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.

Table B-4. Avoidance and Minimization Measures for CRLF	
Visitor Services: Grover Beach Lodge and Conference Center **(CA-38)**	
Potential Effects: Dispersing individuals injured/crushed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Motorized Vehicle Crossing of Pismo/Carpenter, Arroyo Grande, and Oso Flaco Creeks **(CA-40)**	
Potential Effects: Individuals struck by vehicles; Individuals disturbed; Individuals exposed to increased turbidity.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 47	Even though Pismo/Carpenter and Oso Flaco Creeks are closed to the public, CDPR and contractors must still drive across these creeks. CDPR staff will continue to periodically review conditions and identify any issues that may result from vehicle crossings in areas where there is ponded water. If, in the opinion of a qualified biologist/Natural Resource staff, a vehicle crossing would present a threat to any life stages of CRLF, staff will close this access until conditions have changed.
AMM 48	When tidal action or stream flow increase ponded areas within Arroyo Grande Creek and Estuary, CDPR will regularly inspect and modify fences to prevent all vehicle activity in ponded water.
Other HCP Covered Activities: Pismo Creek Estuary Seasonal (Floating) Bridge **(CA-41)**	
Potential Effects: Individuals disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Dust Control Activities **(CA-44)**	
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Cultural Resources Management **(CA-45)**	
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: CDPR Management of Agricultural Lands **(CA-46)**	
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Maintenance of Bioreactor on Agricultural Lands **(CA-47)**	
Potential Effects: Individuals crushed/injured/disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Oso Flaco Lake Boardwalk Replacement **(CA-48)**	
Potential Effects: Same as riparian maintenance activities; Potential loss of aquatic habitat; Disturbance from construction noise, including pile driving; Individuals exposed to increased turbidity; Water quality decreased	
Avoidance and Minimization Measures: All AMMs apply, as appropriate	
AMM 49	Before any project activities occur, a USFWS-approved biologist/Natural Resource staff will conduct a training session for all construction personnel. At a minimum, the training will include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided a qualified person is on hand to answer any questions.
AMM 50	The construction footprint will be limited as much as possible, with all construction areas including access and staging areas clearly demarcated.
AMM 51	As feasible, boardwalk replacement will be constructed during a period when egg masses are unlikely to occur in the project area. A USFWS-approved biologist will survey the work site within 1 week before the onset of activities. If CRLF adults, tadpoles, or eggs are found, work will not commence until avoidance measures are in place.
AMM 52	Any CRLF life-stages found in the project work area may be relocated upon determination by the USFWS-approved biologist that an appropriate relocation site exists and relocation is the preferred avoidance method. The approved biologist will be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of CRLF.
AMM 53	A USFWS-approved biologist will be present at the work site until the removal of all CRLF, instruction of workers, and habitat disturbance have been completed. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this individual receives training. The training, at a minimum, will cover identification and life history or CRLF and work constraints. The monitor and the USFWS-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USFWS.
AMM 54	As practical, pile driving will always use a soft start procedure. The soft start would include an initial set of three strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period. This process will be repeated a total of three

Table B-4. Avoidance and Minimization Measures for CRLF	
	times prior to initiation of pile driving. Soft start is required for any impact driving, including at the beginning of the day and at any time following a cessation of impact pile driving of 30 minutes or longer.
AMM 55	Whenever feasible, a vibratory hammer will be used.
AMM 56	CDPR will comply with all permit requirements, including best management practices to minimize sediment impacts.
Other HCP Covered Activities: Special Projects **(CA-49)**	
Potential Effects: Permanent and/or temporary loss of upland habitat; Individuals crushed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Use of Pesticides **(CA-51)**	
Potential Effects: Disturbance of habitat; Exposure from contact with contaminated prey or vegetation; Exposure from contact with residues, Inhalation of vapors.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 57	Any application of herbicide or pesticide in aquatic habitat will be consistent with the Aquatic Pesticide Application Plan (APAP) and will be designed to achieve control of pests or exotic species while protecting water quality and aquatic organisms.
AMM 58	When pesticide application must occur near CRLF breeding habitat, a qualified biologist/Natural Resource staff will conduct a survey for CRLF as practical prior to the application and will instruct the work crew on their identification and biology. If CRLF is observed, all work will cease immediately until the qualified staff arrives and assesses the situation to determine if the work can proceed.
AMM 59	Pesticides will continue to be applied at wind speeds below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side.
AMM 60	Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or NWS forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application.
AMM 61	CDPR will continue to ensure that all workers are trained in the safe and effective use of pesticides in sensitive habitats.
AMM 62	CDPR will continue to ensure that qualified personnel are present at all phases of the work to ensure that pesticide application activities do not result in impacts to covered species.
AMM 63	If pesticides are spilled, they will continue to be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and are familiar with the use of absorbent materials. Spills will continue to be cleaned according to label instructions, and all equipment used to remove spills will be properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements.
AMM 64	Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information.
AMM 65	CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made.
AMM 66	All herbicide applications will continue to be made according to the product label in accordance with regulations of the EPA, CalEPA, Cal OSHA, DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.

Table B-5. Avoidance and Minimization Measures for WSF

General AMMs

AMM 1 CDPR will continue to provide educational content on the Oceano Dunes SVRA and Pismo State Beach websites and social media. Content may include life history information, measures being taken to protect all HCP covered species found at the parks, and the importance of not touching or disturbing covered species. Information will be updated as needed and visitors can visit campground kiosks or interpretive events for additional information such as what they can do to protect the covered species. Covered species information will also be included as part of ongoing interpretative programs.

AMM 2 Posted speed limits will continue to be enforced throughout the HCP area.

AMM 3 Any time CDPR staff note a WSF that is in harm's way (for example, found on the beach, on a roadway, in a pedestrian path, etc), that individual may be captured and relocated by a qualified biologist/Natural Resource staff to suitable habitat within the HCP area.

AMM 4 Ground disturbing activities in HCP covered lands, including maintenance activities at the golf course or campgrounds, in known or likely WSF habitat, will be timed to avoid sensitive life stages including breeding and aestivation periods. As determined by a qualified biologist/Natural Resource staff, pre-activity surveys will be conducted where activities may pose a higher risk due to timing, location, or intensity of activity. If any WSF are found, activities will be adjusted or postponed until the qualified staff relocates the individual(s) out of harm's way or until they determine the project can proceed with minimal risk to the safety of the WSF. They may also employ protective fencing, rescheduling work times or locations, or other AMM measures where appropriate.

AMM 5 Non-emergency activities with the potential to crush dispersing WSF will be suspended during heavy precipitation events (i.e., at least 0.5 inches of precipitation in a 24-hour period) near potentially occupied WSF habitat. Activities will be postponed up to 48 hours post precipitation, at the discretion of the qualified biologist/Natural Resource staff.

AMM 6 Per Public Resources Code and CDPR Policy, CDPR will prohibit the release of mosquitofish or any other non-native aquatic organism into aquatic habitat.

AMM 7 Once per year, a qualified biologist/Natural Resource staff will conduct a training session for all CDPR and golf course maintenance personnel, concessions, and lessees. The training, at a minimum, will cover WSF life history and work constraints.

AMM 8 As part of annual reporting, WSF sightings will be submitted to CNDDB.

AMM 9 CDPR will continue to implement management measures and modify AMMs in accordance with ongoing adaptive management and based on recommendations found in annual monitoring reports.

Park Visitor Activities: Motorized Recreation **(CA-1)**

Potential Effects: Dispersing individuals struck by vehicles; Dormant individuals disturbed by OHV noise.

Avoidance and Minimization Measures: All AMMs apply, as appropriate.

Park Visitor Activities: Camping **(CA-2)**

Potential Effects: Dispersing individuals exposed to increased predation due to trash.

Avoidance and Minimization Measures: All AMMs apply, as appropriate.

AMM 10 Trash dumpsters will continue to be provided throughout the HCP area. Trash receptacles are designed to prevent access by potential predators, including covered dumpsters that open from the side and trash bins with lids. CDPR will continue to implement options to reduce the movement of trash from the dumpsters and reduce predator presence at the dumpster sites.

AMM 11 All visitors will continue to be informed they are to deposit their trash in dumpsters/ receptacles provided. All campers are offered plastic garbage bags. All staff will continue to carry trash bags in each vehicle and make them available to visitors for removing trash and litter from visitor use areas.

AMM 12 As staff levels and funding allow, CDPR will continue to manually remove litter and garbage from aquatic areas that could support WSF.

AMM 13 If an aestivating WSF is discovered in a location where it may be accessible to visitors, if feasible, a qualified biologist/Natural Resource staff will monitor the area to evaluate whether WSF might need protection such as fencing, signage and/or other appropriate methods.

Park Visitor Activities: Pedestrian Activities **(CA-3)**

Potential Effects: Egg cluster damaged or destroyed.

Avoidance and Minimization Measures: All AMMs apply, as appropriate.

AMM 14 If WSF egg clusters are observed in or near locations where they may be accessible to visitors, CDPR will install fencing and/or signage to keep visitors away from the area.

Park Visitor Activities: Dog Walking **(CA-6)**

Table B-5. Avoidance and Minimization Measures for WSF
Potential Effects: Individuals disturbed; Individuals exposed to increased turbidity; Water quality decreased by depositing waste and/or trampling vegetation; Individuals exposed to increased predation; Foraging activities and reproductive success reduced.
Avoidance and Minimization Measures: All AMMs apply, as appropriate **AMM 15** Dogs will continue to be required to be on a leash no longer than 6 feet at all times and under complete control of the owner within the HCP area. **AMM 16** Waste bags will continue to be provided in the HCP area to encourage pet owners to pick up dog waste. **AMM 17** As funding and staff time are available, CDPR will continue to manually remove litter and garbage from WSF habitat.
Park Visitor Activities: Equestrian Recreation **(CA-7)**
Potential Effects: Egg cluster damaged or destroyed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Visitor Activities: Holidays **(CA-10)**
Potential Effects: Effects for all covered activities on holidays are not expected to be different from those on non-holidays
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Visitor Activities: Special Events **(CA-11)**
Potential Effects: Effects based on the specific event activity(ies) permitted, but similar to motorized recreation (CA-1), camping (CA-2), and pedestrian activities (CA-3).
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.** **AMM 18** All permits authorizing special events will include AMMs to reduce disturbance to WSF. Specific AMM recommendations will be based on past experience and dependent on the event location, timing, and potential to impact covered species.
Natural Resources Management: Installation and Maintenance of Western Snowy Plover and California Least Tern Protection Fences **(12a)**
Potential Effects: Individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 19** Work that involves soil movement would not be conducted during or immediately after heavy precipitation events (i.e., at least 0.5 inches of precipitation in a 24-hour period).
Natural Resources Management: Western Snowy Plover and California Least Tern Monitoring and Management **(CA-12b)**
Potential Effects: Individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Natural Resources Management: Tidewater Goby and Salmonid Surveys **(CA-13)**
Potential Effects: Individuals disturbed/injured/captured; Egg clusters damaged.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 20** A visual survey for WSF or egg clusters will be conducted prior to sampling in areas where WSF may be present. If WSF are present, surveys will be postponed until a qualified biologist/Natural Resource staff determines they can safely proceed, including by implementing appropriate AMMs. If egg clusters are present, sampling will be postponed until the eggs have hatched or the survey will be conducted to avoid all egg clusters. **AMM 21** Prior to activities that may involve handling WSF, the surveyor will ensure that hands are free of sunscreens, lotion, nicotine, and insect repellent. **AMM 22** If WSF are incidentally captured during surveys, they will be checked for injury and released immediately at the capture site. This information will be included in the annual report to USFWS. **AMM 23** If WSF are injured or killed during surveys, it will be reported to the USFWS as part of the annual report or through the USFWS Recovery Permit. **AMM 24** To reduce predation from invasive species, qualified biologist/Natural Resource staff and consultants working under CDPR's 10(a)(1)(A) Recovery Permit (or approved by USFWS) will euthanize invasive species (e.g., bullfrogs, largemouth bass, red-eared sliders, crayfish) incidentally encountered during fisheries and herpetological surveys, which will also reduce predation on WSF. **AMM 25** CDPR will continue to monitor populations of invasive predators during fisheries, herpetological, and WSF surveys. As needed, CDPR will control invasive predators to offset impacts as outlined in the WSF Goals and Objectives (section 5.2.6). **AMM 26** CDPR will continue to prohibit the release of mosquitofish into any known or potential WSF breeding habitat.
Potential Effects: Individuals exposed to increased risk of disease.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 27** Surveyors will continue to follow the USFWS Recommended Equipment Decontamination Procedures, which provides guidance for disinfecting equipment and clothing after entering a pond and before entering an aquatic resource.
Natural Resources Management: Herpetological Monitoring and Management **(CA-14)**

Table B-5. Avoidance and Minimization Measures for WSF
Potential Effects: Individuals killed/disturbed/injured/captured; Egg clusters damaged; Individuals exposed to increased risk of spread of disease.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 28** If WSF is listed, CDPR will amend the USFWS Recovery Permit to include surveys and management activities for WSF. **AMM 29** A USFWS-approved biologist will follow all USFWS WSF survey guidance upon issuance. Surveyors will be trained in the identification and avoidance measures of WSF.
Natural Resources Management: Listed Plant Management Activities **(CA-15)**
Potential Effects: Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 30** Best Management Practices will be employed where needed to reduce turbidity from work in aquatic habitat. **AMM 31** Any time a work activity needs to be conducted on the bed, banks, or channel of an aquatic habitat with the potential to support WSF, appropriate steps will be taken to minimize turbidity from activities. If possible, activities will be conducted from outside the wetted area or from stream banks or other upland areas. If activity is necessary in wetted areas, work will be limited to the minimum necessary to achieve desired outcome and care will be taken to reduce turbidity, especially during critical periods like when egg clusters are present or tadpoles are present in the water.
Potential Effects: Individuals and/or egg clusters disturbed, harmed, or destroyed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 32** If a WSF is found within 100 feet of plant management activities in WSF habitat, activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities can continue with minimal risk to the safety of individual WSF. They may also employ exclusion fencing, biological monitoring and/or other measures where appropriate.
Natural Resources Management: Habitat Restoration Program **(CA-16)**
Potential Effects: Individuals exposed to increased turbidity; Individuals and/or egg clusters disturbed/harmed/destroyed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**
Potential Effects: Individuals exposed to increased turbidity; Individuals and/or egg clusters disturbed/injured/captured/destroyed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 33** As funding and staff resources allow, CDPR will eradicate or reduce the cover, biomass, and distribution of non-native invasive plants to enhance WSF habitat. Routine vegetation management will continue to occur at Oso Flaco area, Oceano Lagoon and Lagoon Trail, Meadow Creek, and Pismo Lake spillway. Other areas where vegetation management may occur include Arroyo Grande Creek and Estuary and dune lakes and wetlands. Vegetation management also includes removal of emergent vegetation and debris, as necessary to improve potential CRLF habitat, which will also improve WSF habitat.
Natural Resources Management: Water Quality Monitoring Projects **(CA-19)**
Potential Effects: Individuals exposed to increased turbidity; Individuals and/or egg clusters disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Campground Maintenance **(CA-20)**
Potential Effect: Dispersing individuals crushed/injured.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 34** Mowing of campgrounds and golf course will be limited to the maximum area necessary to provide for safe public access and limited to public use areas. Care will be taken to avoid mowing wetland areas, wetland vegetation, and in proximity to riparian vegetation to avoid aestivating or dispersing WSF. Mowing activities will be adjusted as new information becomes available on the dispersal and habits of WSF in the covered lands. **AMM 35** If a WSF is observed during maintenance activities, the activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities can continue with minimal risk to the safety of individual WSF. They may also employ exclusion fencing, biological monitoring, and/or other measures where appropriate.
Park Maintenance: General Facilities Maintenance **(CA-21)**
Potential Effect: Individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Routine Riparian Maintenance **(CA-26)**
Potential Effect: Individuals and egg clusters crushed/injured/disturbed.

Table B-5. Avoidance and Minimization Measures for WSF
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 36** Culvert maintenance will be conducted during periods when all WSF life stages are unlikely to occur in the project area (e.g., May 1 – Oct. 31 or until the first measurable fall rain of 1" or greater), to the extent feasible. **AMM 37** If work must be conducted during the WSF breeding season, a qualified biologist/Natural Resource staff will determine whether to conduct focused surveys of the work sites. Such surveys would be conducted no more than 2 days before the onset of activities associated with projects within suitable breeding habitat for WSF (e.g., culvert maintenance). If WSF adults, tadpoles, or eggs are found, work will not commence until AMMs are in place. AMMS can include such measures as relocation, exclusion fencing with additional monitoring to prevent take along fenceline, and/or biological monitoring during maintenance activities. **AMM 38** WSF life-stages found in the work area will be relocated upon determination by the qualified biologist/Natural Resource staff that an appropriate relocation site exists, and relocation is the preferred avoidance method. They will be allowed sufficient time to move WSF from the work site before activities begin. Only those qualified will participate in activities associated with capturing, handling, and monitoring WSF. They will follow safe-handling practices as outlined in the Declining Amphibians Population Task Force Code of Practice. **AMM 39** Heavy equipment will continue to be operated from the roadside or upper banks and will not be placed in the water body during culvert maintenance. Backhoe work will continue to be restricted to the roadside or upper bank and only the bucket may be placed in the water body. **AMM 40** CDPR staff will continue to limit the amount of disturbance to vegetation, banks, and streambed. Work and entrance into the work area will continue to be restricted to established areas. **AMM 41** All refueling, maintenance, and staging of equipment and vehicles will continue to occur at least 60 feet from riparian habitat and water bodies in a location where a spill will not drain directly toward aquatic habitat. **AMM 42** All vehicles and equipment will continue to be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. Prior to the start of maintenance activities, all equipment will continue to be inspected for leaks. **AMM 43** A spill plan will continue to be in place for prompt and effective response to an accidental spill. The spill plan will continue to include, at a minimum, immediately notifying the biologist of any hazardous spills and immediately cleaning up spills. All Park staff will continue to be informed of the importance of preventing spills and appropriate measures to take when a spill happens. **AMM 44** All equipment and vehicles under-carriages will continue to be inspected periodically. Equipment that has been parked near potentially occupied WSF habitat will be re-inspected prior to moving.
Potential Effect: Individuals exposed to increased predation.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Potential Effect: Individuals exposed to increased turbidity; Individuals exposed to increased risk of spread of disease; Temporary disturbance of approximately 0.3 acre of wetlands.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Perimeter and Vegetation Island Fence Installation, Maintenance, and Removal **(CA-27)**
Potential Effect: Individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Heavy Equipment Response **(CA-29)**
Potential Effect: Individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Minor Grading **(CA-30)**
Potential Effect: Individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Boardwalk and Other Pedestrian Access Maintenance **(CA-31)**
Potential Effect: Individuals disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 45** Crews will continue to use hand tools to trim all vegetation.
Visitor Services: Emergency Response **(CA-33)**
Potential Effects: Individuals struck by vehicles; Breeding and/or dispersal habitat damaged; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as feasible and appropriate.
Visitor Services: Access by Non-CDPR Vehicles **(CA-34)**

Table B-5. Avoidance and Minimization Measures for WSF
Potential Effects: Individuals struck by vehicles; Breeding and/or dispersal habitat damaged; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as feasible and appropriate.
Visitor Services: Pismo State Beach Golf Course Operations **(CA-37)**
Potential Effects: Dispersing individuals injured/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Motorized Vehicle Crossing of Pismo/Carpenter, Arroyo Grande, and Oso Flaco Creeks **(CA-40)**
Potential Effects: Individuals struck by vehicles; Individuals disturbed; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 46** Even though Pismo/Carpenter and Oso Flaco Creeks are closed to the public, CDPR and contractors must still drive across these creeks. CDPR staff will continue to periodically review conditions and identify any issues that may result from vehicle crossings in areas where there is ponded water. If, in the opinion of a qualified biologist/Natural Resource staff, a vehicle crossing would present a threat to any life stages of WSF, staff will close this access until conditions have changed. **AMM 47** When tidal action or stream flow increase ponded areas within Arroyo Grande Creek and Estuary, CDPR will regularly inspect and modify fences to prevent all vehicle activity in ponded water.
Other HCP Covered Activities: Pismo Creek Estuary Seasonal (Floating) Bridge **(CA-41)**
Potential Effects: Individuals disturbed; Individuals exposed to increased turbidity.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Limited Trail Riding Area **(CA-42)**
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 48** CDPR will conduct pre-activity surveys prior to commencing any activities disturbing suitable WSF upland habitat. **AMM 49** Should an aestivating WSF be found during trail construction, all work will stop until a qualified biologist/Natural Resource staff determines work may proceed, including with implementation of AMMs. AMMs may include such measures as relocation, exclusion fencing, transfer to a rehabilitation facility, relocation to a suitable site outside the work area, and/or biological monitoring during activities.
Other HCP Covered Activities: Dust Control Activities **(CA-44)**
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Cultural Resources Management **(CA-45)**
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: CDPR Management of Agricultural Lands **(CA-46)**
Potential Effects: Aestivating and/or dispersing individuals crushed/injured/disturbed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Oso Flaco Lake Boardwalk Replacement **(CA-48)**
Potential Effects: Same as riparian maintenance activities; Potential loss of aquatic habitat; Individuals exposed to increased turbidity; Water quality decreased.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 50** Before any project activities occur, a qualified biologist/Natural Resource staff will conduct a training session for all construction personnel. At a minimum, the training will include a description of the WSF and its habitat, the importance of the WSF and its habitat, the general measures that are being implemented to conserve the WSF as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided a qualified person is on hand to answer any questions. **AMM 51** The construction footprint will be limited as much as possible, with all construction areas including access and staging areas clearly demarcated. **AMM 52** As feasible, boardwalk replacement will be constructed during a period when egg clusters are unlikely to occur in the project area. A qualified biologist/Natural Resource staff will survey the work site ≤2 days before the onset of activities. If WSF adults, tadpoles, or eggs are found, work will not commence until avoidance measures are in place. **AMM 53** Any WSF life-stages found in the project work area may be relocated upon determination by the qualified biologist/Natural Resource staff that an appropriate relocation site exists and relocation is the preferred avoidance method. The biologist will be allowed sufficient time to move WSF from the work site before work activities begin. Only qualified biologists/Natural Resource staff will participate in activities associated with the capture, handling, and monitoring of WSF.

Table B-5. Avoidance and Minimization Measures for WSF	
AMM 54	A qualified biologist/Natural Resource staff will be present at the work site, as needed, or until the removal or protection of all WSF, instruction of workers, and habitat disturbance have been completed. After this time, the contractor or permittee will designate a person to monitor on-site compliance with all minimization measures. The qualified biologist/Natural Resource staff will ensure that this individual receives training. The training, at a minimum, will cover identification and life history of WSF and work constraints. The monitor and the qualified staff will have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USFWS.
AMM 55	As practical, pile driving will always use a soft start procedure. The soft start would include an initial set of three strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period. This process will be repeated a total of three times prior to initiation of pile driving. Soft start is required for any impact driving, including at the beginning of the day and at any time following a cessation of impact pile driving of 30 minutes or longer.
AMM 56	Whenever feasible, a vibratory hammer will be used.
AMM 57	CDPR will comply with all permit requirements, including best management practices to minimize sediment impacts.
Other HCP Covered Activities: Special Projects **(CA-49)**	
Potential Effects: Permanent and/or temporary loss of upland habitat; Individuals crushed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Other HCP Covered Activities: Use of Pesticides **(CA-51)**	
Potential Effects: Disturbance of habitat; Exposure from contact with contaminated prey or vegetation; Exposure from contact with residues; inhalation of vapors.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 58	Any application of herbicide or pesticide in aquatic habitat will be consistent with the Aquatic Pesticide Application Plan (APAP) and will be designed to achieve control of pests or exotic species while protecting water quality and aquatic organisms.
AMM 59	When pesticide application must occur near WSF breeding habitat, a qualified biologist/Natural Resource staff will conduct a survey for WSF as practical prior to the application and will instruct the work crew on their identification and biology. If WSF is observed, all work will cease immediately until the CDPR biologist arrives and assesses the situation to determine if the work can proceed.
AMM 60	Pesticides will continue to be applied at wind speeds below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side.
AMM 61	Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or NWS forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application.
AMM 62	CDPR will continue to ensure that all workers are trained in the safe and effective use of pesticides in sensitive habitats.
AMM 63	CDPR will continue to ensure that qualified personnel are present at all phases of the work to ensure that pesticide application activities do not result in impacts to covered species.
AMM 64	If pesticides are spilled, they will continue to be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and are familiar with the use of absorbent materials. Spills will continue to be cleaned according to label instructions, and all equipment used to remove spills will be properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements.
AMM 65	Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information.
AMM 66	CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made.
AMM 67	All herbicide applications will continue to be made according to the product label in accordance with regulations of the EPA, CalEPA, Cal OSHA, DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.

Table B-6. Avoidance and Minimization Measures for Tidewater Goby
General AMMs
AMM 1 CDPR will continue to provide educational content on the Oceano Dunes SVRA and Pismo State Beach websites and social media. Content may include life history information, measures being taken to protect all HCP covered species found at the parks, and the importance of not touching or disturbing covered species. Information will be updated as needed and visitors can visit campground kiosks or interpretive events for additional information such as what they can do to protect the covered species. Covered species information will also be included as part of ongoing interpretative programs.
AMM 2 Once per year, a qualified biologist/Natural Resource staff will conduct a training session for all CDPR personnel, concessions, and lessees. The training, at a minimum, will cover tidewater goby life history and work constraints. The training session will be repeated for any new personnel at the work site or where conditions at a particular project site warrants additional training.
AMM 3 Per Public Resources Code and CDPR Policy, CDPR will prohibit the release of mosquitofish or any other non-native aquatic organism into aquatic habitat.
AMM 4 CDPR will continue to implement management measures and modify AMMs in accordance with ongoing adaptive management and based on recommendations found in annual monitoring reports.
Park Visitor Activities: Motorized Recreation **(CA-1)**
Potential Effects: Individuals disturbed/crushed/injured.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 5 The Arroyo Grande Creek and Estuary and areas west of the estuary where waters have pooled will continue to be posted 'closed' to motor vehicle access.
AMM 6 Pursuant to Superintendent's Order, visitors will continue to be prohibited from crossing Arroyo Grande Creek in any other manner than by crossing the creek as close to the ocean waterline as possible and parallel to the ocean waterline. Driving upstream or downstream in the creek channel or in any other manner in the creek channel will continue to be prohibited. Vehicles will continue to be prohibited from crossing the creek when the water depth exceeds 12 inches.
AMM 7 Crossing of Arroyo Grande Creek by motor vehicles will continue to be regulated by park Visitor Services and Ranger staff daily during periods of high stream flow and periods of high stream flow in combination with high tides. Creek crossings may be restricted or closed at any time, depending on these conditions. Rangers will continue to take enforcement action, where appropriate.
AMM 8 Specific guidelines for closure of Arroyo Grande Creek to vehicular crossings by the public will continue to be implemented.
AMM 9 As necessary, after major flows or other natural events that change the physical habitat characteristics of the lagoons, CDPR staff will continue to modify the alignment of fencing closing the area to motor vehicles to prevent vehicle access into pooled areas that could support tidewater goby.
Park Visitor Activities: Pedestrian Activities **(CA-3)**
Potential Effects: Individuals disturbed; Burrows collapsed; Individuals exposed to increased turbidity; Individuals exposed to increased predation; Foraging activities and reproductive success reduced.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 10 As practical, the ponded areas of Arroyo Grande Creek and Estuary, Pismo Creek, or Carpenter Creek estuaries will be closed to the public.
AMM 11 CDPR will continue to monitor areas where pedestrians enter potential tidewater goby habitat. If tidewater gobies are observed in or near such locations, CDPR will post signs closing the area or take other action determined by the qualified biologist/Natural Resource staff as necessary to avoid harm to them or their habitat.
AMM 12 CDPR will continue to pursue installing the seasonal floating bridge (CA-41) across the Pismo Creek Lagoon if it is found to be beneficial and feasible.
Park Visitor Activities: Dog Walking **(CA-6)**
Potential Effects: Individuals disturbed; Individuals exposed to increased turbidity; Water quality decreased by depositing waste and/or trampling vegetation; Individuals exposed to increased predation; Foraging activities and reproductive success reduced.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
AMM 13 Dogs will continue to be required to be on a leash no longer than 6 feet at all times and under complete control of the owner within the HCP area.
AMM 14 Waste bags will continue to be provided in the HCP area to encourage pet owners to pick up dog waste.
AMM 15 As funding and staff time are available, CDPR will continue to manually remove litter and garbage from tidewater goby habitat.
Park Visitor Activities: Equestrian Recreation **(CA-7)**

Table B-6. Avoidance and Minimization Measures for Tidewater Goby	
Potential Effects: Individuals disturbed/injured; Burrows collapsed; Individuals exposed to increased turbidity; Water quality decreased due to depositing waste and/or trampling vegetation; Foraging activities and reproductive success reduced.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Park Visitor Activities: Holidays **(CA-10)**	
Potential Effects: Effects for all covered activities on holidays are not expected to be different from those on non-holidays.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 16	During anticipated high visitor use periods as determined by historic visitor-attendance records (e.g., Memorial Day Weekend, July 4 Weekend, Labor Day Weekend) Natural Resource and Visitor Service staff will continue to provide frequent observations of the vehicle/pedestrian crossing areas at Arroyo Grande Creek, Carpenter Creek, and Pismo Creek.
Park Visitor Activities: Special Events **(CA-11)**	
Potential Effects: Effects based on the specific event activity(ies) permitted.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 17	All permits authorizing special events will continue to include AMMs to reduce disturbance to tidewater goby. Specific AMM recommendations will be based on past experience and dependent on the event location, timing, and potential to impact covered species.
Natural Resources Management: Tidewater Goby and Salmonid Surveys **(CA-13)**	
Potential Effects: Individuals exposed to increased turbidity; Individuals and egg burrows disturbed; Individuals captured/injured/killed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 18	A USFWS- and/or NOAA Fisheries-approved biologist will continue to conduct the surveys.
AMM 19	Surveys will continue to be conducted in accordance with the survey guidelines in Appendix F of the tidewater goby recovery plan for the species (USFWS, 2005a) or in accordance with any subsequent revisions USFWS or NOAA may develop during the permit term.
AMM 20	The USFWS- and/or NOAA Fisheries-approved biologist will continue to use minnow traps, dipnets, seine nets, and other nets that are of appropriate mesh size.
AMM 21	Disturbance and damage to burrows, eggs, and young will continue to be minimized through the use of the smallest seines and lightest seine weights practicable.
AMM 22	Any tidewater goby exhibiting signs of stress will continue to be immediately released at the capture location.
AMM 23	Dipnetting and seining will continue to be limited to no more than 40 percent of the project area, excluding stream channels, unless the surveys are to be conducted during the breeding season (generally April through mid-June). Seining during the breeding season will continue to be limited to affect no more than 20 percent of the habitat.
AMM 24	Prior to activities that may involve handling tidewater gobies, the surveyor(s) will continue to ensure that hands are free of sunscreens, lotion, nicotine, and insect repellent.
AMM 25	No electrofishing will continue to occur in tidewater goby habitat. If electrofishing is authorized for salmonid surveys, and tidewater gobies are subsequently found in an area they were previously not known to occur, electrofishing will continue to cease immediately.
AMM 26	To prevent the introduction of new invasive animal and plant species, all CDPR staff and/or contractors will continue to be required to ensure that work boots, vehicles, and equipment that enter the water have been cleaned.
AMM 27	CDPR will continue to conduct fisheries surveys to follow, document, and report on the likely future recolonization of restored wetted areas by several aquatic species, including tidewater goby. This information will continue to be provided to resource agencies and used to contribute to the recovery of tidewater goby.
AMM 28	To reduce predation from invasive species, qualified biologists/Natural Resource staff and consultants working under CDPR's 10(a)(1)(A) Recovery Permit (or approved by USFWS) will euthanize invasive species (e.g., bullfrog, mosquitofish, largemouth bass, and crayfish) incidentally encountered during fisheries and herpetological surveys, which will also reduce predation on tidewater goby.
AMM 29	CDPR will continue to monitor populations of invasive predators during fisheries and herpetological surveys. As needed, CDPR will control invasive predators to offset impacts as outlined in the tidewater goby Goals and Objectives (Section 5.2.7).
Potential Effects: Individuals exposed to increased risk of disease	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 30	Surveyors will continue to follow the USFWS Recommended Equipment Decontamination Procedures, which provides guidance for disinfecting equipment and clothing after entering a pond and before entering an aquatic resource.
Natural Resources Management: Herpetological Monitoring and Management **(CA-14)**	
Potential Effects: Egg burrows disturbed; Individuals captured/injured/killed; Individuals exposed to increased turbidity.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	

Table B-6. Avoidance and Minimization Measures for Tidewater Goby	
AMM 31	When possible and appropriate, eyeshine surveys for CRLF will continue to be conducted to minimize disturbance to tidewater gobies and their habitat.
AMM 32	Dipnet surveys, if conducted in the HCP area, will be conducted in a manner that minimizes disturbance to aquatic habitat that could overlap with tidewater goby habitat.
Natural Resources Management: Listed Plant Management Activities **(CA-15)**	
Potential Effects: Individuals exposed to increased turbidity.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 33	Best Management Practices will be employed where needed to reduce turbidity from work in aquatic habitat.
AMM 34	Any time a work activity will need to be conducted on the bed, banks, or channel of aquatic habitat with the potential to support tidewater goby, appropriate steps will continue to be taken to minimize turbidity from activities. If possible, activities will continue to be conducted from outside the wetted area or from stream banks or other upland areas. If activity is necessary in wetted areas, work will continue to be limited to the maximum necessary to achieve desired outcome and care will be taken to reduce turbidity.
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**	
Potential Effects: Individuals exposed to increased turbidity; Individuals disturbed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 35	To prevent erosion and sedimentation, vegetation removal and bank disturbance will continue to be kept to the minimum amount necessary to complete the task.
AMM 36	Activities within tidewater goby habitat will continue to be avoided, if possible, or kept to a minimum. If activities require that personnel work in the water, only one person will enter the water while the remaining personnel conduct work from land.
AMM 37	Precautions will continue to be taken to avoid damage to non-target vegetation.
AMM 38	As funding and staff resources allow, CDPR will continue to eradicate or reduce the cover, biomass, and distribution of non-native invasive plants to enhance tidewater goby habitat. Routine vegetation management will continue to occur at Oso Flaco area, Meadow Creek, and Pismo Lake spillway. Other areas where vegetation management may occur include Arroyo Grande Creek and Estuary. Vegetation management also includes removal of emergent vegetation and debris, as necessary to improve potential tidewater goby habitat.
Natural Resources Management: Water Quality Monitoring Projects **(CA-19)**	
Potential Effects: Individuals exposed to increased turbidity; Individuals disturbed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 39	CDPR will continue to work with public agencies, landowners, and stakeholders to secure a sustained water inflow into the estuary, focused on sustainable groundwater use and maintenance of instream flows in the lower mile of Arroyo Grande Creek.
AMM 40	CDPR will work with the County on their operations and maintenance of the Sand Canyon Flapgate to minimize impacts to goby from sediment, invasive aquatic species, and other similar threats.

Table B-6. Avoidance and Minimization Measures for Tidewater Goby	
Park Maintenance: Routine Riparian Maintenance **(CA-26)**	
Potential Effect: Individuals exposed to increased turbidity; Individuals/egg burrows disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 41	If activities are proposed near occupied tidewater goby habitat, as feasible, CDPR staff will continue to limit project activities in the channel and along stream banks to the drier period of the year (generally May 1 to December 1) or when the stream is not actively flowing, or at its lowest flow, and when there is no measurable rain forecasted within 48 hours of work activities.
AMM 42	A USFWS-approved biologist will conduct focused surveys of the work sites no more than 2 weeks before the onset of activities associated with projects within suitable habitat for tidewater goby (e.g., culvert maintenance). If tidewater gobies are found, work will not commence until AMMs are in place.
AMM 43	Activities and entrance into the work area will continue to be restricted to established areas.
AMM 44	A USFWS-approved biologist will continue to conduct a pre-activity survey for tidewater goby in occupied tidewater goby habitat prior to commencing activities. If tidewater goby is observed in the work area or water is present in the work area and it cannot be determined if tidewater gobies are present, the qualified biologist/Natural Resource staff will continue to determine the appropriate measures taken to protect the tidewater goby population. These measures could include, but are not limited to, establishing fencing or otherwise demarcating a barrier between the work site and the tidewater goby population and/or relocation by a USFWS-approved biologist.
AMM 45	Heavy equipment will continue to be operated from the roadside or upper banks and will not be placed in the water body during culvert maintenance. Backhoe work will continue to be restricted to the roadside or upper bank and only the bucket may be placed in the water body.
AMM 46	CDPR staff will continue to limit the amount of disturbance to vegetation, banks, and streambed. Work and entrance into the work area will continue to be restricted to established areas.
AMM 47	All refueling, maintenance, and staging of equipment and vehicles will continue to occur at least 60 feet from riparian habitat and water bodies in a location where a spill will not drain directly toward aquatic habitat.
AMM 48	A spill plan will continue to be in place for prompt and effective response to an accidental spill. The spill plan will continue to include, at a minimum, immediately notifying the biologist of any hazardous spills and immediately cleaning up spills. All Park staff will continue to be informed of the importance of preventing spills and appropriate measures to take when a spill happens.
AMM 49	All equipment and vehicles under-carriages will continue to be inspected periodically. Equipment that has been parked near potentially occupied tidewater goby habitat will be re-inspected prior to moving.
Park Maintenance: Heavy Equipment Response **(CA-29)**	
Potential Effect: Individuals exposed to increased turbidity; Individuals disturbed/crushed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 50	Heavy equipment will operate from existing roads or top of bank whenever possible, avoiding ponded areas.
Park Maintenance: Minor Grading (less than 50 cubic yards) **(CA-30)**	
Potential Effect: Individuals exposed to increased turbidity; Individuals disturbed/crushed/injured.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 51	Heavy equipment will continue to operate outside of ponded water during any minor grading activities. Heavy equipment will operate from existing roads or top of bank whenever possible.
Visitor Services: Ranger, Lifeguard, and Park Aide Patrols **(CA-32)**	
Potential Effects: Individuals disturbed/crushed/injured; Water quality decreased.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
Visitor Services: Emergency Response **(CA-33)**	
Potential Effects: Habitat damaged; Individuals exposed to increased turbidity.	
Avoidance and Minimization Measures: All AMMs apply, as feasible and applicable.	
Visitor Services: Access by Non-CDPR Vehicles **(CA-34)**	
Potential Effects: Habitat damaged; Individuals exposed to increased turbidity.	
Avoidance and Minimization Measures: All AMMs apply, as feasible and applicable.	
Other HCP Covered Activities: Motorized Vehicle Crossing of Pismo/Carpenter, Arroyo Grande, and Oso Flaco Creeks **(CA-40)**	
Potential Effects: Individuals disturbed/crushed/injured; Water quality decreased.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 52	Even though Pismo/Carpenter and Oso Flaco Creeks are closed to the public, CDPR and contractors must still drive across these creeks. CDPR staff will continue to periodically review conditions and identify any issues that may result from vehicle crossings in areas where there is ponded water. If, in the opinion of a qualified biologist/Natural Resource staff, a vehicle crossing would present a threat to tidewater goby, staff will close this access until conditions have changed.

Table B-6. Avoidance and Minimization Measures for Tidewater Goby	
AMM 53	When tidal action or stream flow increase ponded areas within Arroyo Grande Creek and Estuary, CDPR will regularly inspect and modify fences to prevent all vehicle activity in ponded water.
Other HCP Covered Activities: Pismo Creek Estuary Seasonal (Floating) Bridge **(CA-41)**	
Potential Effects: Individuals disturbed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 54	To allow movement of all fish species as well as an exchange of fresh and saltwater, the interlocking pieces of the bridge will be constructed to create wide openings under the bridge. Openings will be designed as wide as possible while maintaining structural integrity to ensure water flow even when the bridge sits on the bed of the estuary during low flows.
AMM 55	If water levels are so low that the bridge is not allowing the free movement of fish in the estuary, the bridge will be removed until there is sufficient water to allow the bridge to float.
Other HCP Covered Activities: Use of Pesticides **(CA-51)**	
Potential Effects: Habitat disturbance; Exposure from contact with contaminated prey or vegetation; Exposure from contact with residues.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 56	Any application of herbicide or pesticide in aquatic habitat will be consistent with the Aquatic Pesticide Application Plan (APAP) and will be designed to achieve control of pests or exotic species while protecting water quality and aquatic organisms.
AMM 57	When pesticide application must occur near tidewater goby habitat, a qualified biologist/Natural Resource staff will conduct a survey for tidewater goby as practical prior to the application and will instruct the work crew on their identification and biology. If tidewater goby is observed, all work will cease immediately until the qualified staff arrives and assesses the situation to determine if the work can proceed.
AMM 58	Herbicides used in tidewater goby habitat will be limited to those designed for aquatic applications and will continue to be applied directly to target species on a low or receding tide when water is not present, so residual amounts that may reach the water on the returning tide are small and rapidly diluted.
AMM 59	Pesticides will continue to be applied at wind speeds below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side.
AMM 60	Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or NWS forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application.
AMM 61	CDPR will continue to ensure that all workers are trained in the safe and effective use of herbicides in sensitive habitats.
AMM 62	CDPR will continue to ensure that qualified personnel are present at all phases of the work to ensure that herbicide application activities do not result in impacts to covered species.
AMM 63	If pesticides are spilled, they will be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and will be familiar with the use of absorbent materials. Spills will be cleaned up according to label instructions, and all equipment used to remove spills will be properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements.
AMM 64	Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information.
AMM 65	CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made.
AMM 66	All herbicide applications will continue to be made according to the product label in accordance with regulations of the EPA, CalEPA, Cal OSHA, DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.

Table B-7. Avoidance and Minimization Measures for Plants	
Park Visitor Activities: Pedestrian Activities **(CA-3)**	
Potential Effects: Beach spectaclepod, surf thistle, and La Graciosa thistle trampled.	
Avoidance and Minimization Measures:	
AMM 1	CDPR will continue to provide educational content on the Oceano Dunes SVRA and Pismo State Beach websites including life history information and measures being taken to protect all HCP covered species found at the parks. Information can be updated as needed and visitors can find out what the parks are doing and what they can do to protect the covered species. Covered species information will continue to be included as part of ongoing interpretative programs as well.
AMM 2	In areas where the public is allowed in occupied habitat, plants will continue to be fenced to deter pedestrians from entering the sensitive areas. If a population is found where there is heavy public activity like the Dune Preserve or Grand Dunes areas, fencing and signage will continue to be installed.
AMM 3	Informal trails in and adjacent to listed plant species habitats will continue to be closed and restored to original conditions.
AMM 4	Habitat restoration will continue to be conducted to benefit beach spectaclepod, surf thistle, and La Graciosa thistle.
AMM 5	A program of selective propagation of specific listed plant species to augment existing populations and adjacent unoccupied habitats will be developed if monitoring shows CDPR or public activities negatively impacting individuals or populations.
AMM 6	CDPR will continue to implement management measures and modify protocols in accordance with ongoing adaptive management and based on recommendations in annual monitoring reports.
Natural Resources Management: Listed Plant Management Activities **(CA-15)**	
Potential Effects: Plants trampled/crushed.	
Avoidance and Minimization Measures:	
AMM 7	Staff with specific training in the identification of listed plant species will continue to survey areas with known populations. Surveys will continue to be conducted annually or as necessary based on the level of management needed.
AMM 8	Prior to the onset of activities that could affect listed plant habitat, a qualified biologist/Natural Resource staff will continue to conduct a training session for all personnel. At a minimum, the training will continue to include a description of relevant plants and their habitat and AMMs that should be implemented. The training session will continue to be repeated for any new personnel.
AMM 9	Staff will continue to be urged to limit time in occupied habitat to reduce the potential for trampling listed plants. CDPR staff will continue to limit the amount of disturbance to vegetation to the minimum necessary to complete the project. Work and entrance into the work area will continue to be restricted to established areas.
AMM 10	Water quality monitoring and improvement projects will continue to be conducted to benefit marsh sandwort and Gambel's watercress.
AMM 11	Only grass specific herbicides will be used in areas where listed broadleaf listed species are present and may be exposed to the herbicide
AMM 12	Only post-emergent herbicides will be used within occupied habitat and/or mapped historic locations for listed species to prevent negative impacts to seed bank germination.
Potential Effects: Plants burned during prescribed fire activities for listed species management.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.**	
AMM 13	Prior to initiating a prescribed burn, populations of listed plant species will continue to be clearly marked on the ground, and non-native vegetation will be pulled by hand to establish a fire line of mineral soil around all known populations of listed plant species. The fire line will continue to be the minimum necessary to protect known listed plant populations.
AMM 14	Fire personnel, pesticide applicators, and restoration crews will continue to receive training prior to activities. The training will continue to include information regarding identification of listed plant species, the life history of listed species, instructions to avoid damage to listed species, and the need to remain out of the restricted areas and within the work areas and access routes.
AMM 15	Heavy equipment, including fire engines and pumper trucks, will continue to be located outside of sensitive habitat. Locations for the placement and staging of heavy equipment are always clearly marked on a map, as well as on the ground.
AMM 16	A trained botanist will continue to be present during fire activities. The monitor will have the authority and responsibility to stop work if unanticipated damage to listed plant species occurs.
Natural Resources Management: Habitat Restoration Program (CA-16)	
Potential Effects: Plants trampled/crushed.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 17	Prior to conducting project activities, the project area will continue to be surveyed by a trained botanist for listed plant species. Every effort will be made to locate populations of listed plant species, identify their location on a map, and clearly mark their locations on the ground before work crews and equipment are allowed in the project area.

Table B-7. Avoidance and Minimization Measures for Plants
AMM 18 If listed species are found within 100 feet of surface-disturbing activities, they will continue to be avoided by a marked and/or fenced buffer of 25 feet within the project area or other distance as identified by the qualified botanist. Fencing and/or flagging will be removed at the completion of activities. **AMM 19** If plants are found during pre-activity surveys and cannot be avoided, plants will continue to be salvaged and relocated.
Natural Resources Management: Invasive Plant and Animal Control **(CA-17)**
Potential Effects: Plants trampled/crushed; Plants burned during prescribed fire activities during non-listed species management; Plants sprayed during herbicide application.
Avoidance and Minimization Measures: All AMMs apply, as appropriate**.** **AMM 20** Only workers with specific training in the identification of listed plant species will continue to work in areas with known populations. **AMM 21** Non-native vegetation will continue to be cleared by hand and/or with herbicide, using experienced herbicide applicators, within and near listed plant populations. Herbicide application will typically be used sparingly and will be done under the close supervision of an experienced botanist. **AMM 22** Attention will be given to access corridors, treatment sites that include on-the-ground activities, and previously known populations of listed plants. **AMM 23** Trained resource personnel will continue to be present at all phases of the work to ensure that activities will not result in damage to listed species. **AMM 24** Records will continue to be kept of all invasive plant and animal control management activities. These records will continue to include an assessment of the target invasive plant population, treatment employed, location of area treated, supervisor of treatment, date of treatment, amount of pesticides used, and weather conditions during treatment.
Park Maintenance: Routine Riparian Maintenance **(CA-26)**
Potential Effects: La Graciosa thistle, Gambel's watercress, and marsh sandwort damaged.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 25** When necessary and appropriate, a qualified botanist will continue to conduct pre-activity surveys to confirm absence of marsh sandwort, La Graciosa thistle, and Gambel's watercress prior to commencing ground-disturbing activities in potential habitat areas. If the plants are found during pre-activity surveys, including any Gambel's watercress hybrids, the botanist will flag the area inform all workers of the need to stay out of flagged area.
Park Maintenance: Heavy Equipment Response in all Areas of SVRA of Oceano Dunes District **(CA-29)**
Potential Effects: Plants trampled/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Minor Grading (less than 50 cubic yards) **(CA-30)**
Potential Effects: Plants trampled/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Park Maintenance: Boardwalk and Other Pedestrian Access Maintenance **(CA-31)**
Potential Effects: Plants trampled/crushed; Plants uprooted/removed; Temporary loss of habitat.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Visitor Services: Emergency Response **(CA-33)**
Potential Effects: Plants trampled/crushed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Limited Trail Riding Area **(CA-42)**
Potential Effects: Loss or degradation of potentially suitable habitat.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 26** All trails and other areas open to vehicles will be sited with adequate buffers from any occurrences of listed plants.
Other HCP Covered Activities: Cultural Resources Management **(CA-45)**
Potential Effects: Plants uprooted/damaged/removed.
Avoidance and Minimization Measures: All AMMs apply, as appropriate. **AMM 27** Plant populations will continue to be restored if a cultural resource project disturbs or destroys a plant population.
Other HCP Covered Activities: Oso Flaco Lake Boardwalk Replacement **(CA-48)**
Potential Effects: Plants trampled/damaged/removed. Temporary reduction in water quality.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Special Projects **(CA-49)**
Potential Effects: Permanent and/or temporary loss of potentially suitable habitat.
Avoidance and Minimization Measures: All AMMs apply, as appropriate.
Other HCP Covered Activities: Use of Pesticides **(CA-51)**

Table B-7. Avoidance and Minimization Measures for Plants	
Potential Effects: Habitat disturbance; Exposure to contaminated water and residues; Direct exposure to chemicals.	
Avoidance and Minimization Measures: All AMMs apply, as appropriate.	
AMM 28	CDPR will continue to ensure that formal surveys are conducted for the covered plant species prior to work commencing on the project site. Surveys will continue to be conducted by trained botanists and field assistants. Since population numbers are relatively low, surveys focus on determining the location, distribution, and abundance of covered species. CDPR will continue to ensure that all covered species locations are flagged to alert workers of their presence. Authorized staging areas and access routes will continue to be flagged. All equipment and labor crews will continue to remain in staging areas staging areas or on the designated access routes to reduce the potential for impacts to covered plant species and their habitat.
AMM 29	After treatments are initiated, additional surveys will continue to be conducted to identify new populations of covered plants. Regular monitoring of the treatment area will continue to determine the effects of the treatments on the existing populations and their habitat.
AMM 30	Pesticides will continue to be applied at wind speeds below 10 mph at the perimeter of the application site as measured by an anemometer on the upwind side.
AMM 31	Pesticide application will continue to be postponed if soil moisture is at field capacity and NOAA or NWS forecasts a storm event will occur within 48 hours following application; or NOAA/NWS forecasts a storm event likely to produce runoff from the treated area will occur within 48 hours following the application.
AMM 32	CDPR will continue to avoid occupied covered plant habitat, as feasible. If covered plant habitat must be impacted, CDPR will continue to establish a buffer zone of no less than 15 feet (but typically 25 feet) around individual covered plant species identified during surveys, as feasible. Only hand-weeding will continue to be permitted in these buffer zones. If a buffer cannot be implemented, CDPR will continue to take appropriate precautions, as determined by a qualified biologist/Natural Resource staff. Precautions can include timing the herbicide activities so that they occur prior to the covered plant blooming period, using a monocot focused herbicide, and/or having an experienced herbicide applicator conduct the activities under the direction of a qualified botanist.
AMM 33	CDPR will continue to only allow trained, skilled botanists to enter areas where covered plant species occur during treatments.
AMM 34	CDPR will continue to ensure that pesticide applications near known populations of the covered plant species are conducted under the direction of a qualified biologist/Natural Resource staff.
AMM 35	CDPR will continue to ensure that all workers are trained to identify covered plant species that may occur at project site prior to work commencing on site. CDPR will continue to instruct workers how to avoid inadvertent adverse impacts to these species.
AMM 36	CDPR will continue to ensure that all workers are trained in the safe and effective use of herbicides in sensitive habitats.
AMM 37	CDPR will continue to ensure that trained resource personnel are present at all phases of the work to ensure that herbicide application activities do not result in impacts to covered species.
AMM 38	If herbicides are spilled, they will be prevented from entering any water bodies to the extent practicable. CDPR staff and contractors will continue to be trained to contain any spilled material and are familiar with the use of absorbent materials. Spills will continue to be cleaned according to label instructions, and all equipment used to remove spills will be properly contained and disposed of or decontaminated, as appropriate. Applicators will continue to report spills as required by CDPR policy and in a manner consistent with local, state, and federal requirements.
AMM 39	CDPR will continue to take the following steps when using herbicide: ● Prior to treatment, CDPR's PCA or qualified staff will continue to evaluate sites within the HCP area for invasive species removal. Weed populations will continue to be targeted based on site and weather conditions, historic weed growth, or other information. ● CDPR will continue to determine the appropriate method for treating a target area (e.g., manual removal, aerial application, backpack sprayer, truck mounted sprayer). If the application can be made without negatively impacting water quality or covered species, then an application will continue to be made ● All herbicide applications will continue to be made according to the product label in accordance with regulations of the EPA, CalEPA, Cal OSHA, DPR, and the local Agricultural Commissioner. CDPR's PCA and DPR-licensed Qualified Applicator License (QAL) holders will continue to regularly monitor updates and amendments to the label so that applications are in accordance with label directions.

California Department of Parks and Recreation
Resource Services
STANDARD PROJECT REQUIREMENTS (SPRs)

Oceano Dunes District Habitat Conservation Plan (HCP)

The following SPRs applicable to the Oceano Dunes District HCP proposed new covered activities are used by DPR for park projects throughout the statewide park system. Applicable SPRs are built into individual projects as part of each park's internal planning process. As indicated by the brackets, these SPRs are meant to be tailored for each project by filling in text as appropriate. Underlined or strikeout text denotes where SPR text has been modified for implementation clarity and reflects Oceano Dunes District standard practices. Because there are various Natural and Cultural Resource classifications within DPR, the following naming convention is used for anyone qualified who possesses the skills to do a particular task correctly as [Natural Resource Specialist] and [Cultural Resource Specialist]. This naming convention also applies to any qualified and DPR-approved consultant or contractor who possesses the necessary skills and qualifications to do a particular task correctly.

General

- Prior to the start of on-site ~~construction work~~ project activities, [DPR Natural and/or Cultural Resource Specialists] will consult with the contractor and project manager to identify all resources that must be protected.
- Prior to the start of on-site ~~construction work~~ project activities, a DPR-~~qualified~~ [Natural and/or Cultural] Resources Specialist will train ~~construction~~ project personnel in [applicable] Resource identification and protection procedures.
- Prior to the start of on-site project activities ~~construction work~~, and at the discretion of a [DPR Natural Resources Specialist], a DPR-approved biologist will flag and/or fence all [sensitive biological resources to be avoided including burrowing owl burrows, occupied American badger dens, active bird nests, and maternity or colony bat roosts] with a buffer of [a minimum of 50-feet, which may be increased as needed depending on the species], for avoidance during on-site ~~construction~~ project activities. The [Natural Resources Specialist] will remove the fencing after project completion or if the burrow, den, nest, or roost is no longer occupied.
- Prior to any earthmoving activities, a DPR-qualified [Natural Resources Specialist] will approve all subsurface work, including the operation of heavy equipment within [50 feet] of the identified Environmentally Sensitive Area (ESA).
- Prior to the start of [new or future earth moving or other project site disturbance] work, the [Project Manager] will notify the [Oceano Dunes District Superintendent] or [Natural or Cultural Resources Specialist] a minimum of three weeks in advance, unless other arrangements are made, to schedule [surveys and biological or cultural resource] monitoring.
- A DPR-qualified [Natural Resources and/or Cultural Resource Specialist] will monitor all ground disturbing phases of this project at his/her discretion.

Cultural Resources

General Cultural Standard Requirements

- Prior to the start of on-site project activities ~~construction work~~, and to the extent not already completed, a [Cultural Resource Specialist] will map and record all cultural features within the proposed Area of Potential Effects (APE) to a level appropriate to the Secretary of Interior Standards.
- Prior to the start of on-site project activities ~~construction work~~, the [Project Manager] will notify the Cultural Resources Supervisor, unless other arrangements are made in advance, a minimum of three weeks to schedule a Cultural Resource Specialist to monitor work, as necessary, to ensure that ~~removal and reconstruction of historic fabric~~ treatment of known cultural resources will occur in a manner consistent with the Secretary of the Interior's Standards.
- If previously identified during the planning process as necessary~~Before, during, and after construction~~, a [Cultural Resource Specialist] will photo-document all aspects of the project, before, during, and after project activities ~~construction,~~ and will add the photos to the historical records (archives) for the park.

~~Historian's Standard Requirements~~

- As needed, a~~A~~ [Cultural Resource Specialist] familiar with the project site's cultural/tribal cultural/historic resources will monitor all project ~~construction~~ activities. Where appropriate and as requested through tribal consultation, a Native American monitor will be present during ground disturbing construction activity. All cultural/tribal cultural/historical resources uncovered during the project will be recorded in place with a photograph and/or drawing showing any new material or recovered and archived at the discretion of the monitor.

Archaeologist's Standard Requirements

- Prior to the start of any ground-disturbing activities, a DPR-approved archaeologist will complete pre-project~~construction~~ testing to determine specific avoidance areas.
    - If necessary, a DPR-qualified Cultural Resource Specialist will prepare a research design, including appropriate trenching and/or pre-project~~construction~~ excavations
    - Based on pre-project~~construction~~ testing, project design and/or implementation will be altered, as necessary, to avoid impacts to archaeological resources or reduce the impacts to a less than significant level, as determined in consultation with a DPR-qualified archaeologist.
- Unless previously flagged by DPR Resource Specialists, [DPR or Contractor] will manually remove or flush cut vegetation to avoid ground-disturbing activities; removal of roots will not be allowed. In areas lacking appropriate archaeological survey coverage only chemical treatments will be allowed unless archaeological surveys are performed first.
- If **anyone** discovers previously undocumented archaeological resources during project ~~construction~~activities, work ~~within~~ [within and adjacent to] ~~of~~ the find will be temporarily halted until the archaeologist designs and implements appropriate treatments in accordance with the Secretary of the Interiors Standards and Guidelines for archaeological resource protection.

- [Oceano Dunes District Superintendent or designee] will modify the project to ensure that project~~construction~~ activities will avoid ~~cultural~~archaeological resources upon review and approval of a [Cultural Resource Specialist].
- If ground disturbing activities uncover intact ~~cultural features~~archaeological sites (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic ash), when a DPR Qualified cultural resources specialist is not on-site, [the Project Manager] will contact the DPR State Representative immediately and [DPR or Contractor] will temporarily halt or divert work within the immediate vicinity of the find until a DPR-qualified cultural resources specialist evaluates the find and determines the appropriate treatment and disposition of the cultural resource.

Human Remains Requirements

- In the event that human remains are discovered on the project site, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The DPR Sector Superintendent (or authorized representative) will notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (or Tribal Representative). If a Native American monitor is on-site at the time of the discovery, the monitor will be responsible for notifying the appropriate Native American authorities. The local County Coroner will make the determination of whether the human bone is of Native American origin.
  - If the Coroner determines the remains represent Native American interment, the NAHC in Sacramento and/or trib~~e~~al representative will be consulted to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination.
  - If it is determined that the find indicates a sacred or religious site, the site will be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representatives will occur as necessary to define additional site mitigation or future restrictions.

Natural Resources

General Biological Resource Standard Project Requirements

- All project activities that could spread [invasive plants or animals] to new locations will be subject to Best Management Practices developed by [a DPR Natural Resources Specialist].
- Prior to the start of on-site project~~construction~~ activities, [a DPR Natural Resources Specialist] will conduct a survey of the project area using appropriate established scientific methods for detection of ~~for~~ [special-status species, nesting birds, roosting bats, and other sensitive habitats or jurisdictional waters in the project area].
- Prior to the start of on-site project~~construction~~ activities, [a DPR Natural Resources Specialist] will determine the minimum area required to complete the work and define the boundaries of

the work area on the project drawings and with flagging or fencing on the ground, as appropriate.[1]

- To prevent the spread of noxious weeds, all project~~construction~~ vehicles and equipment will enter and leave the project site free of soil, vegetative matter or other debris that could contain weed seeds.
- All project activities~~construction~~ will be consistent with the State Parks Trail Manual guidelines, OHV BMP Manual, and Soil Conservation Standard.
- At the discretion of [a DPR Natural Resources Specialist], project activities will be monitored to ensure that impacts to [special-status species, nesting birds, and roosting bats] are minimized. This individual will be familiar with the life history of the protected species with the potential to occur within the work areas and shall be trained in identification of these special-status species that could be encountered during the project and shall have the authority to stop work to avoid impacts on sensitive species.
- As applicable, [a DPR Natural Resources Specialist] will prepare and submit a summary report of all collecting activities conducted at [the project site] to the [Oceano Dunes District Senior Environmental Scientist] upon completion of the project.
- At DPR's discretion, ~~The~~ [DPR or Contractor] will post information signs near project areas with restricted access or closures~~lasting longer than 3 months~~. The signs may~~will~~ include the following information:
  - Explanation for and description of the project; and
  - Anticipated completion date.

Plants

- Best Management Practices (BMPs) to avoid creation of dust will be employed during all project~~construction~~ activities within [50 feet] of [listed/HCP covered plants, and other special-status plants] if feasible.
- As appropriate and applicable to each project, prior to the start of on-site project~~construction~~ activities, a [DPR Natural Resources Specialist] will flag and fence sensitive plant communities (e.g., vegetation series, alliances, or associations) and jurisdictional waters within [50] feet of the project area to avoid impacts.[2]
- No [ground disturbing activities or equipment] will be allowed within [ten] times the diameter-at-breast-height (dbh) of retention trees, unless approved in advance by a DPR-approved biologist, forester, or certified arborist.
- ~~The~~ [DPR or contractor] will avoid or minimize impacts to federally and state protected wetlands and other jurisdictional waters to the extent practicable by conducting work in upland areas.

[1] A small number of locally common CRPR listed plants may be temporarily or permanently impacted by HCP covered activities, but habitat for these species is abundant in the HCP area and the project is not expected to impact the overall population of these species.

[2] The buffer distance may occasionally be reduced due to site constraints but can also be increased up to 100 feet for large wetlands.

- Project area will be monitored and maintained by [a DPR Natural Resources Specialist] for up to [five years or as determined appropriate for the project goals] if revegetation is required to meet project plant survival and cover goals. ~~Including regular watering and replacement planting, as necessary to assure an approximately [enter percent] survival rate~~.
- Any trenching in a "structural root zone" will be completed by hand; no roots larger than [two inches] in diameter will be cut or damaged.
- All herbicides will be handled, applied, and disposed of in accordance with the MSDS Fact Sheet and all local, State, and federal laws.
- To maintain genetic integrity, only locally native plant stock collected within the [Oceano Dunes HCP area or from the same ecological region, elevation, and site characteristics as the site to be revegetation] will be used for re-vegetation in the project area in accordance with the DPR Genetic Integrity Policy (DOM Natural Resources Section, Plant Resources Chapter 0310.4.4).
- [DPR or Contractor] will employ Best Management Practices (BMPs) for erosion control to avoid runoff of project-related sediments, vehicle fluids, and other liquids into ~~special~~ sensitive plant communities.

Wildlife

- If feasible, [DPR] will schedule all work between [September 16 and January 31] to avoid the [nesting bird season and bat maternity roosting season].
- If work is required during the [nesting bird] season ([February 1-September 15]), a [DPR Natural Resources Specialist] will conduct a survey to identify **[**active nests] within [250 feet for passerines, 500 feet for small raptors like white-tailed kites, and 1,000 feet for large raptors like golden eagles] of the project area. The survey will be conducted no more than [five] calendar days prior to the beginning of project activities~~construction~~. If [active nests] are found during the nesting bird survey, ~~located within [insert distance] feet of the project area~~ no project activities ~~construction~~ will occur within [a no disturbance buffer determined by the DPR Natural Resource Specialist as appropriate to the species to ensure project activities do not result in nest failure] during the [nesting] season or until the young have fledged, as determined by a DPR-approved biologist. If project activities are delayed by more than five days, an additional nesting bird survey may be performed at the discretion of a DPR Natural Resources Specialist. The results of the surveys shall be documented.
- Prior to the start of on-site project~~construction~~ activities, a [DPR Natural Resources Specialist] will train on-site project~~construction~~ personnel on the life history of [any special-status species, nesting birds, or roosting bats which may occur at the site], work constraints, and any other pertinent information related to the species.
- Within [48] hours prior to the start of project~~construction~~ activities, [a DPR Natural Resources Specialist] will conduct surveys for [special-status animal species which may occur] in the project area and up to [50] feet outside the project boundaries.
- If individuals or other recent signs of [special-status animals] are observed within [50 feet] of the project area, [a DPR Natural Resources Specialist] will be present on the site to monitor during project~~construction~~ activities at his/her discretion.

- Immediately prior to the start of work each morning, [a DPR Natural Resources Specialist or staff trained by the DPR Natural Resources Specialist] will conduct a visual inspection of the projectconstruction zone.
- If [a special-status animal] species is found on the project site, work in the vicinity of the animal will be delayed until the species moves out of the site on its own accord, or is temporarily relocated to a suitable habitat area outside of the work site by [a DPR Natural Resources Specialist] biologist.
- To prevent trapping of [wildlife], all holes and trenches will be covered at the close of each working day with plywood or similar materials or will include escape ramps constructed of earth fill or wooden planks; all pipes will be capped. A [DPR Natural Resources Specialist] or other staff trained by a [DPR Natural Resources Specialist] will inspect trenches and pipes for [trapped animals] at the beginning of each workday. If a trapped animal is discovered, they will be released in suitable habitat at least [50 feet] from the project area.
- All field staff will wear protective clothing and equipment while working with live animals and handling carcasses.
- [DPR or its contractor] will not remove any trees equal to or greater than [four] inches dbh unless first inspected by [a DPR Natural Resources Specialist] and determined to be unsuitable as nesting habitat for [roosting bats].

Aesthetics

- Projects will be designed to incorporate appropriate park scenic & aesthetic values including the choices for: specific building sites, scope & scale; building and fencing materials and colors; use of compatible aesthetic treatments on pathways, retaining walls or other ancillary structures; location of and materials used in parking areas, campsites and picnic areas; development of appropriate landscaping. The park scenic and aesthetic values will also consider views into the park from neighboring properties.
- [DPR or Contractor] will store all project-related materials outside of the viewshed of [public recreation areas as feasible].

Air Quality

- All trucks or light equipment hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- All gasoline-powered equipment will be maintained according to manufacturer's specifications, and in compliance with all State and federal requirements.
- Excavation and grading activities will be suspended when sustained winds exceed 15 miles per hour (mph), instantaneous gusts exceed 25 mph, or when dust occurs from remediation related activities where visible emissions (dust) cannot be controlled by watering or conventional dust abatement controls.

Geology and Soils (erosion)

- After a large earthquake event (i.e., magnitude 5.0 or greater within 50 miles of the project site), [District Superintendent or designee] will inspect all project structures and features for damage, as soon as is possible after the event. Any damaged structures or features will be closed to park visitors, volunteers, residents, contractors, and staff.

Hazards

- Prior to the start of on-site projectconstruction activities, [DPR or Contractor] will inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the project site. All contaminated water, sludge, spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.
- If applicable, Pprior to the start of on-site projectconstruction activities, [DPR or Contractor] will prepare a Spill Prevention and Response Plan (SPRP) as part of the Storm Water Pollution Prevention Plan (SWPPP) for [Regional Water Quality Control Board] approval to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include (but not be limited to);
  - a map that delineates projectconstruction staging areas, where refueling, lubrication, and maintenance of equipment will occur;
  - a list of items required in a spill kit on-site that will be maintained throughout the life of the project;
  - procedures for the proper storage, use, and disposal of any solvents or other chemicals used in the restoration process;
  - and identification of lawfully permitted or authorized disposal destinations outside of the project site.
- [DPR or Contractor] will set up decontamination areas for vehicles and equipment at Park entry/exit points. The decontamination areas will be designed to completely contain all wash water generated from washing vehicles and equipment. Best Management Practices (BMPs) will be installed, as necessary, to prevent the dispersal of wash water beyond the boundaries of the decontamination area, including over-spray.
- If applicable to the project, pPrior to the start of project activitiesconstruction, [DPR or Contractor] will develop a Fire Safety Plan for **[**DPR] approval. The plan will include the emergency calling procedures for both the California Department of Forestry and Fire Protection (CDFCalFire) and local fire department(s).
- All heavy equipment will be required to include spark arrestors or turbo chargers (which eliminate sparks in exhaust) and have fire extinguishers on-site.
- ProjectConstruction crews will be prohibited from parking vehicles and using portable tools powered by gasoline-fueled internal combustion engines [within 25 feet] from flammable material, such as dry grass or brush. At the end of each workday, projectconstruction crews will park heavy equipment over a non-combustible surface to reduce the chance of fire.
- DPR personnel will have a State Park radio at the Park, which allows direct contact with DPR's SURCOM CalFire and a centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.
- Prior to the start of on-site projectconstruction activities, [DPR or Contractor] will clean and repair (other than emergency repairs) all equipment outside the project site boundaries.
- [DPR or Contractor] will designate and/or locate staging and stockpile areas within the existing maintenance yard area or existing roads and campsites to prevent leakage of oil, hydraulic fluids, etc. into [the environment].

Hydrology

- As appropriate and applicable to each project ~~Prior to the start of construction~~ involving ground-disturbing activities, [DPR or Contractor] will~~prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for DPR approval that~~ identify~~ies~~ temporary Best Management Practices (BMPs) (e.g., tarping of any stockpiled materials or soil; use of silt fences, straw bale barriers, fiber rolls, etc.) and permanent (e.g., structural containment, preserving or planting of vegetation) for use in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, trenching, repaving, or other ground-disturbing activities. ~~The SWPPP will include~~ BMPs will also be identified for hazardous waste and contaminated soils management and a Spill Prevention and Control Plan (SPCP), as appropriate.
- All heavy equipment parking, refueling, and service will be conducted within designated areas outside of the 100-year floodplain to avoid water course contamination.
- The project will comply with all applicable water quality standards as specified in the [Central Coast] Basin Plan.
- All project~~construction~~ activities will be suspended during heavy precipitation events (i.e., at least 1/2-inch of precipitation in a 24-hour period) or when heavy precipitation events are forecast.
- If project~~construction~~ activities extend into the rainy season ([October through April]) or if an un-seasonal storm is anticipated, [DPR or Contractor] will properly winterize the site by covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and graded areas.
- [DPR or Contractor] will install appropriate energy dissipators at water discharge points, as appropriate.

Traffic

- Prior to delivery and/or removal of project-related equipment or materials that could impede or block access to driveways, cross streets, or street parking, [District Superintendent or designee] will coordinate with the local jurisdictions to develop and implement traffic control measures.

Noise

- Internal combustion engines used for project implementation will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for Project-related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or shrouds, intake silencers, ducts, etc.) whenever necessary.
- Project~~construction~~ activities will generally be limited to the daylight hours, Monday – Friday. If work during weekends or holidays is required, no work will occur on those days before [8:00] a.m. or after [5:00] p.m. (check contract docs for time restrictions)
- Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for project activities ~~construction~~ will utilize the best available noise control techniques (e.g. engine enclosures, acoustically-attenuating shields, or shrouds, intake silencers, ducts, etc.) whenever necessary.

Appendix C: Special-Status Species in HCP Area

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Oceano Dunes District HCP EIR
Appendix C: Special-Status Species in HCP Area

Special-Status Animal Species List

The following table includes special-status animal species, listing status, range in California, habitat, and potential for special-status species to occur in the HCP area based on information from U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), California Department of Parks and Recreation (CDPR) survey and monitoring reports, California Natural Diversity Database (CNDDB), and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants. A total of 74 animal species were determined to have some potential to occur within the HCP area. Of these 74 species, 57 species have been recorded within the HCP area, and the other 17 species are not expected to occur due to a lack of suitable habitat and/or nearby occurrences.

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
Invertebrates					
western bumblebee *Bombus occidentalis*	SC	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	Inhabits a variety of landscapes and ecosystems, including agricultural and urban landscapes as well as in alpine, dune, forested, forest edge, and grassland ecosystems.	Low - This species has not been documented in the HCP area or within 5 miles of the area. The range of verified occurrences appears to be north of the HCP area, and collections in southern California may be rare wayward migrants.	2, 3, 4
vernal pool fairy shrimp *Branchinecta lynchi*	FT	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swales, earth slump, or basalt-flow depression pools.	None - No suitable habitat and no records from area.	1, 2, 3, 4
Kern primrose sphinx moth *Euproserpinus euterpe*	FT	Found in the Walker Basin, Kern County, and several other scattered locations (Carrizo Plain in San Luis Obispo County and Cuyama Valley in Santa Barbara County).	Host plant is evening primrose (*Camissonia contorta epilobioides*). Found in valley & foothill grassland.	None - No suitable habitat and no records from area. In San Luis Obispo County, this species is only known to occur within the Carrizo Plain.	3

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
monarch butterfly *Danaus plexippus*	FPT	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Roosts located in wind-protected tree groves (e.g., eucalyptus [*Eucalyptus* sp.], Monterey pine [*Pinus radiata*], Monterey cypress [*Cupressus macrocarpa*]), with nectar and water sources nearby.	Present - Known to overwinter in 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.	2, 3, 4
Fish					
steelhead - south/central California coast DPS *Oncorhynchus mykiss irideus*	FT, CSSC	Coastal river basins from the Russian River south to Soquel and Aptos Creek, and the drainages of San Francisco and San Pablo Bays, including the Napa River.	Hatches in fresh water, lives adult life in the ocean, and returns to natal stream or river to spawn; spawning and rearing habitat consists of perennial streams with clear, cool to cold, fast flowing water with a high dissolved oxygen content and abundant gravels and riffles.	Present - 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.	2, 3, 4
arroyo chub *Gila orcuttii*	CSSC	Native to streams from Malibu Creek to San Luis Rey River Basin; introduced into streams in Santa Clara, Ventura, and Santa Ynez.	Slow water stream sections with mud or sand bottoms; feed heavily on aquatic vegetation and associated invertebrates.	None - The only known occurrences within five miles were introduced into the Santa Maria River. In addition, this species has not been documented in the HCP area during previous CDPR surveys from 2003-2023.	3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
tidewater goby[1] *Eucyclogobius newberryi*	FE, CSSC	Occurs in brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River in Del Norte County.	Shallow lagoons and lower stream reaches in brackish to fresh water; they need fairly still but not stagnant water and high oxygen levels.	Present - Known to occur in Arroyo Grande Creek, Pismo Creek, Carpenter Creek, Oso Flaco Creek, and Pismo Creek from CDPR surveys and CNDDB records. Suitable habitat in area includes Arroyo Grande Creek and Lagoon, Pismo Creek and Lagoon, Carpenter Creek, Oceano (Meadow Creek) Lagoon, and Oso Flaco Creek.	1, 2, 4
Amphibians/Reptiles					
California tiger salamander Central California DPS *Ambystoma californianse* pop. 1	FT, ST, SWL	This DPS is located in the Central Valley and Inner Coast Range, from Tulare and San Luis Obispo counties in the south to Sacramento and Yolo counties in the north.	Requires both breeding and aestivation habitat. Breeding habitat consists of low-elevation (typically below 1,900 feet) vernal pools, vernal pool complexes, and seasonal ponds in grassland, oak savannah, and coastal scrub communities. They spend the dry season in upland habitats within one mile of the breeding ponds in small mammal burrows.	None - No suitable habitat and no records from area.	3, 4
foothill yellow-legged frog South Coast DPS *Rana boylii* pop. 6	FE, SE	Southern Coast Ranges from Monterey Bay south through San Gabriel Mountains; west of the Salinas River in Monterey Co, south through Transverse Ranges, and east through San Gabriel Mountains. Historically may have ranged to Baja California.	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	Low - This species has not been observed in the HCP area, and limited suitable habitat is available within the HCP area to support this species. The nearest occurrences for this species are considered "Extirpated" by the CNDDB.	1, 3, 4

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

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
California red-legged frog *Rana draytonii*	FT, CSSC	Northern and southern coast ranges, and in isolated areas in the Sierra Nevada foothills.	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Present - Observed during CDPR surveys in Arroyo Grande Creek and in the Oso Flaco Lake complex, including Oso Flaco Lake and Little Oso Flaco Lake. Potentially observation in Carpenter Creek. Also found nearby in Jack Lake, Finger Lake, Snake Lake, Little Oso Flaco Creek, and Lettuce Lake.	1, 2, 4
Western spadefoot *Spea hammondii*	FPT, CSSC	Ranges from near Redding south throughout the Great Valley and its associated foothills, through the South Coast Ranges into coastal southern California south of the Transverse mountains and west of the Peninsular mountains, into northwest Baja California.	Prefers open areas with sandy or gravelly soils, in mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Vernal pools without predators are required for breeding.	Present - Documented at Oso Flaco Lake in 2000 and suspected sighting within the Eucalyptus Tree vegetation island in 2011. Other ephemeral water sources within the HCP area may be used by this species for breeding and vegetation islands and open sand areas may be used during dispersal and winter.	1, 4
Coast Range newt *Taricha torosa*	CSSC	Coastal drainages from Mendocino County to San Diego County.	Lives in terrestrial habitats and will migrate over one kilometer to breed in ponds, reservoirs and slow-moving streams.	Present - This species has been infrequently observed in the HCP area. Suitable habitat for this species is limited to aquatic habitat and areas near aquatic habitat.	3
southwestern pond turtle *Actinemys pallida*	FPT, CSSC	Range includes areas of the central Coast Range from near northern Monterey County, California, portions of the Transverse Range into the Mojave River watershed, and areas south into Baja California, Mexico.	Ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.	Present - Known to occur in Oso Flaco Lake, Oceano Lagoon, and Arroyo Grande Creek from CDPR surveys and CNDDB records. Other freshwater habitat within the HCP area may be used.	1, 2, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
Northern California legless lizard *Anniella pulchra*	CSSC	Occurs from the southern edge of the San Joaquin River in northern Contra Costa County south to northwestern Baja California Del Norte just south of Colonia Guerrero. Five lineages; Lineage D occurs in project area.	Dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and riparian habitats with moist, sandy soils.	Present - Observed in the HCP area in vegetation islands, designated campgrounds, and at Oso Flaco Lake. Also observed nearby at Little Oso Flaco Lake, Jack Lake, and near Lettuce Lake. Similar coastal dune scrub and riparian habitat near freshwater within the HCP area may also be used by this species.	2, 3, 4
blunt-nosed leopard lizard *Gambelia sila*	FE, SE, CFP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief.	Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	None - No suitable habitat and no records from area. In San Luis Obispo County, this species is only known to occur within the Carrizo Plain.	3, 4
coast horned lizard *Phrynosoma blainvillii*	CSSC	Historically, found along the Pacific coast from the Baja California border west of the deserts and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California. Ranges up onto the Kern Plateau east of the crest of the Sierra Nevada. Current range is more fragmented.	Chaparral, grasslands, coniferous forests in fine, loose soils. Prefers friable, rocky, or shallow sandy soils for burial; open areas for sunning; bushes for cover; and an abundant supply of ants and other insects.	Present - Documented most recently in the HCP area in 2022. This species 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.	2, 3, 4
two-striped garter snake *Thamnophis hammondii*	CSSC	Coastal California from vicinity of Salinas to northwest Baja California, from sea level to about 7,000 feet.	Highly aquatic, found in or near permanent fresh water, often along streams with rocky beds and riparian growth.	Present - This species has been infrequently observed in the HCP area. Observed at Oso Flaco Lake. Also observed in September 2016 within the Chevron property just south of the HCP area. Suitable habitat present within aquatic habitat in the HCP area.	3, 4
Birds					
Ducks, Geese, and Swans					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
redhead *Aythya americana*	CSSC (nesting)	Year-round resident in central valley, winter resident elsewhere in wetland habitats. Breeds in wetland habitats in northeastern California, the Central Valley, the southern deserts.	Nests on marshy lakes and ponds, winters in large flocks on sheltered bays and lakes.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range. This species has been observed within the HCP area at Oso Flaco Lake. Suitable resting and foraging habitat includes large water bodies like Pismo Lagoon, Oso Flaco Lake, and Oceano Lagoon.	3, 4
brant *Branta bernicla*	CSSC (wintering and staging)	Winters along entire California coast.	Requires well-protected, shallow marine waters with inter-tidal eel grass beds, primarily within bays and estuaries; primary food is eel grass. Winters in sheltered bays, behind sand spits, in large embayments, and near mouths of estuaries.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range. This species has been observed at in the HCP area. Suitable wintering habitat includes Pismo Lagoon, Oceano Lagoon, and other tidal areas.	3, 4
Loons					
common loon *Gavia immer*	CSSC (nesting)	Migratory in California. In their winter range along ocean coasts. Nesting locations at certain large lakes and reservoirs in interior of state, primarily in northeastern plateau region.	Bodies of water regularly frequented are extensive, fairly deep, and produce quantities of large fish.	Present (Wintering/Migration), None (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.	3
Albatrosses					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
short-tailed albatross *Phoebastria albatrus*	FE, CSSC	Primarily at sea. They nest on isolated, windswept, offshore islands, with restricted human access, mostly on islands near Japan. Their non-breeding range includes the California coast.	Primarily at sea searching for food. Congregating in areas of upwelling where the churning brings smaller prey to the water's surface.	None (Wintering/Migration), None (Nesting) - No suitable habitat and no records from area. This species is only known from far offshore near the HCP area.	1
Shearwaters and petrels					
Hawaiian petrel *Pterodroma sandwichensis*	FE	Breeds in remote or high elevation areas on the islands of Hawaii, Maui, Molokai, Lanai and Kauai. In California, forages offshore along the coast.	Nests in burrows in remote areas, such as under cinder cones, old lava, and dense vegetation. Forages thousands of miles over the central tropical Pacific, primarily eating squid, but also fish, crustaceans, and plankton.	None (Wintering/Migration), None (Nesting) - No suitable habitat and no records from area. This species is only known from far offshore near the HCP area.	1
Pelicans					
American white pelican *Pelecanus erythrorhynchos*	CSSC (nesting colony), BCC	Year-round resident along the Coast and Central Valley from the San Francisco Bay Area south to the border with Mexico; and a summer resident in the northeast corner of California. Occurs as migrating or nonbreeding populations throughout California, except for breeding grounds located in the Klamath basin.	Nests on the ground in colonies on earthen, sandy or rocky, islands, peninsulas or tule mats. They forage in shallow inland waters or shallow coastal marine waters. Sand bars are important for loafing and roosting.	Present (Wintering/Migration), None (Nesting) - 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.	3, 4
Cormorants					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
double-crested cormorant *Nannopterum auritum*	SWL (nesting colony)	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Year-round resident along the California coast and Central Valley from the San Francisco Bay Area south to the border with Mexico; and a summer resident in the northeast corner of California.	Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins. Occupies diverse aquatic habitats in all seasons. Often perch on exposed sites such as rocks or sandbars, pilings, ship wrecks, high-tension wires, or trees near fishing sites.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range. This species has been observed in the HCP area. Foraging, roosting, and loafing habitats are located anywhere near water bodies.	4
Herons, egrets, and bitterns					
least bittern *Ixobrychus exilis*	CSSC (nesting)	Year-round resident in southern California, summer resident in the Central Valley. Breeds in northeastern California, the central coast, the Central Valley, the southern coast, and the southern deserts.	Colonial nester in fresh and brackish marshlands and borders of ponds and reservoirs, with tall, dense emergent vegetation and clumps of woody plants over deep water for ample cover; nests usually placed low in tules, over water.	Present (Nesting/Wintering/Migration) - Has been observed as recently as September 2021 at Oso Flaco Lake and has been confirmed to breed at Oso Flaco Lake as recently as May 2016. Suitable breeding/nesting habitat may include dense emergent vegetation around Oso Flaco Lake and Pismo Lake.	3, 4
Storks					
wood stork *Mycteria americana*	CSSC	Migrant in southern California, vagrant elsewhere. Small breeding population known to nest at the southern end of the Salton Sea in California.	Freshwater and saltwater sloughs, shallow ponds and marshes. Near the Salton Sea, wood storks forage in shallow bays, marshy backwaters, canals, and drains. Along the coast, wood storks are found mainly in coastal estuaries but also in ponds and lakes inland from the ocean.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range. This species has only been observed at Oso Flaco Lake in 2011. Suitable roosting and foraging habitat includes Oso Flaco Lake, Pismo Lake, Pismo Lagoon, and Oceano Lagoon.	3, 4
New World vultures					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area					
Species	**Listing Status[1]**	**Range in California**	**Habitat**	**Potential to Occur**	**Sources**
California condor Gymnogyps californianus	FE, SE, CFP	Reintroduced to mountains of southern and central California, Arizona, Utah, and Baja California.	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Low (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range. Determined to be a rare migrant in the HCP area.	1, 3, 4
Ospreys					
osprey *Pandion haliaetus*	SWL (nesting)	Breeds in northern California and winters along the central and southern coast.	Occurs at ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Present (Wintering/Migration), None (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, Oceano Lagoon, Pismo Lake, Pismo Creek, Arroyo Grande Creek, and Oso Flaco Creek.	2
Hawks, kites, harriers, and eagles					
Cooper's hawk *Accipiter cooperi*	SWL (nesting)	Occurs year-round in California except in the southeast corner of the stater, where it is a winter resident only.	Occurs in various types of temperate deciduous forest and mixed forest. They are also adaptable in all seasons to forested mountainous regions, especially foothills.	Present (Wintering/Migration), High (Nesting) - This species occurs Districtwide in suitable habitat areas and may nest within the HCP area.	4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
sharp-shinned hawk *Accipiter striatus*	SWL (nesting)	Occurs throughout California and beyond: year-round resident in northern California; winter resident in central and southern California.	Breeds in deciduous, coniferous, and mixed pine-hardwood forests and pine plantations During the nonbreeding season they hunt small birds and mammals along forest edges, rural farm sites, and sometimes at backyard bird feeders.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range. This species has been infrequently observed in the HCP area. Suitable foraging habitat may exist throughout the Oso Flaco Lake area due to its proximity to agricultural areas. Monterey pine forest, Torrey pine forest, beach pine forest, and coast live oak woodland near the Oceano Campground may also provide suitable habitat for roosting and foraging.	4
golden eagle *Aquila chrysaetos*	CFP	Found year-round throughout the foothills and mountains of California, and as nonbreeding populations throughout the Central and Imperial Valleys.	Occupied habitats include shrublands, grasslands, desert, mixed woodlands, and coniferous forests. Usually found in mountainous areas, but may also nest in wetland, riparian, and estuarine habitats at lower elevations. Nests on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	Present (Wintering/Migration), Low (Nesting) - Not known to nest within the HCP area. Most recently observed flying within the HCP area in April 2021 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 coast live oak woodland located throughout the HCP area. The open beach and agricultural areas provide suitable foraging habitat.	3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
Swainson's hawk *Buteo swainsoni*	ST	Breeds in central and eastern California in the summer.	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low (Migration), None (Nesting/Wintering) - Determined to have a low chance of occurrence because the HCP area is outside this species' current known range. This species was recorded on eBird as being observed one time in the HCP area in 2010 at Oceano Campground; therefore, it may occur as a rare migrant in the area.	3, 4
northern harrier *Circus hudsonius*	CSSC, BCC	Found year-round throughout lowland/coastal California; has been recorded in fall at high elevations. Nonbreeding elsewhere in California.	Grasslands, meadows, marshes, and seasonal and agricultural wetlands.	Present (Nesting/Wintering) - 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, Oceano Lagoon, and Pismo Lake.	3, 4
white-tailed kite *Elanus leucurus*	CFP	Found year-round in lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills, to western San Diego County at Mexico border.	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging.	Present (Foraging, Wintering), Moderate (Nesting) - Observed in the HCP area as recently as September 2021. 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 HCP area.	2, 3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
bald eagle *Haliaeetus leucocephalus*	SE, CFP (nesting and wintering)	Most breeding territories are in northern California, but the eagles also nest in scattered locations in the central and southern Sierra Nevada mountains and foothills, in several locations from the central coast range to inland southern California, and on Santa Catalina Island. Winter throughout most of California at lakes, reservoirs, rivers, and some rangelands and coastal wetlands.	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range. Observed near Oso Flaco Lake in October 2022. Wintering habitat present in lakes in HCP area.	4
Falcons					
merlin *Falco columbarius*	SWL (wintering)	Winter resident in California.	Winters in open areas like grasslands, coastal marshes, and farmlands. They also often winter in cities, where they perch on tall trees, power poles, and buildings.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range. Confirmed in vegetated islands as recently as December 2021, near Oso Flaco Lake in November 2022.	4
prairie falcon *Falco mexicanus*	SWL (nesting)	Year round resident in much of California, winter resident in northwest of the State and part of the Central Valley.	Inhabits dry, open terrain, either level or hilly.	Present (Foraging, Wintering), Moderate (Nesting) - Observed at Oso Flaco Lake in October 2022. This species usually nests in cliffs but could nest in trees or structures in the HCP area.	4
Rails, coots, and gallinules					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
California black rail *Laterallus jamaicensis* ssp. *coturniculus*	ST, CFP	This endemic subspecies of the black rail (*Laterallus jamaicensis*) occurs in the San Francisco Bay region, parts of the Central Valley and at the southeastern border of the State.	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. It needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	High (Nesting/Wintering) - Historically observed at Oso Flaco Lake in the HCP area (nesting unconfirmed); however, they have not been observed in the area since 1991. Suitable foraging and nesting habitat may include Oso Flaco Lake and Pismo Lake.	2, 3, 4
California ridgeway's rail *Rallus obsoletus obsoletus*	FE SE, CFP	Found year-round along California coastal saline emergent wetlands.	Coastal wetlands and brackish waters.	None - The HCP area is outside the known range for this species. No suitable habitat and no records from area.	1, 3
Plovers and relatives					
mountain plover *Charadriu montanus*	CSSC, BCC (wintering)	About 85 percent of the population winters in the San Joaquin and Imperial Valleys in California.	Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range. Confirmed on the shoreline in the HCP area as recently as October 2021.	4
western snowy plover *Charadrius nivosus nivosus*	FT, CSSC	Pacific population of western snowy plover occurs along the entire the Pacific Ocean on the North American mainland coast, peninsula offshore islands, interior bays, estuaries, and rivers.	Occurs on sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting. Nests typically found on flat, open areas of the back beach or backdunes where vegetation is sparse or non-existent.	Present (Nesting/Wintering) - Known to nest and winter in the HCP area. Nesting and foraging habitat are located along the open sandy beach above the high tide line and within the foredunes.	1, 2, 4
Sandpipers and relatives					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
long-billed curlew *Numenius americanus*	SWL (nesting)	Breeds in upland shortgrass prairies and wet meadows in northeastern California; winters along the coast.	Habitats on gravelly soils and gently rolling terrain are favored. Overwintering habitat along the coast includes nearly all marine habitats: beaches, rocky coasts, mudflats, coastal estuaries, and river/stream deltas.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range for this species. Confirmed on shoreline as recently as October 2021, near Oso Flaco Lake in October 2022. Suitable foraging and roosting habitat are located throughout HCP area along the beach.	4
Gulls and terns					
black tern *Chidonias niger*	CSSC, BCC (nesting colony)	Breeds in central eastern California, primarily in Modoc Plateau region, with some breeding in the Sacramento and San Joaquin valleys. Winters along central coast.	Freshwater lakes, ponds, marshes and flooded agricultural fields; at coastal lagoons or estuaries during migration. Colonial nester on islets in large interior lakes, either fresh or strongly alkaline.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range for this species. This species has been observed in the HCP area as recently as 2020. May use a wide range of habitats within the HCP area for foraging and roosting habitat.	3, 4
California gull *Larus californicus*	SWL, BCC (nesting colony)	Breeds in central eastern California and in the Bay Area, winters along the coast.	Occurs in littoral waters, sandy beaches, waters and shorelines of bays, tidal mud-flats, marshes, lakes, etc. Colonial nester on islets in large interior lakes, either fresh or strongly alkaline.	Present (Wintering/Migration), None (Nesting) - The HCP area is outside the known breeding range for this species. May use a wide range of habitats within HCP area for foraging and roosting.	4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
black skimmer *Rynchops niger*	CSSC, BCC (nesting colony)	Year-round resident in LA, Orange, and San Diego Counties; winters commonly from coastal Santa Barbara south to San Diego. Breeds in isolated pockets, including: South San Francisco Bay, the north and south portions of the Salton Sea, and 4 small known colonies on the coast from Santa Barbara to San Diego.	Nests on isolated and/or undisturbed gravel bars, low islets and sandy beaches, in unvegetated sites; colonies usually less than 200 pairs. Wintering birds will utilize beaches above the tide or mudflats within estuaries.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range. This species has been observed in the HCP area at the Pismo Creek mouth as recently as July 2021. May use the beaches and estuary areas throughout the HCP area as migrating and wintering habitat.	3, 4
California least tern *Sternula antillarum browni*	FE, SE, CFP	Nests along the Pacific Coast from San Francisco Bay south to Northern Baja California.	Colonial breeder on bare or sparsely vegetated flat substrates, sandy beaches, alkali flats, landfills or paved areas. Nesting colonies are typically located on broad dune-backed sandy beaches or small sandspits where vegetation is either sparse or altogether absent.	Present (Nesting), None (Wintering) - 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.	1, 2, 4
elegant tern *Thalasseus elegans*	SWL, BCC (nesting colony)	Only 3 known breeding colonies: San Diego Bay, Los Angeles Harbor and Bolsa Chica Ecological Reserve.	Nests on open, sandy, undisturbed beaches and on salt-evaporating pond dikes (San Diego) in association with Caspian tern. Prefers coastal waters, bays, harbors, lagoons, and estuaries while roosting on migration routes.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range for this species. 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.	4
Auklets, puffins, and relatives					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
marbled murrelet *Brachyramphus marmoratus*	FT, SE	Nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nonbreeding and year-round populations are located offshore from the Oregon border to Point Conception.	Spend majority of life on the ocean but come inland to nest. Nests in old-growth redwood dominated forests, up to six miles inland, often in Douglas fir. In California, nests are typically found in coastal redwood (*Sequoia sempervirens*) and Douglas-fir (*Pseudotsuga menziesii*) forests.	Present (Wintering/Migration), None (Nesting) - 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 2022. Suitable foraging habitat within HCP area is located offshore in the HCP area.	1, 3, 4
Cuckoos and relatives					
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, SE	Breeds at isolated locations in central and southern California, from the Sacramento Valley south to northern Mexico.	Nests in open woodland with low, dense, scrub cover, often along waterways. Along the broad, lower flood bottoms of large river systems; nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles or wild grape.	Present (Migration), None (Nesting/Wintering) - 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.	1, 2, 3, 4
Owls					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
burrowing owl *Athene cunicularia*	SC, CSSC, BCC	Lowlands throughout California, including Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast.	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows.	Present (Wintering/Migration), Low (Nesting) - 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, near the chemical toilets on the beach, near the Grand Avenue entrance, and at Oceano Lagoon. May use a variety of habitats within the HCP area but is constricted to areas with low or no vegetation and available small-mammal burrows or organic debris (e.g., driftwood).	2, 3, 4
Swifts					
Vaux's swift Chaetura vauxi	CSSC, BCC (nesting)	A summer (breeding) migrant in northern California and coastal California from the Oregon border to Monterey County, and in the Sierra Nevada from the Oregon border to northern Kern County.	Colonial breeding habitat is associated with redwood forests. Nests in snags and hollow trees in redwood and Douglas fir forests. May occasionally use manmade structures for nesting and/or roosting—primarily chimneys (mimicking tree snags/hollows).	Present (Wintering/Migration), None (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 2022; however, it is likely a rare migrant in the HCP area.	3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
black swift *Cypseloides niger*	CSSC, BCC (nesting)	This species occurs in California as a summer resident and its breeding range is patchily distributed throughout the State excluding the Central Valley and much of the coast.	Nests colonially behind or beside permanent or semi-permanent waterfalls, on perpendicular cliffs near water and in sea caves.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range for this species. This species has been observed in the HCP area at Oso Flaco Lake as recently as 2022; however, it is likely a rare migrant in the HCP area.	3, 4
Tyrant flycatchers					
olive-sided flycatcher *Contopus cooperi*	CSSC, BCC (nesting)	A summer (breeding) migrant in the Cascade Range and Modoc Plataeu in northern California, Sierra Nevada in eastern California, Coast Ranges, and Transverse and Peninsular Ranges in Southern California.	Nests in late-successional coniferous forests with open canopies.	Present (Foraging/Migration/ Wintering), Low (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 and willows in the HCP area.	3, 4
southwestern willow flycatcher *Empidonax trailii extimus*	FE, SE (nesting)	Occurs as a summer (breeding) migrant in moist thickets and riparian areas throughout California.	Nests in dense riparian habitats with perennial water.	Low (Foraging/Migration/ Wintering), None (Nesting) - The HCP area is outside the known breeding range. May have been observed at Oso Flaco Lake in 2022, but subspecies was not confirmed.	1, 3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
willow flycatcher *Empidonax trailii*	SE, BCC (nesting)	Common resident in most of California, breeds along the western coast of California from Monterey county to the Mexican border, and along a band in the eastern Sierra Nevada southwest through the southern margin of the San Joaquin Valley.	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2,000-8,000 ft elevation. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	Present (Wintering/Migration), Low (Nesting) - HCP area outside the known breeding range and wintering range for this species. Confirmed in the HCP area at Oso Flaco Lake and at Oceano Lagoon as recently as September 2022. May use a variety of the willow thicket habitat within the HCP area for both foraging and resting during migration, especially the thickets on the banks and surrounding wetlands of Pismo, Oceano, and Arroyo Grande Lagoons, and Oso Flaco Lake.	3, 4
Shrikes					
loggerhead shrike *Lanius ludovicianus*	CSSC (nesting)	Resident and winter visitor in lowlands and foothills throughout California; rare on coastal slope north of Mendocino County, occurring only in winter.	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	Present (Nesting/Wintering) - Regularly observed in the HCP area and known to nest and forage in the area.	3, 4
Vireos					
least Bell's vireo *Vireo bellii* ssp. *pusillus*	FE, SE (nesting)	Occurs as a summer (breeding) migrant in the far south of California and in northern Baja California.	Nests in riparian habitats, generally in dense vegetation near surface water.	None - The HCP area is outside the known range for this species. No suitable habitat and no records from area.	1, 3, 4
Larks					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
California horned lark *Eremophila alpestris actia*	SWL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Present (Foraging/Wintering/Nesting) - This species has been observed in the HCP area and the National Wildlife Refuge to the south of the HCP area. Within the HCP area this species has been observed nesting in similar habitat to western snowy plover and California least tern. May nest and forage in a variety of low grass or bare habitats within the HCP area.	4
Swallows					
purple martin *Progne subis*	CSSC (nesting)	Summer (breeding) resident of coastal California and the Sierra Nevada.	Forage over towns, cities, parks, open fields, dunes, streams, wet meadows, beaver ponds, and other open areas. Nest in woodpecker holes in mountain forests or Pacific lowlands.	Present (Wintering/Migration), Low (Nesting) - This species has occasionally been observed near Oso Flaco Lake. The HCP area is in the breeding range of this species, but they are cavity nesters limited to areas with suitable trees for nesting.	4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
bank swallow *Riparia riparia*	ST (nesting)	Occurs primarily around the remaining natural river banks of the Sacramento and Feather Rivers in the Sacramento Valley. A small number of colonies breed in Monterey, San Mateo, Shasta, Siskiyou, Lassen, Plumas, and Modoc Counties.	Colonial nester primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine textured/sandy soils near streams, rivers, lakes or ocean to dig nesting hole.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range for this species. This species has been confirmed foraging in the HCP area as recently as 2022; however, it is likely a rare migrant in the HCP area. Foraging habitat occurs at Arroyo Grande Creek, Oceano Lagoon, Oso Flaco Lake, Oso Flaco Creek, Pismo Lake, Pismo Creek.	3, 4
Yellow-breasted chats					
yellow-breasted chat *Icteria virens*	CSSC (nesting)	Summer (breeding) migrant in northern California, in portions of the Central Valley and the west slope of the Sierra Nevada, on the Central and Southern coast, and in portions of the southern California deserts.	Occupies early successional riparian habitats with a well-developed shrub layer and an open canopy. Nests in dense riparian and shrub habitats.	Present (Foraging/Wintering), Moderate (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 2022. Nesting in the area is not confirmed and may not occur, but this species has been observed singing in the HCP area. May use habitats along Arroyo Grande and Oso Flaco Creeks for nesting and foraging.	3, 4
Blackbirds					

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
tricolored blackbird *Agelaius tricolor*	ST, CSSC, BCC (nesting)	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony. Frequently nests in blackberry thickets and other scrub vegetation under riparian canopy.	Present (Foraging/Wintering), Low (Nesting) - Confirmed in the HCP area at Oso Flaco Lake as recently as March 2022. No nesting documented in the area. May use habitat adjacent to Arroyo Grande and Oso Flaco Creeks and Oso Flaco Lake for nesting and/or foraging.	3, 4
yellow-headed blackbird *Xanthocephalus xanthocephalus*	CSSC (nesting)	Winter resident along the central and south coast, summer resident in eastern California, and year-round resident in southern California.	Nests in freshwater emergent wetlands with dense vegetation and deep water, often along the borders of lakes or ponds.	Present (Wintering/Migration), None (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 2022; however, it is likely a rare migrant in the HCP area. This species may utilize open areas and emergent vegetation within the HCP area for foraging and/or roosting.	3, 4
Wood-warblers					
Lucy's warbler *Leiothlypis luciae*	CSSC (nesting)	Lower Colorado River, and small localized populations occur west to the Borrego Valley, San Diego County, and north through the Mojave Desert, Death Valley National Park, and Inyo County.	Prefers thickets of honey mesquite, riparian woodland, and occasionally stands of tamarisk.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range for this species. This species has been confirmed foraging in the HCP area at Oso Flaco Lake and Oceano Lagoon as recently as 2017; however, it is likely a rare migrant in the HCP area.	3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
yellow warbler *Setophaga petechia*	CSSC, BCC (nesting)	Nests throughout California except the Central Valley, Mojave Desert region, and high altitudes in Sierra Nevada; winters along Colorado River and in parts of Imperial and Riverside Counties.	Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral; may also use oaks, conifers, and urban areas near stream courses.	Present (Foraging/Wintering), Moderate (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 in riparian areas.	3, 4
Cardinals					
summer tanager *Piranga rubra*	CSSC (nesting)	Summer resident of desert riparian along lower Colorado River, and locally elsewhere in California deserts.	Requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along streams.	Present (Wintering/Migration), None (Nesting) - HCP area is outside the known breeding range for this species. This species was observed in the HCP area at Oso Flaco Lake as recently as October 2022; however, it is likely a rare migrant in the HCP area. May use a wide variety of habitats within the HCP area during migration.	3, 4
Mammals					
pallid bat *Antrozous pallidus*	CSSC	Throughout California except high Sierra from Shasta to Kern Counties and northwest coast, primarily at lower and mid-elevations.	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open space, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees and various human structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Present - Documented during passive acoustic surveys at Oceano Lagoon in June 2017. May use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.	3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources
Townsend's big-eared bat *Corynorhinus townsendii*	CSSC	Found throughout California, but details of its distribution are not well known.	Roosts in caves, buildings, hollow trees; forages in many habitats. Most abundant in mesic habitats.	Present - Documented during passive acoustic surveys at Oceano Lagoon in June 2017. May use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.	2, 3, 4
western red bat *Lasiurus frantzii*	CSSC	Occur from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade Crest and deserts. Their winter range includes western lowlands and coastal regions south of the San Francisco Bay.	Feed over a variety of habitats includes grasslands, shrublands, open woodlands and forests, and croplands. Roost in tree foliage, typically in riparian areas.	Present - Documented during passive acoustic surveys at Oceano Lagoon in June 2017. May use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.	3, 4
giant kangaroo rat *Dipodomys ingens*	FE, SE	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub.	Needs level terrain and sandy loam soils for burrowing.	None - No suitable habitat and no records from area.	1, 3, 4
southern sea otter *Enhydra lutris nereis*	FT, CFP	Near shore marine environments from about Ano Nuevo, San Mateo County to Point Sal, SB County.	Needs canopies of giant kelp and bull kelp for rafting and feeding; prefers rocky substrates with abundant invertebrates.	Present (Typically offshore only) - Southern sea otters are occasionally seen offshore of the HCP area.	1, 3, 4
American badger *Taxidea taxus*	CSSC	Occurs throughout California and the western United States and Canada.	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and large areas of open, uncultivated ground. Preys on burrowing rodents.	Present - Has been observed in vegetation islands, and nearby Phillips 66 leasehold. American badger tracks have been observed in the open riding area near the vegetation islands. More likely to use the habitat in the southern portion of the HCP area that is further away from urban areas and connected to other open space.	2, 3, 4

Table C1. Special-status Animal Species with the Potential to Occur in the ODD HCP Area

Species	Listing Status[1]	Range in California	Habitat	Potential to Occur	Sources

[1]Listing Status Key:
FE – Federal Endangered
FT – Federal Threatened
FPT – Federal Proposed Threatened
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

Sources

1. USFWS. 2025. IPaC Species List. List generated March 4, 2025. https://ipac.ecosphere.fws.gov/
2. California Natural Diversity Database (CNDDB). 2025. Oceano and Pismo Beach USGS 7.5 Minute Quadrangles. California Department of Fish and Game, Biogeographic Data Branch. Last updated March 2025.
3. California Department of Parks and Recreation, 2025. Oceano Dunes Habitat Conservation Plan: Appendix A. Listed and Other Special-status Species not Included in the HCP.
4. California Department of Parks and Recreation. 2024. 2024 Oceano Dunes State Vehicular Recreation Area Wildlife Habitat Protection Plan. Prepared by California Department of Parks and Recreation Off-highway Motor Vehicle Division, Oceano Dunes District.

Special-Status Animal Species Descriptions

Special-status animal species that are potentially affected by the existing HCP covered activities, proposed new activities, and potential future activities are described below. Complete descriptions of each HCP covered species including taxonomy, habitat associations, population size, and close to 20 years of annual monitoring data are presented in HCP (section 3.3.1 for western snowy plover [SNPL], section 3.3.2 for California least tern [CLTE], section 3.3.3 for southwestern pond turtle [SWPT], section 3.3.4 for CRLF, section 3.3.5 for western spadefoot [WSF], and section 3.3.6 for tidewater goby). Special-status wintering/migratory birds are described as a group since they only occur in the HCP area seasonally or occasionally and do not breed there. Wood stork, golden eagle, California black rail, western yellow-billed cuckoo, olive-sided flycatcher, and purple martin are likely rare migrants or occasional visitors in the HCP area and are not expected to occur in most years. As a result, these species would not be impacted by existing or new proposed covered activities in the HCP and are not described below.

Fish

Tidewater Goby

Tidewater goby (*Eucyclogobius newberryi*) is endemic to California, occurring along the coast from San Diego County to Del Norte County. They inhabit shallow coastal lagoons and lower stream reaches where the water is brackish to fresh. Tidewater goby is absent from areas where the coastline is steep and streams do not form lagoons or estuaries. They prefer water that is slow moving but not stagnant and typically avoid fast currents or strong wave action. They can survive salinities from 0 to over 50 parts per thousand and temperatures from at least 8 to 23 Celsius. They prefer water at depths of 9–39 inches with relatively high dissolved oxygen and substrates of sand and mud with abundant vegetation (Moyle, et al. 1995) but can tolerate very low dissolved oxygen. Very few tidewater gobies have ever been captured in the marine environment (Swift, et al. 1989), which suggests this species rarely occurs in the open ocean. Therefore, the tidewater goby occurs within discrete coastal wetlands naturally separated by the presence of sandbars that restrict access to the Pacific Ocean (McCraney, et al. 2010). These sandbars generally breach 1–2 times per year during periods of high surf and freshwater input, resulting in rapid draining of the estuary (Krauss, Militello and Todoroff 2002). Thus, successful migration between lagoon habitats requires coordination of breaching events typically between geographically proximate habitats, and dispersal is passive (Lafferty, Swift and Ambrose 1999) (Dawson, Stanton and Jacobs 2001) (McCraney, et al. 2010). Migration between lagoons is thus thought to be rare (McCraney, et al. 2010) or at least infrequent.

A total of about 45 acres of suitable tidewater goby habitat is present within the HCP area. This can vary from year to year as hydrologic conditions and shoreline dynamics dictate. Tidewater goby is known to occur in Arroyo Grande Creek, Pismo Creek and Oso Flaco Creek within the HCP area. The mouths of both creeks end at coastal lagoons/estuaries typical of small coastal watersheds that form sandbars in low-flow summer and fall periods. A lagoon is typically present year-round at Pismo and Arroyo Grande creeks; however, under certain circumstances, Arroyo Grande Lagoon has been known to dry up completely. In most winters, there is sufficient runoff after large rain events to breach the sandbar formed at the crest of the beach and allow a continuous streamflow into the ocean. Tidewater goby has also been observed in Carpenter Creek, which can connect to the Pismo Creek Lagoon, and in the Oceano (Meadow Creek)

Lagoon, which drains into the Arroyo Grande Creek/Lagoon. The small Carpenter Creek population is an extension of the population in Pismo Creek.

The USFWS has also identified approximately 7.5–10 acres of available potential (unoccupied) tidewater goby critical habitat in what the USFWS calls the "Oso Flaco Lagoon" (USFWS 2005). A true lagoon is often not present here, but in some years, it forms behind the beach, hydrologically associated with Oso Flaco Creek. In 2017, two tidewater gobies were found in Oso Flaco Creek for the first time (Rischbieter 2017). A few additional positive collections have been made in some intermittent years since then, including 2023, when successive surveys indicated that at least a couple of individuals had apparently persisted in lower Oso Flaco Creek for several months (Rischbieter, Douglas, pers. comm. 2024). In the absence of a true and persistent lagoon, CDPR does not consider the creek habitat to be suitable for goby in most years. The Oso Flaco Lake fishery is dominated by warmwater sport fish, such as largemouth bass (*Micropterus salmoides*) and other sunfish, and the creek is narrow and confined. The creek rarely impounds to form a true lagoon and, as a result, there is a large freshwater influence with no salt-water prism. While this area appears to be poor long-term habitat for tidewater goby, an eDNA survey was conducted by U.C. Los Angeles doctoral student Mira Abrecht in February 2024 to investigate whether tidewater goby may occupy the difficult-to-access short reach of stream between Oso Flaco Lake and the beach location where tidewater goby has occasionally been collected. Results were reported in January 2025. 12S eDNA metabarcoding of water and sediment samples indicate tidewater goby presence in several systems within Pismo State Beach and Oceano Dunes SVRA, including Pismo Creek, Carpenter Creek, Meadow Creek, Arroyo Grande Creek, and Oso Flaco Creek. These detections, as well as detections of other fish species, were consistent with results of seines run concurrently to environmental sample collection. However, the novel observation of tidewater goby in Oso Flaco Lake may require further investigation due to possible sample contamination (Abrecht and Jacobs 2025).

Amphibians

California Red-legged Frog (CRLF)

CRLF (*Rana draytoniia*) is the largest native frog in California (3.3–5.4 inches) and has been found at elevations from sea level to about 5,000 feet, with most observations occurring below 3,500 feet (USFWS 2002). Historically, CRLF was common in coastal habitats from Point Reyes National Seashore, Marin County, California, and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California, Mexico (Hayes and Jennings 1988). CRLF has historically also been found through the north Sacramento Valley into the foothills of the Sierra Nevada mountains, south to Tulare County, and possibly in Kern County. CRLF has been extirpated or nearly extirpated from over 70 percent of its former range (Hayes and Jennings 1988, USFWS 1996). Currently, CRLF occurs along the northern and southern coast ranges and is common in the San Francisco Bay Area and along the central coast in Monterey, San Luis Obispo, and Santa Barbara counties (USFWS 2002). Additionally, there are isolated areas in the Sierra Nevada foothills inhabited by CRLF. The most secure aggregations of CRLF are found in aquatic sites that support substantial riparian and aquatic vegetation and lack non-native predators such as American bullfrogs (*Lithobates catesbeianus*).

CRLF inhabits lowlands and foothills in or near permanent sources of deep water. These riparian habitats are characterized by dense, shrubby riparian vegetation associated with deep (2 feet),

still, or slow-moving water (Jennings and Hayes 1994). The shrubby vegetation preferred by CRLF is arroyo willow, cattails, and bulrushes found in wetland and riparian habitats. A breeding pond or slow-flowing stream reach or deep pool within a stream with vegetation or other material to which egg masses may be attached is important to CRLF. These areas must hold water long enough for tadpoles to complete their metamorphosis into juvenile frogs that can survive outside of water (Jennings and Hayes 1994). CRLF generally requires 11 to 20 weeks of permanent water for larval development and must have access to aestivation habitat. CRLF eggs are usually attached to emergent vegetation in lagoons, streams, and a variety of natural and human-made ponds. Water with a salinity of less than 4.5 percent is necessary to ensure the survival of embryonic stages. CRLF juveniles seem to favor open, shallow aquatic habitats with dense, submergent vegetation.

CRLF disperses through uplands, such as grasslands, and typically find cover amongst boulders or rocks and organic debris such as downed trees or logs, industrial debris, and agricultural features such as drains, watering troughs, spring boxes, and abandoned sheds (USFWS 2001a). CRLF also uses small mammal burrows and moist leaf litter for cover (Jennings and Hayes 1994, USFWS 1996). Incised stream channels with portions narrower and deeper than 18 inches may also provide habitat (USFWS 1996).

Within the HCP area, CRLF is currently known to occur in the Arroyo Grande Creek and Oso Flaco Lake complex including Oso Flaco Lake and Little Oso Flaco Lake. CRLF has been also found in Jack Lake, Finger Lake, Snake Lake, Little Oso Flaco Creek, and Lettuce Lake, and has been potentially observed in Carpenter Creek. These observations include CRLF found at Finger Lake and one sub-adult CRLF found at Snake Lake just outside the HCP area (Schneider 2000). CDPR Environmental Scientist staff conducted CRLF presence/absence surveys in the HCP area in accordance with the USFWS protocol (USFWS 1997) and have found CRLF at Oso Flaco Lake, Little Oso Flaco Lake, Oceano (Meadow Creek) Lagoon, and Arroyo Grande Creek and estuary, and a presumed CRLF tadpole was observed in Carpenter Creek in 2019. In March 2019, a CRLF egg mass was found in Arroyo Grande Creek. Suitable breeding habitat encompasses 178 acres within the HCP area, while upland habitat encompasses 4,827 acres.

Poor water quality and the presence of invasive species in the HCP area might adversely impact CRLF. Oso Flaco Lake is fed primarily from agricultural discharge. Water quality surveys conducted by the RWQCB identified numerous elements in the water column above regulatory limits (RWQCB, Central Coast Region 2001). In addition, non-native species, including bluegill (*Lepomis macrochirus*), black bass (*Micropterus salmoides*), goldfish (*Carassius auratus*), and crayfish (*Procambarus clarkii*) that are introduced to water bodies in the HCP area can adversely impact CRLF.

Western Spadefoot (WSF)

WSF (*Spea hammondii*) is nearly endemic to California and historically ranged from the vicinity of Redding in Shasta County southward to Mesa de San Carlos in northwestern Baja California (R. C. Stebbins 2003). WSF has been extirpated throughout most of the lowlands of southern California (R. C. Stebbins 2003) and from many historical locations in the Central Valley (Jennings and Hayes 1994, Fisher and Shaffer 1996). WSF prefers open areas with sandy or gravelly soils in habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and

mountains. WSF is almost completely terrestrial and enter water only to breed. They breed from January to May in vernal pools and drainages that form following winter or spring rains. During dry periods western spadefoot toads construct and occupy burrows that may be up to 3 feet in depth (Ruibal, Tevis, Jr. and Roig 1969). Individuals may remain in these burrows for 8 to 9 months. The burrows are typically constructed in soils that are relatively sandy and friable as these soils facilitate both digging and water absorption (Ruibal, Tevis, Jr. and Roig 1969). WSF forages on a variety of insects, worms, and other invertebrates.

The WSF is often difficult to detect due to extended periods of its life cycle spent underground. Very little is known about spadefoot toad at the HCP area, and the few HCP area sightings that exist have been incidental. The last incidental sighting was at the Eucalyptus Tree vegetation island in 2011 (one suspected sighting) while doing pitfall trapping. A WSF was also observed at Oso Flaco Lake in February and March of 2000. Other ephemeral waters sources within the HCP may be used by WSF for breeding. Vegetation islands and open sand areas may be used during dispersal and winter. In addition, suitable habitat for WSF is present within the SVRA in wet years. WSF was consistently seen in upland habitat during rain events between November 2023 and March 2024 at the Guadalupe Restoration Project, the former oil field that is owned and managed by Chevron Corporation (Little, S. pers. comm. 2024).

Reptiles

Southwestern Pond Turtle (SWPT)

SWPT (*Actinemys pallida*) occurs from northern Baja California into Oregon, Washington, and British Columbia (mostly west of the Sierra Nevada-Cascade crest) (R. C. Stebbins 2003). At this time, SWPT may be extinct in western Washington and British Columbia. SWPT is typically found at elevations ranging from sea level to approximately 4,980 feet (R. C. Stebbins 2003).

SWPT utilizes a wide variety of permanent and ephemeral aquatic habitats and may spend a significant amount of time in upland terrestrial habitats as well. SWPT aquatic habitats typically include permanent freshwater ponds, lakes, marshes, streams, and rivers. It favors sites with deep pools and with an abundance of basking sites, such as partially submerged logs or rocks, matted emergent vegetation, floating aquatic vegetation or exposed shorelines. Undercut banks, root masses, and boulder piles provide underwater escape cover, especially for small hatchlings and smaller turtles that behave more cryptically and are more susceptible to predation.

Terrestrial habitat requirements are variable throughout the range but must include basking sites and nesting habitat. In most areas, terrestrial overwintering habitat is also required (Reese 1996). While emergent basking sites are preferred because they offer some protection from terrestrial predators and quick escapes to deep water, terrestrial basking sites are also utilized. Terrestrial basking sites include mud banks, rocks, logs, and root wads on the bank, and are never far from water. Nesting occurs terrestrially, usually in open low-slope areas a few feet to over 300 feet from the watercourse. The nest site typically has good exposure to the sun and compact soil (Holland 1994, Reese 1996). Overwintering can be aquatic or terrestrial (Holland 1994). Terrestrial overwintering site characteristics are highly variable, but the microsite usually includes a thick duff layer (Holland 1994).

In the HCP area, SWPT is often seen basking along the shoreline of Oso Flaco Lake. In June 2001, during a visual survey for CRLF, five SWPT were observed in the lake. SWPT individuals

were also observed in Oso Flaco Lake and Arroyo Grande Creek within the HCP area in 2006, as well as in Jack Lake nearby the HCP area. Finally, a SWPT was rescued from fishing line at Oceano Lagoon in the HCP area and sent to an approved rehabilitation clinic in September 2016. In March of 2018, a rider posted on social media that he found a SWPT in the open riding area and moved it out of harm's way. The location of this observation is unknown. Jeff Alvarez from the Wildlife Project (Little, S. pers. comm. 2024) reviewed the social media photo and confirmed the species identification. Finally, in June 2018, Resource staff found turtle tracks in the open riding area near post 3.5, and the tracks were heading into Dunes Preserve. Pictures were taken and shown to Dr. Sam Sweet, Herpetology professor at U.C. Santa Barbara, who suspected subadult SWPT (Little, S. pers. comm. 2024). There are three occurrences of SWPT near Oceano Campground at Oceano Lagoon and one occurrence near North Beach Campground near Pismo Creek, all recorded within the last few years (iNaturalist 2024). Lastly, on an unknown date Holland observed SWPT at Pismo Creek (CNDDB 2025). The non-native species that have been documented at Oso Flaco Lake and the Oceano Lagoon have the potential to compete with or prey upon the native western pond turtles within the HCP area.

Northern California Legless Lizard

Northern California legless lizard (*Anniella pulchra*) is a secretive fossorial lizard that is common in California that can be found from the southern edge of the San Joaquin River in northern Contra Costa County to the northwestern Baja California Del Norte just south of Colonia Guerrero. Northern California legless lizard has five lineages, with Lineage D occurring in the HCP. Legless lizard occurs in scrub, sandy washes, and riparian habitats with moist, sandy soils. Legless lizards usually forage at the base of shrubs or other vegetation either on the surface or just below it in leaf litter or sandy soil. Legless lizards eat insect larvae, small adult insects, and spiders (R. C. Stebbins 1954). Legless lizards sometimes seek cover under surface objects such as flat boards and rocks where they lie barely covered in loose soil. They are often encountered buried in leaf litter and commonly burrow near the surface through loose soil.

A Northern California legless lizard was also documented in 2006 along the proposed Little Oso Flaco Lake Access Road alternative. In addition, Northern California legless lizards have been observed in the designated campgrounds in the HCP area and within the vegetation islands as recently in 2016 and near the Oso Flaco boardwalk in 2019. Northern California legless lizards have also been observed at Little Oso Flaco Lake, Jack Lake, and near Lettuce Lake. Legless lizards may also occur in coastal dune scrub and riparian habitat near freshwater within the HCP. The species is vulnerable to habitat destruction, including the disturbance of surface soils and the spread of invasive vegetation (Jennings and Hayes 1994).

Coast Horned Lizard

Historically, coast horned lizard (*Phrynosoma blainvillii*) has been found along the Pacific coast from Baja California, west of the deserts and the Sierra Nevada, north into the Bay Area, and as north as Shasta Reservoir. Coast horned lizard occur in the Sierra Nevada foothills from Butte County to Kern Plateau and throughout the central and southern California coast. It occurs in chaparral, grasslands and coniferous forest habitats in fine, loose soils. This species inhabits friable, rocky, or shallow soils for burial, open areas for sunning, bushes for cover, and in areas with abundant supply of ants and other insects. Horned lizards forage on the ground in open areas, usually between shrubs and often near ant nests. Horned lizards often bask in the early

morning on the ground or on elevated objects such as low boulders or rocks. Horned lizards avoid predators and extreme heat by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed into the soil under surface objects such as logs or rocks, in mammal burrows, or in crevices. In addition, a coast horned lizard was documented in 2006 along the proposed Little Oso Flaco Lake Access Road alternative. Since that time, anecdotal records of coast horned lizard have been reported for various vegetation islands within the HCP area. A coast horned lizard was observed in January 2017 within the Chevron property just south of the Guadalupe-Nipomo Dunes National Wildlife Refuge (NWR) south of the HCP area. Most recently, coast horned lizard has been documented in the HCP area in 2022. This species may utilize a variety of habitat locations within the HCP area including the vegetation island and the western interface of sand and silver dune lupine-mock heather scrub habitat within the HCP.

Birds

Western Snowy Plover

SNPL (*Charadrius nivosus nivosus*) is a resident along the Pacific Coast from British Columbia to Mexico and along the Gulf Coast from Texas to the Florida Panhandle. It also breeds locally in the interior from California and Nevada east to Oklahoma and Texas. The Pacific Coast population of the SNPL is defined as those individuals that nest adjacent to tidal waters of the Pacific Ocean, and includes all nesting birds on the mainland coast, peninsulas, offshore islands, adjacent bays, estuaries, and coastal rivers (USFWS 2004). The current known breeding range of this population extends from Damon Point, Washington, to Bahia Magdelena, Baja California, Mexico (USFWS 2000).

SNPL winters and breeds in the same habitats, consisting of mostly sandy, ocean fronting beaches, dry salt flats, and gravel bars (Page, Warriner, et al. 1995, Colwell, et al. 2005, Brindock and Colwell 2011). SNPL requires sandy, gravelly or friable soils for nesting. Nests typically are found on flat, open areas of the back beach or bankdunes where vegetation is sparse or non-existent. Many beaches that support SNPL nesting, foraging, and wintering, are bordered to the east by dense stands of European beachgrass, which often form an abrupt boundary that defines unsuitable habitat for SNPL (Patrick and Colwell 2014). SNPL typically nests, forages, and winters on flat to gently sloping, wide beaches with plentiful food sources and sparse vegetation (Page, Warriner, et al. 1995, Colwell, et al. 2005, MacDonald, Longcore and Dark 2010, Muir and Colwell 2010, Brindock and Colwell 2011). Selecting habitats that are open (or wide) and have less vegetative cover can facilitate early detection of predators and reduce predation risk (Muir and Colwell 2010, Brindock and Colwell 2011, Patrick and Colwell 2014). SNPL nests have been found adjacent to small clumps of vegetation or other beach debris that likely provides additional cover making it more difficult for predators to spot (Page, Stenzel and Ribic 1985, Powell 2001),. In addition, SNPL broods have been observed hiding in vegetation clumps in response to adult alarm calls (Webber, Heath and Fischer 2013). In general, SNPL nests are most often located within 328 feet of water, or at least within sight of it (Stenzel, Peaslee and Page 1981, USFWS 2007). After the chicks hatch, they tend to move into areas where there is at least some vegetation or beach debris, which provides cover from the heat of the sun, inclement weather, and predators.

Along the Pacific Ocean coastline, SNPL forages in a wide variety of habitat types, from the dry sandy regions of the backdunes, to wet sands, beach-cast kelp, and wrack lines along the lower

beaches. They may use freshwater edges such as the mouths of creeks as they cross beaches and the edges of lagoons. Their diet can vary considerably but primarily consists of small marine and terrestrial invertebrates. They also pick insects off vegetation, probe sand, and occasionally take small fish (USFWS 2007).

SNPL is known to nest and winter within the HCP area. SNPL individuals occupying the HCP area are part of the Pacific Coast population and may comprise resident breeders that do not migrate, migratory breeders that leave during the winter months (October to February) and return at the onset of the breeding season, and wintering birds that migrate from interior or other coastal breeding sites, arriving in November and remaining until February (Warriner, et al. 1986). SNPL regularly breeds in the HCP area along the open-sand beach from Post 6 south from March to mid-September (CDPR 2023). Approximately 300 acres of active riding and camping area south of Post 6 are closed during the breeding season for SNPL and CLTE (CDPR 2023). SNPL has also infrequently been observed breeding adjacent to Arroyo Grande Creek. SNPL winters in the HCP area from October to February. A total of 4,513 acres within the HCP area are considered suitable habitat for SNPL, although 3,565 acres are considered tertiary habitat where SNPL is unlikely to nest, roost, or forage (Figure 6-2).

California Least Tern

CLTE (*Sternula antillarum browni*) is a colonial nesting seabird that nests along the Pacific Coast from Baja California to San Francisco Bay, California (Grinnell 1928, Small 1994, Thompson., et al. 1997, USFWS 2006), (Small 1994). Nesting also occurs sporadically at inland sites in the San Francisco Bay Delta and Central Valley (USFWS 2009a).

CLTE often nests in habitats similar to those of SNPL, and there is often an overlap with the two species breeding on the same beach (Powell and Collier 2000). CLTE nesting colonies along the California coast are typically located on broad dune-backed sandy beaches or small sandspits where vegetation is either sparse or altogether absent (Page, Warriner, et al. 1995). Nests may be found from within several feet of the shore to more than a mile inland. Nests are normally located in open areas where aerial and terrestrial predators can be detected at a distance. When threatened, adult CLTE will leave the nest and aggressively harass an intruder by mobbing, defecating, and vocalizing. CLTE is known to nest in the HCP area along the open, sandy beaches above the high tide line.

CLTE forages primarily in near-shore ocean waters and in shallow estuaries and lagoons (Massey 1988). They are most commonly observed foraging over the ocean, though they are regularly observed at Oso Flaco Lake and Pismo Lake, as well as the small lagoon that forms at the mouth of Pismo Creek. At colonies where feeding activities have been studied, CLTE forages mostly within 2 miles of the breeding area and primarily in near shore ocean waters less than 60 feet deep (Atwood and Minsky 1983). CLTE feeds on fish caught by diving into the surface waters of freshwater lakes, lagoons, and oceans.

Colonial breeding of CLTE is typically on bare or sparsely vegetated flat substrates, sandy beaches, alkali flats, landfills or paved areas. CLTE regularly breeds in the HCP area along the open sand beach from Post 6 south from April to August. Approximately 300 acres of active riding and camping area south of Post 6 are closed during the breeding season for SNPL and CLTE (CDPR 2023). A total of 4,593 acres within the HCP area are considered suitable breeding and roosting habitat for CLTE, although 3,565 acres are considered tertiary habitat where CLTE

is unlikely to occur (Figure 6-2). An additional 80 acres of aquatic habitat within the HCP area is considered suitable foraging habitat for CLTE.

Least Bittern

Least bittern (*Ixobrychus exilis*) is a year-round resident in southern California and breeds in northeastern California, the central coast, the Central Valley, the southern coast, and the southern deserts. Least bitterns nest in freshwater and brackish marshes, borders of ponds, and reservoirs with tall, dense emergent vegetation and clumps of woody plants over deep water for ample cover and breeding. This species builds nests on platforms of live and dead stalks, usually 6–30 inches above the water in emergent vegetation. They forage from emergent vegetation by stalking prey near the surface of the water. Least bittern is an uncommon breeder within the HCP area and is limited to breeding in suitable aquatic habitat, such as Oso Flaco Lake (HCP Appendix A). Within the HCP area, least bittern has been observed as recently as September 2021 at Oso Flaco Lake and has been confirmed to breed there as recently as May 2016 at this location (eBird 2022). Suitable breeding and nesting habitat may include dense emergent vegetation around Oso Flaco Lake and Pismo Lake.

Cooper's Hawk

Cooper's hawk (*Accipiter cooperii*) occurs year-round in California, except in the southeast corner, where it is known to be a winter resident only. The species inhabits various types of temperate deciduous forest and mixed forests and is adaptable to other various habitat types including forested mountainous regions, especially foothills. Nesting sites for Cooper's hawk are typically in trees 25-50 feet high, and often on flat ground rather than hillsides, and in dense woods. Nests are piles of sticks 27 inches in diameter (All About Birds 2025). Eggs hatch within 36 days, and chicks leave the nest within 34 days. Cooper's hawks are known to forage in grasslands, preying on smaller bird species and small mammals. Cooper's hawk is a resident of the HCP area and is likely to breed in the area.

Northern Harrier

Northern harrier (*Circus hudsonius*) occurs throughout lowland and coastal California and has been recorded in areas of high elevation during autumn. In California, northern harriers have been found in habitats including freshwater marshes; brackish and saltwater marshes; wet meadows; weedy borders of lakes, rivers, and streams; annual and perennial grasslands (including those with vernal pools); weed fields; ungrazed or lightly grazed pastures; some croplands (especially alfalfa, grain, sugar beets, tomatoes, and melons); sagebrush flats; and desert sinks (Smith 2011). Northern harrier is a ground-nesting species. The nest is usually placed in a dense clump of vegetation, such as willows, grasses, sedges, reeds, or cattails. Eggs hatch within 36 days and chicks leave the nest within 14 days of hatching. Females incubate eggs and brood chicks, while males provide most of the food for the females and nestlings. In the breeding season, northern harriers eat small mammals, reptiles, amphibians, and birds. During winter, northern harriers feed almost exclusively on voles; they also eat mice, shrews, rabbits, and songbirds (Smith 2011). Northern harriers are typically observed in the winter months (e.g., October through February) in the HCP area; however, they are a confirmed, but rare breeder at Oso Flaco Lake (Condor, Environmental Planning Services Inc. 2006). Suitable habitat for northern harrier includes Oso Flaco Lake, Oceano Lagoon, and Pismo Lake. They are often seen

foraging in the Oso Flaco area and can be found foraging within the riding area of the SVRA as well.

White-tailed Kite

White-tailed kite (*Elanus leucurus*) is found year-round in lowland aeras west of the Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border. They are residents of the central coast of California (Peterson 1990). White-tailed kites are residents in a variety of open habitats, including low foothills or valley areas with oak trees, riparian areas, and marshes near open grasslands for foraging. This species preys upon a variety of small mammals and other vertebrates. Nests are constructed mostly of twigs and placed in small to large trees, often at habitat edges or in isolated groves (Dunk 1995). White-tailed kites have been observed in the HCP area as recently as September 2021. Suitable nesting and wintering habitat in the HCP 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. However, a white-tailed kite nest has never been documented in the HCP area (HCP Appendix A). Therefore, it is likely only a rare breeder within the area.

Prairie falcon

Prairie falcon (*Falco mexicanus*) occurs year-round in much of California and is known to winter in northwestern California and some parts of the Central Valley. They inhabit either level or hilly dry, open terrain, in habitats including shrub-steppe desert, grasslands, mixed shrub and grasslands, and alpine tundra. They are known to nest in cliffs, but could nest in trees or other structures such as buildings or powerline structures. Most cliff nest sites have some overhand to protect the nest from sun and weather, which may reduce nest failures (Steenhof 2024). Eggs hatch within 33 days, and chicks leave the nest an average of 38 days. Prairie falcon has been observed in the HCP area as recently as 2022 at Oso Flaco Lake.

Burrowing Owl

Western burrowing owl (*Athene cunicularia*) occurs throughout the lowlands of California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; it is rarely observed along the southern coast. It is a ground-dwelling owl, typically found nesting in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. Western burrowing owls may use a variety of habitats within the HCP area but are restricted to areas with low or no vegetation and the presence of small mammal burrows (e.g., ground squirrel [*Otospermophilus beecheyi*]) to provide shelter from predators or inclement weather, as well as to provide a nesting location. Foraging habitat is often present in grassland areas. In California, burrowing owls breed from February 1 to August 31, with some variances by geographic location and climatic conditions. The non-breeding season (i.e., wintering season) for burrowing owl occurs from September 1 to January 31. Burrowing owls prefer short-grass grasslands with burrow networks, and frequently with boulder fields or rock outcrops. Burrows are frequently modified by these owls. Constructed burrows are readily occupied by burrowing owls and have been constructed for habitat enhancement and mitigation in several sites in California. Western burrowing owls have also been observed using sand dune cavities under ice plant, driftwood piles, culverts, concrete rubble piles, rock outcrops, and standpipes for burrows or winter cover. The burrowing owl is known to utilize the HCP area during migration but does not breed within

the area. It is also known to be an infrequent winter visitor within the HCP area (HCP Appendix A). It was observed 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 near the Oso Flaco Lake parking lot in 2019. In addition, burrowing owl tracks were observed at Pavilion Hill in 2016 (Chapman 2016). The most recent observation made by Oceano Dunes SVRA field staff was in January 2022 at Cable Fence, near Post 8 and North Oso Flaco (CDPR 2024).

Loggerhead Shrike

Loggerhead shrike (*Lanius ludovicianus*) is a common resident and winter visitor in lowlands and foothills throughout California; it is rarely observed in the winter on the coastal slope north of Mendocino County. Loggerhead shrikes inhabit scattered shrubs, trees, posts, fences, utility lines, or other perches. Loggerhead shrikes breed mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They require tall shrubs or trees (they also use fences or power lines) for hunting perches, territorial advertisement, and pair maintenance. They require short grasses, forbs, or bare ground for hunting, and large shrubs or trees for nest placement. They also need impaling sites for prey manipulation or storage, which can include sharp, thorny, or multi-stemmed plants and barbed-wire fences. Loggerhead shrikes often build their nests in thorny vegetation, which may help keep predators away. In the absence of trees or shrubs, they may sometimes nest in brush piles or tumbleweed. Nests are typically 2.5 to 4 feet above the ground (Yosef 1996). Eggs hatch within 17 days and chicks leave the nest within 20 days of hatching. Second broods are common. This species primarily feeds on insects (Yosef 1996). Loggerhead shrikes are resident birds that commonly nest within the HCP area.

California Horned Lark

California horned lark (*Eremophila alpestris actia*) primarily occurs in coastal regions ranging from Sonoma County to San Diego County as well as the main part of the San Joaquin Valley and the foothills to the east. California horned lark occurs in a variety of open habitat, usually where large shrubs and trees are absent including short-grass prairie, “bald” hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. This species can be found from the coastal strand and deserts near sea level to alpine dwarf-shrub habitat above the treeline. This species can be found in disturbed habitats, including plowed fields, bayfill, and graded land. Along the coast, California horned larks often share nest sites with SNPL and CLTE, although they are generally uncommon in this habitat and occur in low numbers. California horned lark breeds from March through July, with peak activity in May. Nests are built in a shallow depression on the ground and made of grass lined with feathers and soft materials. Incubation lasts between 10 and 12 days, and the chicks leave the nest within 12 days of hatching. California horned larks are present year-round in the HCP area and likely breed in the area each year. They have also been observed in the National Wildlife Refuge to the south of the HCP area. California horned larks have been seen on nests or with young chicks within the seasonal exclosure, including within North Oso Flaco Exclosure, Boneyard Exclosure, and the 6 Exclosure (George 2019). This habitat where they have been observed to nest in is similar habitat to western snowy plover and California least tern. They may nest and forage in a variety of low-grass or bare habitats within the HCP area.

Yellow-breasted Chat

Yellow-breasted chats (*Icteria virens*) range from southern Canada to central Mexico and winter from the southern U.S. to Panama, occurring in California as a migrant and summer resident. This species is widely distributed in California except in much of the Central Valley and parts of the southern coastal slope. Nesting yellow-breasted chats occupy early successional riparian habitat with a well-developed shrub layer and an open canopy. Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers. The yellow-breasted chat was recorded within the Oceano Dunes SVRA in 2000 at the Oso Flaco Maps Station and at Oso Flaco Lake as recently as April 2022 (eBird 2022). Nesting on-site is unconfirmed but possible.

Yellow Warbler

Yellow warbler (*Setophaga petechia*) primarily occurs as a migrant and summer resident in California. It is a common to locally abundant breeder throughout California except for most of the Mojave Desert and all of the Colorado Desert. Yellow warbler nests have been found throughout California, except the Central Valley, Mojave Desert, and high altitudes in the Sierra Nevada; they are known to winter along the Colorado River and in parts of Imperial and Riverside Counties. The yellow warbler generally occupies riparian vegetation in close proximity to water along streams dominated by willows, cottonwoods, sycamores, alders, or in mature chaparral and in wet meadows. Throughout their range, they are found in willows and cottonwoods, and in California they are found in numerous other species of riparian shrubs or trees, varying by biogeographic region. Yellow warblers build their nests in the vertical fork of a bush or small tree such as willow or other riparian species. The nest is typically about 10 feet off the ground but occasionally may be up to about 40 feet (Lowther, et al. 1999). Eggs hatch within 13 days and chicks leave the nest within 12 days of hatching (Lowther, et al. 1999). This species primarily feeds on insects. The yellow warbler has been documented within the HCP area during breeding season and has been observed at Arroyo Grande Creek, Jack Lake, Little Oso Flaco Lake, and Oso Flaco Lake. Yellow warbler is limited to breeding in riparian habitats found within the HCP (HCP Appendix A). There is marginal foraging and nesting habitat for yellow warbler present in riparian areas of the HCP area.

Nesting Birds

The HCP area hosts numerous nesting birds within its diverse habitats. Ground-nesting birds, such as killdeer (*Charadrius vociferus*), California horned lark, SNPL, and CLTE nest on the wide, open beaches. Waterbirds, such as least bittern, black-crowned night heron (*Nycticorax nycticorax*), mallard (*Anas platyrhynchos*), and green heron (*Butorides virescens*) nest in the lakes, including Oso Flaco Lake and Pismo Lake. Birds such as yellow warbler, marsh wren (*Cistothorus palustris*), Pacific-slope flycatcher (*Empidonax difficilis*), and Allen's hummingbird (*Selasphorus sasin*) nest within riparian habitats surrounding creeks and lakes in the HCP area. Raptors, such as red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), white-tailed kite, northern harrier, and Cooper's hawk nest within trees in the HCP area. Birds adapted to a higher level of disturbance, such as American crow (*Corvus brachyrhynchos*), Eurasian collared dove (*Streptopelia decaocto*), house finch (*Carpodacus mexicanus*), cliff swallow (*Petrochelidon pyrrhonota*), western scrub jay (*Aphelocoma californica*), and rock pigeon (*Columba livia*) nest within the developed areas of the HCP area.

Wintering/Migratory Birds

Due to its location within the Pacific Flyway, the HCP area hosts numerous wintering and migratory birds each year, including shorebirds, waterbirds, raptors, and songbirds. The HCP area contains numerous birding hotspots which are defined as areas of high bird concentrations or diversity during spring and fall migration. The primary birding hotspots in the HCP area include Oso Flaco Lake, Oceano Lagoon, and Oceano Campground. Special-status species known to winter or migrate through the HCP area include redhead (*Aythya americana*), brant (*Branta bernicla*), common loon (*Gavia immer*), American white pelican (*Pelecanus erythrorhynchos*), double-crested cormorant (*Nannopterum auratus*), osprey (*Pandion haliaetus*), sharp-shinned hawk (*Accipiter striatus*), bald eagle (*Haliaeetus leucocephalus*), merlin (*Falco columbarius*), mountain plover (*Charadriu montanus*), long-billed curlew (*Numenius americanus*), black tern (*Chidonias niger*), California gull (*Larus californicus*), black skimmer (*Rynchops niger*), elegent tern (*Thalasseus elegens*), marbled murrelet (*Brachyramphus marmoratus*), Vaux's swift (*Chaetura vauxi*), black swift (*Cypseloides niger*), willow flycatcher (*Empidonax trailii*), bank swallow (*Riparia riparia*), tricolored blackbird (*Agelaius tricolor*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), Lucy's warbler (*Oreothylpis luciae*), and summer tanager (*Piranga rubra*). Wintering/migratory birds are not typically protected unless they are special-status species.

Bats

Pallid Bat

Pallid bats (*Antrozous pallidus*) are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs throughout California except in the high Sierra from Shasta to Kern counties and the northwest coast and is primarily found at lower and mid-elevations. Pallid bat occurs in a number of habitats including deserts, grasslands, shrubland, and forests. It is most common in areas with open space, and forages along river channels. Pallid bats are most abundant in the arid Sonoran life zones below 6,000 feet but have been found up to 10,000 feet in the Sierra Nevada. They often roost in colonies of between 20 and several hundred individuals. Roosts are typically in rock crevices in rocky outcrops and cliffs, tree hollows, mines, caves, and various structures, such as vacant and occupied buildings, bridges, and bird boxes. Tree roosting has been documented in large conifer snags (e.g., ponderosa pine [*Pinus ponderosa*]), inside basal hollows of giant sequoias (*Sequoiadendron giganteum*), and within bole cavities in oak trees. They have also been reported roosting in stacks of burlap sacks and stone piles. Pallid bats are primarily insectivorous, feeding on large prey that is taken on the ground, or sometimes in flight (Zeiner, et al. 1990). Prey items include arthropods such as scorpions, ground crickets, and cicadas (Zeiner, et al. 1990). Pallid bats were detected during passive acoustic surveys at Oceano Lagoon nearby in the HCP area in June 2017. They may use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.

Townsend's Big-eared Bat

Townsend's big-eared bats (*Corynorhinus townsendii*) are found throughout California, except in the highest elevations of the Sierra Nevada. This species is a colonial species and is most abundant in mesic habitats. Habitat associations for this species include the inland deserts; cool, moist coastal redwood forests; oak woodlands; and lower- to mid-elevation mixed coniferous-

deciduous forests. This species prefers to roost in open surfaces of caves or cave-like structures, such as mine adits and shafts, but has also been reported in such structures as buildings, bridges, and water diversion tunnels that offer a cave-like environment. Townsend's big-eared bats forage in edge habitats along streams and areas adjacent to and within a variety of wooded habitats. This species forms maternity colonies between March and June, and these colonies typically begin to disperse in August. Townsend's big-eared bat males are typically solitary during the maternity season. This species is extremely sensitive to disturbance of roosting sites, and a single visit may result in abandonment of the roost. Townsend's big-eared bats were detected during passive acoustic surveys at Oceano Lagoon in the HCP area in June 2017. They may use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.

Western Red Bat

Western red bats (*Lasiurus blossevillii*) are locally common in some areas of California. They occur from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade Crest and deserts. Their winter range includes the western lowlands and coastal regions south of the San Francisco Bay. Western red bats roost in forests and woodlands from sea level up through mixed conifer forests. They feed over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands. Western red bats roost in tree foliage, typically in riparian habitats. This species' breeding season begins in August and September when bats mate, and births occur from late May through early July. Western red bats were detected during passive acoustic surveys at Oceano Lagoon in the HCP area in June 2017. They may use a variety of habitats within the HCP area, including tree snags and/or hollows and manmade structures.

Terrestrial Mammals

American Badger

American badger (*Taxidea taxus*) is an uncommon, permanent resident found throughout California and the western United States and Canada. The American badger is a semifossorial mammal in the weasel family (*Mustelida*e). Macrohabitat for this species includes dry, open forests and woodlands, open scrub, and grasslands. Microhabitat conditions for this species require loose, friable soils for burrow creation and foraging potential and large areas of open, uncultivated ground. Badgers are typically solitary and nocturnal but construct burrows for refuge during daylight hours. Badger burrows are usually elliptical, with only one entrance, and are located in areas with plentiful prey sources. The primary prey species for American badgers are burrowing rodents including ground squirrels and pocket gophers, which badgers typically pursue by digging into their burrows (Grinnell, Dixon and Linsdale 1937). Alternative prey resources for American badgers include mice, rats, reptiles, amphibians, and bird eggs. Young are born in the spring and independent by the end of summer. Badgers have very large home ranges, depending on available habitat. Badger males can forage across a range of approximately 1 square mile to 500 square miles, while females can range from one-half square mile to 50 square miles. However, in general, densities are one badger per square mile in occupied, prime habitat (Long 1983). The American badger was documented within the HCP area in 1991 (Burton and Kutilek 1991) and has been observed in the vegetation islands and the Phillips 66 Leasehold as recently as 2006 (Condor, Environmental Planning Services Inc. 2006). Badger tracks were also observed in April 2019 in the open riding area in BBQ flats and two small

vegetation islands, as well as in between these vegetation islands (Schaefer 2019). Inactive badger dens have also been observed in the HCP area, although this species is likely fairly uncommon in the HCP area. Badgers are likely to use the habitat in the southern portion of the HCP area that is further away from urban areas and connected to other open space.

Special-Status Plant Species List

The following table includes special-status plant species, listing status, range in California, habitat, and potential for special-status species to occur in the HCP area based on information from USFWS IPaC, CDPR survey and monitoring reports, CNDDB, and the CNPS Inventory of Rare and Endangered Plants. A total of 100 plant species were identified during the records search and were determined to have some potential to occur within the HCP area (Table C-2). The species' range/distribution, preferred habitat types, and occurrence data within the HCP area and surrounding region were evaluated to determine the potential for the species to occur within the HCP area. For each species, the potential to occur was classified into None, Low, Moderate or Present.

- None – Species range or known distribution does not overlap HCP area, or preferred habitat type(s) absent from the HCP area, or no records of past occurrence in the HCP area or surrounding region.
- Low – Species range overlaps HCP area; however, distribution is restricted to limited number of populations, suitable habitat is limited, degraded or heavily disturbed indicating low potential for population persistence, or only historical records (>30 years) of past occurrence in the HCP area or surrounding region.
- Moderate – Species range or known distribution overlaps HCP area; greater amount or higher quality suitable habitat than Low, no current records of past occurrence in the HCP area or surrounding region.
- Present – Species documented within HCP area.

Of these 100 species, 37 species have been recorded within the HCP area or have moderate potential to occur within the HCP area; however, three of these species – Monterey pine (*Pinus radiata*), Monterey cypress (*Hesperocyparis macrocarpa*), and Torrey pine (*Pinus torreyana*) – are not native to the area and are; therefore, not considered special-status within the HCP area. In addition, there are also six special-status plant species – short-loped broomrape (*Apyllon parishii* ssp. *brachyloba*), sand mesa manzanita (*Arctostaphylos rudis*), California sawgrass (*Cladium californicum*), San Luis Obispo wallflower (*Erysimum capitatum* var. *lompocense*), mesa horkelia (*Horkelia cuneata* ssp. *puberula*), and aparejo grass (*Muhlenbergia utilis*) – that occur or may occur in the HCP area, but are rare and not expected to be encountered during covered activities. Thus, 28 special status plant species have the potential to be impacted by covered activities. These species include the six listed species described in the HCP and 22 additional species determined to potentially be impacted by covered activities based on habitat or past occurrence in the HCP area. An account of each of the 28 special status plant species that occurs within the HCP area and is potentially affected by covered activities follows Table C-2. A discussion of the existing covered activities that may affect special-status plant species is provided in Appendix D.

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
red sand verbena *Abronia maritima*	CRPR 4.2	Along coast from SLO County to Mexican border.	Coastal dunes; 0-100 m.	Perennial herb, Feb.-Nov.	Present - Locally common in the foredunes in the Oceano Dunes SVRA.	3, 4, 5
Hoover's bent grass *Agrostis hooveri*	CRPR 1B.2	Endemic, coastal SLO and Santa Barbara counties.	Closed cone coniferous forest, chaparral, cismontane woodland or valley and foothill grassland usually on sandy soils; 6-610 m.	Perennial herb, Apr.-Jul.	Low - Limited suitable habitat; records from nearby but not in HCP area.	2, 3, 4, 5
Douglas' fiddleneck *Amsinckia douglasiana*	CRPR 4.2	Endemic, west of the Sierras from Monterey County to Santa Barbara & in Tehachapi Ranges.	Cismontane woodland or valley and foothill grassland on Monterey shale; 0-1,950 m.	Annual herb, Mar.-May	None - No suitable habitat and no records from HCP area or nearby.	3, 4
aphanisma *Aphanisma blitoides*	CRPR 1B.2	Found in Los Angeles, Orange, San Diego, Santa Barbara, and Ventura counties.	Coastal bluff scrub, coastal dunes, and coastal scrub sometimes in gravelly or sandy soils; 1-305 m.	Annual herb, Feb.-Jun.	Low - This species is not known to occur within the HCP area, and limited suitable habitat is present with the HCP area.	4, 5
short-lobed broomrape *Apyllon parishii* ssp. *brachyloba*	CRPR 4.2	Central and southern coast and offshore islands.	Coastal bluff scrub, coastal dunes or coastal scrub on sandy soils; 3-305 m.	Perennial herb (parasitic), Apr.-Oct.	Present - Known in HCP area from CDPR surveys and CNDDB from one occurrence in South Oso Flaco.	4
Santa Lucia manzanita *Arctostaphylos luciana*	CRPR 1B.2	Endemic to SLO County.	Chaparral and cismontane woodland on shale; 350-850 m.	Perennial evergreen shrub, Dec.-Mar.	None - This species is not known to occur in the HCP area and occurs at elevations higher than those within the HCP area.	4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Morro manzanita *Arctostaphylos morroensis*	FT, SC, CRPR 1B.1	Endemic to SLO County.	Chaparral (maritime), cismontane woodland, coastal dunes (pre-Flandrian) or coastal scrub on Baywood fine sand; 5-205 m.	Perennial evergreen shrub, Dec.-Mar.	None - No suitable habitat and no records from HCP area or nearby.	1, 4, 5
Bishop manzanita *Arctostaphylos obispoensis*	CRPR 4.3	Endemic to Monterey and SLO counties.	Closed-cone coniferous forest, chaparral, and cismontane woodland on serpentinite, rocky soils; 50-1,005 m.	Perennial evergreen shrub, Feb.-Jun.	None - No suitable habitat and no records from HCP area or nearby.	3, 4
Pecho manzanita *Arctostaphylos pechoensis*	CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Closed-cone coniferous forest, chaparral or coastal scrub on siliceous shale; 125-850 m.	Perennial evergreen shrub, Nov.-Mar.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
Santa Margarita manzanita *Arctostaphylos pilosula*	CRPR 1B.2	Endemic, occurs in SLO, Santa Barbara and Monterey counties.	Broad-leaved upland forest, closed-cone coniferous forest, chaparral or cismontane woodland sometimes on sandstone; 170-1,100 m.	Perennial evergreen shrub, Dec.-May	None - No records from the HCP area. Suitable habitat with shale outcrops absent.	2, 3, 4, 5
La Purissima manzanita *Arctostaphylos purissima*	CRPR 1B.2	Endemic to Santa Barbara County.	Chaparral (sandy), and coastal scrub; 60-390 m.	Perennial evergreen shrub, Nov.-May	None -HCP area is outside the known range for this species.	4, 5
sand mesa manzanita *Arctostaphylos rudis*	CRPR 1B.1	Endemic to SLO and Santa Barbara counties.	Chaparral (maritime) or coastal scrub on sandy soils; 25-322 m.	Perennial evergreen shrub, Nov.-Feb.	Present - Observed within the Phillips 66 Leasehold in 2010 by CDPR staff.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
marsh sandwort[2] *Arenaria paludicola*	FE, SE, CRPR 1B.1	Remaining extant occurrences are in SLO and Los Angeles counties.	Sandy openings in marshes and swamps (fresh water or brackish); 3-170 m.	Perennial stoloniferous herb, May-Aug.	Present - Only known extant populations at Oso Flaco Lake and in Black Lake Canyon. Observed during 2022 surveys.	1, 2, 3, 5
Nuttall's milkvetch *Astragalus nuttallii* var. *nuttallii*	CRPR 4.3	Endemic to coast from San Francisco to Santa Barbara County.	Coastal bluff scrub or coastal dunes; 3-120 m.	Perennial herb, Jan.-Nov.	Present - Known from CDPR surveys and CNDDB records to occur within HCP area including in Pismo Dunes Natural Preserve, Phillips 66 Leasehold, Oso Flaco, and vegetation islands.	3, 4, 5
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	CRPR 1B.2	Along coast from Santa Maria to San Diego.	Coastal bluff scrub or coastal scrub on alkaline soils; 10-200 m.	Annual herb, April-Oct.	Low - Determined to have a low chance of occurrence due to limited habitat in the HCP area.	4
Brewer's calandrinia *Calandrinia breweri*	CRPR 4.2	Found in coastal California from Santa Rosa to San Diego.	Chaparral, and coastal scrub on sandy or loamy disturbed sites and burns; 10-1,220 m.	Annual herb, Mar.-Jun.	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area. This species has historical occurrences just north of the HCP area within Pismo Creek.	3, 4

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

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
club-haired mariposa lily *Calochortus clavatus* var. *clavatus*	CRPR 4.3	Endemic to Los Angeles, Santa Barbara, San Benito, San Luis Obispo, and Ventura counties.	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland usually on serpentinite, clay, or rocky soils; 30-1,300 m.	Perennial bulbiferous herb, May-Jun.	None - This species is not known to occur in the HCP area. The nearest occurrences of this species are north of Pismo Beach in rocky serpentine areas surrounding San Luis Obispo and Morro Bay.	3, 4
San Luis Obispo mariposa lily *Calochortus obispoensis*	CRPR 1B.2	Endemic to SLO County.	Chaparral, coastal scrub or valley and foothill grassland often on serpentinite soils; 50-730 m.	Perennial bulbiferous herb, May-Jul.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
La Panza mariposa lily *Calochortus simulans*	CRPR 1B.3	Endemic to SLO and Santa Barbara counties.	Chaparral, cismontane woodland, lower montane coniferous forest or valley and foothill grassland on sandy, often granitic and sometimes serpentinite soils; 325-1,150 m.	Perennial bulbiferous herb, Apr.-Jun.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
Cambria morning-glory Calystegia subacaulis subsp. episcopalis	CRPR 4.2	Endemic to SLO and Santa Barbara counties.	Chaparral, cismontane woodland, coastal prairie or valley and foothill grassland usually on clay soils; 30-500 m.	Perennial rhizomatous herb, Mar.-May	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
San Luis Obispo sedge *Carex obispoensis*	CRPR 1B.2	Endemic to Monterey, San Diego, and SLO counites.	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland often in serpentine seeps and on clay soils; 10-820 m.	Perennial rhizomatous herb, Apr.-Jun.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
San Luis Obispo owl's clover *Castilleja densiflora* spp. *obispoensis*	CRPR 1B.2	Endemic to SLO County.	Meadows and seeps, or valley and foothill grassland sometimes on serpentinite soils; 10-430 m.	Annual herb (hemiparasitic), Mar.-May	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area. The nearest occurrence of this species is north of Avila Beach in rocky serpentine areas surrounding San Luis Obispo.	2, 3, 4
Monterey Coast paintbrush *Castilleja latifolia*	CRPR 4.3	Endemic to central coast.	Closed-cone coniferous forest, cismontane woodland (openings), coastal dunes or coastal scrub on sandy soils; 0-185 m.	Perennial herb (hemiparasitic), Feb.-Sep.	Present - Known from CDPR surveys to be widespread in the HCP area, including Carpenter Creek, Oso Flaco Lake, vegetation islands, Pismo Dunes Natural Preserve, and Phillips 66 Leasehold. It primarily occurs within the silver dune lupine–mock heather scrub vegetation alliance.	4, 5
California jewelflower *Caulanthus californicus*	FE, SE, CRPR 1B.1	Santa Barbara Canyon, the Carrizo Plain in San Luis Obispo County, and the Kreyenhagen Hills in Fresno County	Nonnative Grassland, Upper Sonoran Subshrub Scrub, and Cismontane Juniper Woodland; 75-90 m.	Annual herb, Feb-Mar.	None - No suitable habitat and no records from HCP area or nearby.	1, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Lompoc ceanothus *Ceanothus cuneatus* var. *fascicularis*	CRPR 4.2	Endemic to Santa Barbara and SLO counties.	Chaparral (sandy); 5-400 m.	Perennial evergreen shrub, Feb.-Apr.	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area. The nearest occurrence of this species is just east of the HCP area near Black Lake.	3, 4
Santa Barbara ceanothus *Ceanothus impressus* var. *impressus*	CRPR 1B.2	Endemic to Santa Barbara County.	Chaparral (sandy); 40-470 m.	Perennial shrub, Feb.-Apr.	None - The HCP area is outside of the usual range for this species.	4, 5
Nipomo Mesa ceanothus *Ceanothus impressus* var. *nipomensis*	CRPR 1B.2	Endemic to SLO County.	Chaparral (sandy); 30-245 m.	Perennial shrub, Feb.-Apr.	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area. There are nearby records from Black Lake Canyon.	2, 3, 4
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	CRPR 1B.1	Endemic to the San Francisco Bay Area, Monterey coast and SLO County.	Valley and foothill grassland (alkaline); 0-230 m.	Annual herb, May-Nov.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
coastal goosefoot *Chenopodium littoreum*	CRPR 1B.2	Endemic to SLO, Santa Barbara, and Los Angeles counties.	Coastal dunes; 10-30 m.	Annual herb, Apr.-Aug.	Present - Known from CDPR surveys and CNDDB records to occur at Oso Flaco Lake and Phillips 66 Leasehold. Observed as recently as 2022. Common in Vegetation Islands and stabilized backdunes.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	CRPR 1B.2	Endemic to Alameda, Colusa, Glenn, Lake, Santa Clara, San Luis Obispo, Sonoma, Tehama counties.	Chaparral (serpentinite); 305-1,000 m.	Perennial bulbiferous herb, May-Aug.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
saltmarsh bird's beak *Chloropyron maritimus* ssp. *maritimus*	FE SE 1B.2	Central and southern California coast.	Coastal dunes and coastal swamps (coastal salt); 0-30 m.	Annual herb (hemiparasitic), May-Oct.	Low - This species is not known to occur within the HCP area. The nearest occurrences are well north of the HCP near Morro Bay.	1, 5
Irish Hills spineflower *Chorizanthe aphanantha*	CRPR 1B.1	Endemic to SLO County.	Chaparral (edges, openings) or coastal scrub in gravelly, rocky, or serpentine habitat; 100-370 m.	Annual herb, Apr.-Jun.	None - No suitable habitat and no records from HCP area or nearby.	2, 3, 4, 5
Brewer's spineflower *Chorizanthe breweri*	CRPR 1B.3	Endemic to SLO and Monterey counties.	Closed-cone coniferous forest, chaparral, cismontane woodland or coastal scrub on serpentinite, rocky or gravelly soils; 45-800 m.	Annual herb, Apr.-Aug.	Low - There is limited suitable habitat for this species in the HCP area. Only one occurrence of this species has been documented within 5 miles of the HCP area, in 1977.	2, 3, 4, 5
Douglas's spineflower *Chorizanthe douglasii*	CRPR 4.3	Endemic to SLO, San Benito and Monterey counties.	Chaparral, cismontane woodland, coastal scrub or lower montane coniferous forest, and valley and foothill grassland, sometimes on sandy or gravelly soils; 55-1,600 m.	Annual herb, Apr.-Jul.	Present - Documented during previous CDPR surveys to occur within the Pavilion Hill vegetation island, in the Phillips 66 Leasehold, and by Surprise Lake.	4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Palmer's spineflower *Chorizanthe palmeri*	CRPR 4.2	Endemic to Monterey, Santa Barbara, and SLO counties.	Chaparral, cismontane woodland, and valley and foothill grassland on rocky, serpentinite soils; 55-945 m.	Annual herb, Apr.-Aug.	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area. The nearest occurrence of this species is just east of the HCP area near Arroyo Grande.	3, 4
straight-awned spineflower *Chorizanthe rectispina*	CRPR 1B.3	Endemic to SLO, Santa Barbara and Monterey counties.	Chaparral, cismontane woodland or coastal scrub; 85-1,035 m.	Annual herb, Apr.-Jul.	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area.	4
Chorro Creek bog thistle *Cirsium fontinale* var. *obispoense*	FE, SE, CRPR 1B.2	Endemic to SLO County.	Chaparral, cismontane woodland, coastal scrub or valley and foothill grassland in serpentinite seeps and drainages; 35-385 m.	Perennial herb, Feb.-Sep.	None - No suitable habitat and no records from area.	1, 2, 3, 4, 5
compact cobwebby thistle *Cirsium occidentale* var. *compactum*	CRPR 1B.2	Endemic to Los Angeles, Monterey, SLO, San Mateo, and Santa Barbara counties.	Chaparral, coastal dunes, coastal prairie, and coastal scrub; 5-150 m.	Perennial herb, Apr.-Jun.	Low - This species is not known to occur in the HCP area. Suitable habitat present; however, nearest observation is 7 miles to the south.	4, 5
surf thistle *Cirsium rhothophilum*	ST, CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Coastal bluff scrub or coastal dunes; 3-60 m.	Perennial herb, Apr.-Jun.	Present - Observed in CDPR surveys near Oso Flaco Creek and in the foredunes of the Oso Flaco area.	2, 3, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
La Graciosa thistle *Cirsium scariosum* var. *loncholepis*	FE, ST, CRPR 1B.1	Endemic to SLO, SB and Monterey counties.	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish) or valley and foothill grassland on mesic, sandy soils; 4-220 m.	Perennial herb, May-Aug.	Present - Known from CDPR surveys and CNDDB records to occur at Oso Flaco Lake, near Jack Lake, in the Callender Dunes, and at the Dune Lake complex. Critical habitat for this species is present in the HCP area.	1, 2, 3, 5
seaside cistanthe *Cistanthe maritima*	CRPR 4.2	Found in Los Angeles, Marin, Orange, San Diego, Santa Barbara, and Ventura counties.	Coastal bluff scrub, coastal scrub, and valley and foothill grassland; 5-300 m.	Annual herb, Mar.-Jun.	Low - This species is not known to occur in the HCP area. The nearest occurrence of this species is well south of the HCP area at Point Sal.	
California saw-grass *Cladium californicum*	CRPR 2B.2	Eastern and southern California.	Alkaline or freshwater meadows and seeps; 60-865 m.	Perennial rhizomatous herb, Jun.-Sep.	Moderate - Has not been found in the Oceano Dunes SVRA in recent years; however, it was documented in the CNDDB as occurring near in Black Lake Canyon in 1990.	2, 3, 4, 5
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	FE, SR, CRPR 1B.1	Endemic to SLO County.	Chaparral (margins, openings), cismontane woodland or valley and foothill grassland on sandy soils; 25-185 m.	Annual herb, May-Jul.	Low - CNDDB occurrences have been documented at Nipomo Mesa and in Grover Beach. Only limited suitable habitat for this species is present in the HCP area.	1, 2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
small-flowered morning-glory *Convolvulus simulans*	CRPR 4.2	Found in scattered locations along the coast and in the Central Valley from the Bay Area to the Mexican border.	Chaparral (openings), coastal scrub, and valley and foothill grassland in clay, seeps, and/or serpentine; 30-740 m.	Annual herb, Mar.-Jul.	Low - This species is not known to occur in the HCP area, and limited suitable habitat is present in the HCP area.	4
Gaviota tarplant *Deinandra increscens* ssp. *villosa*	FE, SE, CRPR 1B.1	Endemic to Santa Barbara County.	Coastal bluff scrub, coastal scrub, and valley and foothill grassland; 20-430 m.	Annual herb, May-Oct.	None - The HCP area is outside of the usual range for this species.	1, 4, 5
paniculate tarplant *Deinandra paniculata*	CRPR 4.2	Several counties in southern California.	Coastal scrub, valley and foothill grassland, and vernal pools, usually on vernally mesic and sometimes on sandy sites; 25-940 m.	Annual herb, Apr.-Nov.	Present - Observed in the HCP area during CDPR surveys in the southern portion of the Phillips 66 Leasehold. Suitable habitat for this plant is limited in the HCP area.	3, 4, 5
dune larkspur *Delphinium parryi* ssp. *blochmaniae*	CRPR 1B.2	Endemic to SLO, Santa Barbara, and Ventura counties.	Chaparral (maritime), coastal dunes; 0-200 m.	Perennial herb, Apr.-Jun.	Present - Targeted surveys have been conducted for this species, and it has been found in the Phillips 66 Leasehold, Coreopsis Hill, and South Oso Flaco.	2, 3, 4, 5
Eastwood's larkspur *Delphinium parryi* ssp. *eastwoodiae*	CRPR 1B.2	Endemic to SLO County.	Chaparral (openings), and valley and foothill grassland in coastal serpentine areas; 75-500 m.	Perennial herb, Mar.-Apr.	None - This species is not known to occur in the HCP area and occurs at elevations higher than those within the HCP area.	4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
umbrella larkspur *Delphinium umbraculorum*	CRPR 1B.3	Endemic to Kern, Monterey, Santa Barbara, SLO, Ventura counties.	Chaparral, and cismontane woodland; 400-1,600 m.	Perennial herb, Apr.-Jun.	Low - This species is not known to occur in the HCP area, and limited suitable habitat for this species is present in the HCP area.	2, 3, 4, 5
western dichondra *Dichondra occidentalis*	CRPR 4.2	Found in Orange, San Diego, Santa Barbara, and Ventura counties, and possibly Los Angeles and Marin counties.	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; 50-500 m.	Perennial rhizomatous herb, Mar.-Jul.	Low - This species is not known to occur in the HCP area, and limited suitable habitat for this species is present in the HCP area. The nearest occurrence is near Point Sal.	4
beach spectaclepod *Dithyrea maritima*	ST, CRPR 1B.1	Southern coast and offshore islands from San Luis Obispo to Los Angeles.	Coastal dunes, coastal scrub (sandy); 3-50 m.	Perennial rhizomatous herb, Mar.-May	Present - Known to occur at North Oso Flaco, Oso Flaco Lake and south Oso Flaco area from CDPR and CNDDB records.	2, 3, 5
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	CRPR 1B.2	Endemic to SLO County.	Chaparral, coastal scrub, and valley and foothill grassland on serpentinite, rocky soils; 20-180 m.	Perennial herb, May-Jul.	None - No suitable habitat and no records from area.	2, 3, 4, 5
mouse gray dudleya *Dudleya abramsii* ssp. *murina*	CRPR 1B.1	Endemic to SLO County.	Chaparral, cismontane woodland, and valley and foothill grassland on serpentinite soils; 90-525 m.	Perennial leaf succulent; May-Jun.	None - No suitable habitat and no records from area.	2, 3, 4, 5
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	CRPR 1B.1	Along coast from west of Paso Robles to Mexican border.	Coastal bluff scrub, chaparral, coastal scrub or valley and foothill grassland on rocky, often clay or serpentinite soils; 5-450 m.	Perennial herb; Apr.-Jun.	Low - This species is not known to occur in the HCP area. The nearest occurrences of this species are north of Avila Beach and south from Point Sal.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
small spikerush *Eleocharis parvula*	CRPR 4.3	Alameda, Contra Costa, Humboldt, Marin, Napa, Orange, SLO, Solano, Sonoma, and Ventura counties.	Marshes and swamps; 1-3,020 m.	Perennial herb, Jun.-Aug.	Low - This species is not known to occur in the HCP area. The distribution of this species is just outside of the HCP area near Big Twin Lake.	3, 4
Blochman's leafy daisy *Erigeron blochmaniae*	CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Coastal dunes, coastal scrub; 3-45 m.	Perennial rhizomatous herb; Jun.-Aug.	Present - Locally common and widespread throughout the HCP area.	2, 3, 4, 5
Saint's daisy *Erigeron sanctarum*	CRPR 4.2	Endemic to SLO and Santa Barbara counties.	Chaparral, cismontane woodland, and coastal scrub; 75-350 m.	Perennial rhizomatous herb; Mar.-Jul.	None - No suitable habitat and no records from area.	3, 4
Indian Knob mountainbalm *Eriodictyon altissimum*	FE, SE, CRPR 1B.1	Endemic to SLO County.	Chaparral (maritime), cismontane woodland or coastal scrub on sandstone; 80-270 m.	Perennial evergreen shrub, Mar.-Jun.	None - No suitable habitat and no records from area.	1, 2, 3, 4, 5
Hoover's button-celery *Eryngium aristulatum* var. *Hooveri*	CRPR 1B.1	Extant occurrences in Alameda, San Benito, San Diego and SLO counties.	Vernal pools; 3-45 m.	Annual/perennial herb, Jul.-Aug.	None - No suitable habitat and no records from area.	2, 3, 4, 5
San Luis Obispo wallflower *Erysimum capitatum* var. *lompocense*	CRPR 4.2	Endemic to SLO and Santa Barbara counties.	Chaparral and coastal scrub in sandy soils; 60-500 m.	Perennial, Feb.-May	Moderate- This species has been observed on the sand dunes near the outlet near Oso Flaco Lake in 1951 and 1962.	3, 4
suffrutescent wallflower *Erysimum suffrutescens*	CRPR 4.2	Endemic to and southern coast.	Coastal bluff scrub, chaparral (maritime), coastal dunes or coastal scrub; 0-150 m.	Perennial herb, Jan.-Jul.	Present - Locally common and widespread throughout the HCP area.	3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Irish Hills monkeyflower *Erythranthe serpentinicola*	CRPR 1B.1	Endemic to SLO County.	Chaparral (openings), and meadows and seeps (edges) in mesic, rocky, and/or serpentine; 60-360 m.	Annual herb, Feb.-May	None - No suitable habitat and no records from area.	3, 4, 5
San Benito poppy *Eschscholzia hypecoides*	CRPR 4.3	Endemic to central coast and coast ranges.	Chaparral, cismontane woodland, and valley and foothill grassland or clay or serpentine soils; 200-1,500 m.	Annual herb, Mar.-Jun.	None - No suitable habitat and no records from area.	3, 4
trumpet-throated gilia *Gilia tenuiflora* ssp. *amplifaucalis*	CRPR 4.3	Endemic to Monterey and SLO counties.	Cismontane woodland, and valley and foothill grassland in sandy soils; 390-900 m.	Annual herb, Mar.-Apr.	None - No suitable habitat and no records from area.	3, 4
Monterey cypress *Hesperocyparis macrocarpa*	CRPR 1B.2	Endemic to Monterey County, but spread elsewhere artificially.	Closed-cone coniferous forest; 10-30 m.	Perennial evergreen tree.	Present - Observed in the HCP area; however, this species is not native in the HCP are and is only considered rare in Monterey County.	4, 5
Mesa horkelia *Horkelia cuneata* var. *puberula*	CRPR 1B.1	Endemic to central and southern coast.	Chaparral (maritime), cismontane woodland, coastal scrub on sandy or gravelly soils; 70-810 m.	Perennial herb, Feb.-Sep.	Moderate- Documented by the CNDDB within the Oceano Dunes SVRA at Oso Flaco Lake. However, the species was last documented at Oso Flaco Lake in 1973.	2, 3, 4, 5
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	CRPR 1B.1	Endemic to coast from San Francisco Bay Area to vicinity of Lompoc.	Closed-cone coniferous forest, chaparral (maritime), coastal dunes or coastal scrub in sandy or gravelly openings; 10-200 m.	Perennial herb, Apr.-Sep.	Present - Observed in the Pismo Dunes Natural Preserve, in Pismo State Beach and in the Phillips 66 Leasehold during CDPR surveys.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	CRPR 4.2	Central and southern coast.	Coastal dunes (mesic), meadows and seeps (alkaline seeps) or marshes and swamps (coastal salt); 3-900 m.	Perennial rhizomatous herb, Mar.-Jun.	Present - Observed in the HCP area in the Meadow Creek, Pismo Dunes Natural Preserve, and in the vegetation islands during previous Oceano Dunes District surveys.	3, 4
blushing layia *Layia erubescens*	CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Coastal dunes and coastal scrub in openings and/or in sandy soils; 10-245 m.	Annual herb, Mar.-May	Present - Observed in the Phillips 66 Leasehold in 2022.	2, 3, 5
Jones' layia *Layia jonesii*	CRPR 1B.2	Endemic to SLO County.	Chaparral or valley and foothill grassland or clay or serpentinite soils; 5-400 m.	Annual herb, Mar.-May	None - No suitable habitat and no records from area.	2, 3, 4, 5
large-flowered leptosiphon *Leptosiphon grandiflorus*	CRPR 4.2	California endemic found in scattered locations along the coast and in the Coast Ranges.	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, and valley and foothill grassland usually in sandy soils; 5-1,220 m.	Annual herb, Apr.-Aug.	Low - This species is not known to occur within the HCP area. The nearest occurrences of this species are near San Luis Obispo and south of Santa Maria.	4
spring lessingia *Lessingia tenuis*	CRPR 4.3	California endemic found along the coast from the Bay Area to Santa Clarita.	Chaparral, cismontane woodland, and lower montane coniferous forest in openings; 300-2,150 m.	Annual herb, May-Jul.	None - This species is not known to occur in the HCP area and occurs at elevations higher than those within the HCP.	4

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
fuzzy prickly phlox *Linanthus californicus* ssp. *tomentosus*	CRPR 4.2	Endemic to SLO and Santa Barbara counties.	Coastal dunes; 1-185 m.	Perennial deciduous, Mar.-Aug.	Present - Observed during previous CDPR surveys in the Pismo Dunes Natural Preserve, Phillips 66 Leasehold, and the backdunes of South Oso Flaco.	3, 4, 5
small-leaved lomatium *Lomatium parvifolium*	CRPR 4.2	Endemic to Monterey, Santa Cruz, and SLO counties.	Closed-cone coniferous forest, chaparral, coastal scrub, and riparian woodland on serpentinite soils; 20-700 m.	Perennial herb, Jan.-Jun.	None - No suitable habitat and no records from area.	3, 4
San Luis Obispo County lupine *Lupinus ludovicianus*	CRPR 1B.2	Endemic to SLO County.	Chaparral or cismontane woodland on sandstone or sandy soils; 50-525 m.	Perennial shrub, Apr.-Jul	Low - Determined to have a low chance of occurrence due to the limited suitable habitat in the HCP area.	2, 3, 4, 5
Nipomo Mesa lupine *Lupinus nipomensis*	FE, SE, CRPR 1B.1	Endemic to SLO County.	Coastal dunes; 10-50 m.	Annual herb, Dec.-May	Present - Observed in the HCP area in the eastern part of the Phillips 66 Leasehold in San Luis Obispo County Land Conservancy surveys; also known from CNDDB records.	1, 2, 3, 5
Jones' bush mallow *Malacothamnus jonesii* var. *gracilis*	CRPR 1B.1	Endemic to Santa Barbara and SLO counties.	Chaparral usually in rocky soils; 190-575 m.	Perennial deciduous shrub, May-Oct.	None - No suitable habitat and no records from area.	4, 5
fragrant-snow bush mallow *Malacothamnus jonesii* var. *niveu*	CRPR 4.3	Endemic to Monterey, Santa Barbara, and SLO counties.	Chaparral, and cismontane woodland; 225-1,075 m.	Perennial deciduous shrub, May-Jun.	None - This species is not known to occur in the HCP area and occurs at elevations higher than those within the HCP.	4

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
dunedelion *Malacothrix incana*	CRPR 4.3	Endemic to central and southern coast and offshore islands.	Coastal dunes or coastal scrub; 2-35 m.	Perennial herb, Apr.-Oct.	Present - Observed during CDPR surveys at the Pavilion Hill vegetation island, 7.5 revegetation area, in North Oso Flaco, and near Oso Flaco Creek.	3, 4, 5
Palmer's monardella *Malacothrix palmeri*	CRPR 1B.2	Endemic to Monterey and SLO counties.	Chaparral, and cismontane woodland in serpentine; 200-800 m.	Perennial rhizomatous herb, Jun.-Aug.	None - This species is not known to occur in the HCP area and occurs at elevations higher than those within the HCP.	4
Southern curly-leaved monardella *Monardella sinuata* ssp. *sinuata*	CRPR 1B.2	Endemic to Santa Barbara, and SLO counties.	Chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils; 0-300 m.	Annual herb, Apr.-Sep.	Low - Determined to have a low potential of occurrence due to the limited suitable habitat in the HCP area. Nearby CNDDB occurrences from 1930s.	2, 3, 4, 5
crisp monardella *Monardella undulata* ssp. *crispa*	CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Coastal dunes or coastal scrub; 10-120 m.	Perennial rhizomatous herb, Apr.-Aug.	Present - 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 according to 2022 vegetation mapping and CNDDB records.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
San Luis Obispo monardella *Monardella undulata* ssp. *undulata*	CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Coastal dunes or coastal scrub (sandy); 10-200 m.	Perennial rhizomatous herb, May-Sep.	Present - 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 in CDPR surveys; also known from nearby CNDDB records.	2, 3, 4, 5
California spineflower *Mucronea californica*	CRPR 4.2	Endemic to central and southern California.	Chaparral, cismontane woodland, coastal dunes, coastal scrub or valley and foothill grassland on sandy soils; 0-1,400 m.	Annual herb, Mar.-Aug.	Present - Observed during CDPR surveys in the Pismo Dunes Natural Preserve, Phillips 66 Leasehold, and South Oso Flaco.	3, 4, 5
aparejo grass *Muhlenbergia utilis*	CRPR 2B.2	Found in Fresno, Inyo, Kern, Monterey, San Bernardino, SLO, Santa Barbara, and Ventura counties.	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, and marshes and swamps sometimes in alkaline or serpentine soils; 25 -2,325 m.	Perennial rhizomatous herb, May-Oct.	Moderate - Not observed within the HCP area but suitable habitat present.	5
Gambel's watercress *Nasturtium gambelii*	FE, ST, CRPR 1B.1	Central and southern coast.	Marshes and swamps (freshwater or brackish); 5-330m.	Perennial rhizomatous herb, Apr.-Oct.	Present - Known from the HCP area at Oso Flaco Lake, though occurrence was confirmed hybridized in 2020.	1, 2, 3, 5
spreading navarretia *Navarretia fossalis*	FT, CRPR 1B.1	Southern California	Chenopod scrub, marshes and swamps, playas, vernal pools.	Annual herb, Apr.-Jun.	None - No suitable habitat and no records from area.	1, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
coastal woolly-heads *Nemacaulis denudata* var. *denudata*	CRPR 1B.2	Central and southern coast.	Coastal dunes; 0-100 m.	Annual herb, Apr.-Sep.	Present - Observed as recently as 2022. Documented along the Oso Flaco Lake service road and the within the BBQ Flat and Eucalyptus Tree vegetated islands.	2, 3, 4, 5
Robbins' nemacladus *Nemacladus secundiflorus* var. *robbinsii*	CRPR 1B.2	Endemic to Los Angeles, Monterey, San Benito, SLO, Santa Barbara, and Ventura counties.	Chaparral, and valley and foothill grassland; 350 - 1,700 m.	Annual herb, Apr.-Jun.	Low - Not observed within the HCP area. Suitable upland chaparral and grassland absent.	5
adobe yampeh *Perideridia pringlei*	CRPR 4.3	Endemic to central and southern California.	Chaparral, cismontane woodland, coastal scrub, and pinyon and juniper woodland on serpentinite, often clay soils; 300-1,800 m.	Perennial herb, Apr.-Jun.	None - No suitable habitat and no records from area.	3, 4
south coast branching phacelia *Phacelia ramosissima* var. *austrolitoralis*	CRPR 3.2	Known from Los Angeles, Orange, and San Diego counties.	Chaparral, coastal dunes, coastal scrub, and marshes and swamps (coastal salt) in sandy, sometimes rocky soils; 5-300 m.	Perennial herb, Mar.-Aug.	Present - Observed as recently as 2022. Common throughout HCP area in dune scrub habitat.	4
Monterey pine *Pinus radiata*	CRPR 1B.1	Found in Monterey, Santa Cruz, SLO, and San Mateo counties.	Closed-cone coniferous forest, and cismontane woodland; 25-185 m.	Perennial evergreen tree.	Present - Has been observed in previous surveys at scattered locations in the HCP area; however, not native to HCP area.	4

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Torrey pine *Pinus torreyana* ssp. *torreyana*	CRPR 1B.2	Found in Santa Barbara, and San Diego counties.	Closed-cone coniferous forest, and chaparral on sandstone; 30-160 m.	Perennial evergreen tree.	Present - Has been observed in previous surveys at Pismo State Beach and in the Pismo Dunes Preserve; however, not native to HCP area.	4
Hickman's popcorn flower *Plagiobothrys chorisianus* var. *hickmanii*	CRPR 4.2	Endemic to San Mateo, Santa Clara, Santa Cruz, San Benito, Monterey and SLO counties.	Closed-cone coniferous forest, chaparral, coastal scrub, marshes and swamps or vernal pools; 15-390 m.	Annual herb, Apr.-Jun.	Present - Observed during CDPR surveys at four vegetation islands within the HCP area, in the Phillips 66 Leasehold, and near Maidenform.	4, 5
sand almond *Prunus fasciculata* var. *punctata*	CRPR 4.3	Endemic to SLO and Santa Barbara counties.	Chaparral (maritime), cismontane woodland, coastal dunes or coastal scrub on sandy soils; 15-200 m.	Perennial deciduous shrub, Mar.-Apr.	Present - Observed as recently as 2022. Common within stabilized backdune areas of Phillips 66 Leasehold.	3, 4, 5
Hoffman's sanicle *Sanicula hoffmannii*	CRPR 4.3	Endemic to Monterey, SLO, San Mateo, Santa Barbara, and Santa Cruz counties.	Broadleafed upland forest, coastal bluff scrub, chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest in clay (often) or serpentine (often); 30-300 m.	Perennial herb, Mar.-May	None - No suitable habitat and no records from area.	3, 4
black-flowered figwort *Scrophularia atrata*	CRPR 1B.2	Endemic to SLO and Santa Barbara counties.	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub or riparian scrub; 10-500 m.	Perennial herb, Mar.-Jul.	Low - Suitable habitat occurs; however mostly occurs on much older sand dunes than are present in the area.	2, 3, 4, 5
chaparral ragwort *Senecio aphanactis*	CRPR 1B.2	Found along the coast and coast ranges from the Bay Area to the Mexican border.	Chaparral, cismontane woodland, and coastal scrub sometimes in alkaline soils; 15-800 m.	Annual herb, Jan.-Apr.	Low - Limited suitable habitat and no nearby records.	2, 3, 4, 5

Table C2. Special-status Plant Species with the Potential to Occur in the Oceano Dunes HCP Area

Species	Listing Status[1]	Range in California	Habitat	Life Form/ Blooming Period	Potential to Occur	Sources
Blochman's ragwort *Senecio blochmaniae*	CRPR 4.2	Endemic to SLO and Santa Barbara counties.	Coastal dunes; 0-100 m.	Perennial herb, May-Oct.	Present - Locally common and widespread throughout HCP area.	3, 4, 5
San Bernardino aster *Symphyotrichum defoliatum*	CRPR 1B.2	Endemic to southwestern California.	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps or valley and foothill grassland (vernally mesic) near ditches, streams or springs; 2-2,040 m.	Perennial rhizomatous herb, Jul.-Nov.	Low - Determined to have a low chance of occurrence due to the limited suitable habitat in the HCP area.	2, 3, 4, 5

[1] Listing Status Key:
FE – Federal Endangered
FT – Federal Threatened
SE – State Endangered
ST – State Threatened
SC – State Candidate
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).

Sources

1. USFWS. 2025. IPaC Species List. List generated March 4, 2025. https://ipac.ecosphere.fws.gov/

2. California Natural Diversity Database (CNDDB). 2025. Oceano and Pismo Beach USGS 7.5 Minute Quadrangles. California Department of Fish and Game, Biogeographic Data Branch. Last updated March 2025.

3. California Native Plant Society Inventory of Rare and Endangered Plants, 2025. Oceano and Pismo Beach Quads. Available at: https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants, accessed March 12, 2025.

4. California Department of Parks and Recreation, 2024. Oceano Dunes Habitat Conservation Plan: Appendix A. Listed and Other Special-status Species not Included in the HCP.

5. California Department of Parks and Recreation. 2024. 2024 Oceano Dunes State Vehicular Recreation Area Wildlife Habitat Protection Plan. Prepared by California Department of Parks and Recreation Off-highway Motor Vehicle Division, Oceano Dunes District.

Special-Status Plant Species Descriptions

Special-status plant species that are potentially impacted by the existing HCP covered activities, proposed new activities, and/or potential future activities are described below.

Red Sand Verbena, CRPR 4.2

Red sand verbena (*Abronia maritima*) is a perennial herb in the four o'clock family (Nyctaginaceae) that blooms from February through November. It is a California endemic found in Los Angeles, Orange, San Diego, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura counties. It occurs on coastal dunes from 0 to 100 meters. It is nearly extirpated in southern California (CNPS 2025). Red sand verbena was observed in the HCP area near Strand Way, as well as in the western portion of the Pismo Dunes Natural Preserve. It has also been observed on Pavilion Hill, Tabletop, and Worm Valley vegetation islands; in north Oso Flaco; and near Oso Flaco Creek (MIG|TRA 2015). It is locally common in the foredunes throughout the Oceano Dunes SVRA (CDPR 2024).

Marsh Sandwort, FE, SE, CRPR 1B.1

Marsh sandwort (*Arenaria paludicola*) is a perennial herb in the pink family (Caryophyllaceae). It has rooting, trailing stems and small white, inconspicuous flowers that bloom from May through August. It can also reproduce asexually by producing adventitious roots on the trailing stems that come into contact with suitable conditions.

Historically, this species occurred in swamps, marshes, and other wet areas in widely disjunct localities in California and Washington between sea level and 1,000 feet (304.8 m.). In California, historical populations are known from five areas: San Francisco Bay (Crissy Field, San Francisco County), Santa Cruz (Scotts Valley, Santa Cruz County), Guadalupe-Nipomo Dunes (Black Lake, Black Lake Canyon, Jack Lake, Oso Flaco Lake, Twin Lake, and Pismo Beach, San Luis Obispo County), Los Angeles (Los Angeles basin, Los Angeles County), and along the Santa Ana River (vicinity of San Bernardino, San Bernardino County) (USFWS 2016). Marsh sandwort typically occurred on saturated, acidic bog soils that were predominantly sandy with a high organic content (USFWS 1998). Currently, its primary habitat consists of boggy areas in freshwater marshes and swamps below 560 feet (170 m.) in elevation (USFWS 2008). Marsh sandwort is found with dense mats of rushes, cattails (*Typha* sp.), and bur-reed (*Sparganium* spp.) (USFWS 2008).

When it was federally listed in 1993, marsh sandwort was only known from one extant population near the San Luis Obispo County coast at Black Lake Canyon on the Nipomo Mesa Dune complex. Naturally occurring plants were last seen at Black Lake Canyon in 1994 after a steady decline since 1985 (USFWS 1998). However, marsh sandwort was rediscovered in Black Lake Canyon approximately 1.5 miles east of Black Lake in 2020. The species had since been reintroduced to Black Lake Canyon on three different occasions, but all attempts were unsuccessful, with the last observation in 1999. Marsh sandwort has also been reintroduced to the Sweet Springs Audubon Nature Preserve in Los Osos in San Luis Obispo County in 2003, outplanted in the Guadalupe-Nipomo National Wildlife Refuge in October 2008 and 2013, and outplanted the 2021 in the Los Osos Creek watershed near the town of Los Osos. Additional reintroduction efforts have taken place in Santa Cruz and San Francisco counties.

Since marsh sandwort was federally listed, a natural population was rediscovered in the HCP area at Oso Flaco Lake in 1998 (Chestnut 1998, USFWS 1998, USFWS 2008). Chestnut (1998) reported marsh sandwort from two locations, separated by approximately 330 feet, in a marshy area near the northeast corner of Oso Flaco Lake. The larger of the two locations contained at least 65 plants, and the smaller location contained at least 20 plants. The plants were growing in an area dominated by broad-fruited bur-reed (*Sparganium eurycarpum*) and appeared to be associated with Cusick's sedge (*Carex cusickii*), a large, tussock-forming species of localized occurrence in this area. This site now comprises the only known extant, wild population. This population has been in decline since 1998, however, with only 25 clumps reported in 2005. A decline in habitat quantity and quality was recorded at this site in late 2006 (CNDDB 2025). The vegetation at this location was observed to be thicker, denser, and more overgrown, consistent with biostimulation. Development and agricultural operations upstream from the lake have indirectly caused a decline in the quality of the marsh and swamp habitat through increases in nutrients (USFWS 2008). A survey by CDPR contractors for marsh sandwort was attempted in 2013. Surveyors could not confirm presence of the plant due to problems with accessibility but did determine that habitat, including the sedge mat microhabitat used by this species, is still present in locations where marsh sandwort was observed in the past. The area was surveyed in June and September 2018 (Chestnut, pers. comm. 2019). Surveyors found marsh sandwort growing in a narrow band just outside the overhead willow canopy and shoreward from the tule marsh that dominates that portion of the lake. They noted that in this narrow band, Cusick's sedge formed floating clumps that provided a substrate for the marsh sandwort to grow over. Although the specific number of individuals or population acreage was not determined, it appeared the tule coverage had expanded compared to previous visits, and the habitat band for the sandwort was in turn shrinking (Chestnut, pers. comm. 2019). The CNDDB presumes only the populations at Oso Flaco Lake and Sweet Springs Audubon Nature Preserve in Los Osos to be extant. All other previously reported populations (i.e., 13 since 1899) are considered extirpated or presumed extirpated. In 2020 and 2022, CDPR staff surveyed this occurrence and confirmed continued presence of marsh sandwort at both locations. Two small patches with approximately 5-25 individuals in each location were observed in July 2020, and 2 additional plants were found in October 2020 in the eastern location. In August 2022, both locations had approximately the same number of live plants compared to 2020, covering a similar footprint. However, due to the dense cover of the supporting *Carex* structure, it could not be determined how many plants were present. Marsh sandwort stems visible above the *Carex* mat substrate were estimated to be 100+ stems in the western location and 50+ stems in the eastern patch.

Nuttall's Milkvetch, CRPR 4.2

Nuttall's milkvetch (*Astragalus nuttallii* var. *nuttallii*) is a perennial herb in the pea family (Fabaceae) that blooms from January through November. It is endemic to California and is found in Marin, Monterey, San Luis Obispo, San Mateo, Santa Barbara, and possibly San Francisco counties. It occurs in coastal bluff scrub and coastal dunes from 3 to 120 meters. It is possibly threatened by foot traffic (CNPS 2025). Nuttall's milkvetch has been observed nearby the HCP area in the Pismo Dunes Natural Preserve; at Boyscout Camp, Worm Valley, Tabletop, and Eucalyptus Tree vegetation islands; in the south end of the Phillips 66 Leasehold; in North Oso Flaco; in the northern part of Maidenform; near Oso Flaco Creek; and in the southwest portion of South Oso Flaco (MIG|TRA 2015). It is locally common in stabilized low lying dune slack areas throughout the HCP area (CDPR 2024).

Monterey Coast Paintbrush, CRPR 4.3

Monterey Coast paintbrush (*Castilleja latifolia*) is a perennial herb (hemiparasitic) in the broomrape family (Orobanchaceae) that blooms from February through September. It is endemic to the California central coast and is found in Mendocino, Monterey, San Mateo, Santa Cruz, and Sonoma counties. It occurs in the closed cone coniferous forest, cismontane woodland (openings), coastal dunes, and coastal scrub in sandy soils from 0 to 185 meters. It is threatened by development and grazing (CNPS 2025). Monterey Coast paintbrush has been documented throughout the HCP area (CDPR 2024). It has been documented near the interpretive trail and Carpenter Creek, in the Pismo Dunes Natural Preserve, throughout the Phillips 66 Leasehold, at six of the vegetation islands, at Maidenform, near Oso Flaco Creek, and in the eastern part of South Oso Flaco (MIG|TRA 2015). It primarily occurs within the silver dune lupine-mock heather scrub vegetation alliance.

Coastal Goosefoot, CRPR 1B.2

Coastal goosefoot (*Chenopodium littoreum*) is an annual herb in the goosefoot family (Chenopodiaceae) that blooms from April through August. It is endemic to California and found in Los Angeles, Santa Barbara, and San Luis Obispo counties. It occurs on sand dunes from 10 to 30 meters. It is possibly threatened by recreational activities, vehicles, and non-native plants (CNPS 2025). Coastal goosefoot has been observed as recently as 2022 and has been seen from incidental sightings throughout the southern part of the Phillips 66 Leasehold and near the southern boundary of Oceano Dunes SVRA at Surprise Lake (CDPR 2024), and is known from CNDDB records at Oso Flaco Lake and Jack Lake (CNDDB 2025). It is common in vegetation islands and stabilized backdunes within the HCP area.

Douglas's Spineflower, CRPR 4.3

Douglas's spineflower (*Chorizanthe douglasii*) is an annual herb in the buckwheat family (Polygonaceae) that blooms from April through July. It is endemic to California and found in Monterey, San Benito, San Luis Obispo, and Santa Clara counties. It occurs in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland sometimes on sandy or gravelly soils from 55 to 1,600 meters. It is possibly threatened by non-native plants. (CNPS 2025). Douglas's spineflower has been previously documented at the Pavilion Hill vegetation island, in the Phillips 66 Leasehold, and by Surprise Lake (HCP Appendix A).

Surf Thistle, ST, CRPR 1B.2

Surf thistle (*Cirsium rhothophilum*) is a low-growing, short-lived perennial in the sunflower family (Asteraceae) with white flowers in dense heads. Flowering occurs between April and June. It is characterized by large rosettes of spiny, white-woolly, deeply lobed and undulating leaves. The deep roots and white-woolly herbage are adaptations to the physical stresses of the dune habitat, such as high light intensity, sand movement and abrasion, and limited water. Surf thistle occurs only in the narrow strip of coastal habitat between stabilized dunes and windblown beach between 2.7 to 61 meters in elevation (CDFG 2005).

This species of surf thistle is endemic to the dunes of the central California coast, from the Nipomo Dunes of southern San Luis Obispo County to Point Conception in Santa Barbara County, including populations within Pismo State Beach and Oceano Dunes SVRA. It grows in

coastal foredunes on the slopes of transverse ridges in areas of active sand accumulation. At the southern extreme of its range, it is found in sand at the bases or tops of cliffs (CDFG 2005).

Statewide, the CNDDB has 21 recorded occurrences of surf thistle, with 1 considered extirpated, 1 considered possibly extirpated, and 19 presumed extant. Most observations have been documented on the Vanderburg Space Force Base. Within the HCP area, surf thistle was observed near Oso Flaco Creek and in the foredunes of the South Oso Flaco area during vegetation mapping surveys conducted in 2012, as well as during rare plant surveys conducted annually since 2013. Although surf thistle was previously documented in the North Oso Flaco Exclosure area, it has not been observed in this area since 2003 (CDPR 2008) It was also observed as recently as 2022 within southern non-riding area foredunes (CDPR 2024).

La Graciosa Thistle, FE, ST, CRPR 1B.1

La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*) is a bushy biennial or short-lived perennial herb with large, smooth to slightly hairy leaves and clustered heads of white flowers. Flowering May–August, it is a spreading, mound-like or erect plant in the sunflower family (Asteraceae) that is well armored with spines on the leaves and flower heads. This species thrives on sandy soils and is pollinated by hummingbirds and insects (USFWS 2000, 2009e). The variety and abundance of pollinators indicate that this species is a generalist (i.e., utilizes a wide variety of pollinators).

This species is known from coastal San Luis Obispo and Santa Barbara counties from Pismo Beach south to Los Alamos. In general, La Graciosa thistle is associated with backdune and coastal wetlands on the margins of dune swales, dune lakes, marshes, estuaries, coastal meadows, seeps, springs, intermittent streams, creeks, and rivers (USFWS 2009a). The distribution of individual plants within populations is often an elongated pattern that is consistent with seed dispersal caused by the prevailing coastal winds (USFWS 2001b). It is often found growing in a mat of low-growing herbaceous plants, including rushes, sedge, salt grass, Bermuda grass (*Cynodon dactylon*), clover (*Trifolium wormskioldii*), yerba mansa (*Anemopsis californica*), silverweed (*Potentilla anserina*), and birdfoot trefoil (*Lotus corniculatus*) (USFWS 2001b).

The Santa Maria River mouth area supports the largest concentration of this species, which is most frequently found in grassy patches on the upper margins of marshes associated with the Santa Maria River estuary. Floods in 1998 greatly reduced the number of La Graciosa thistle plants in that area (USFWS 2000). Since federal listing, populations of this species have severely declined. CNDDB currently reports 8 occurrences to be presumed extant; however, at the time of listing, the USFWS believed there were 11 extant occurrences distributed among 7 populations (USFWS 2000). At that time, the extant occurrences ranged from the northern Callender Dune Lakes in the Callender Dunes to the seeps at Cañada de las Flores. At the time of the most recent USFWS 5-year review (USFWS 2019a), however, La Graciosa thistle was considered to have five extant occurrences, including southern Callender Dunes Lake, southern Guadalupe Dunes, and the Santa Maria River. One of these occurrences (i.e., southern Guadalupe Dunes) is within the HCP area and is extant (Figure 6-8). Surveys as recently as 2023 confirmed the presence of La Graciosa thistle in the South Oso Flaco area at Surprise Lake. La Graciosa thistle is also known to occur at Oso Flaco Lake, Jack Lake, the Callender Dunes, and the Dune Lake complex. CDPR conducted reconnaissance surveys in 2022 at LGTH3, LGTH4, LGTH 5 and LGTH6and

did not find any La Graciosa thistle individuals. Due to increased vegetative cover and decreased water levels at these locations in recent years, the habitat has become increasingly less suitable for La Graciosa thistle and these occurrences appear to be extirpated (Wagner, Ben, pers. comm. 2024). There is critical habitat present for La Graciosa thistle within the HCP area.

Paniculate Tarplant, CRPR 4.2

Paniculate tarplant (*Deinandra paniculata*) is an annual herb in the sunflower family (Asteraceae) that blooms form April through November. Within California it is found in Ker, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, San Mateo, Santa Barbara, and Ventura counties. It occurs in coastal scrub, valley and foothill grassland, and vernal pools in sandy (sometimes) vernally mesic (usually) areas from 25 to 940 meters. Some historical occurrences were extirpated by urbanization. It is threatened by development and potentially threatened by road widening (CNPS 2025). In the HCP area, paniculate tarplant has been documented in the southern part of the Phillips 66 Leasehold, most recently in 2022 (CDPR 2024). Suitable habitat for paniculate tarplant is limited in the HCP area.

Dune Larkspur, CRPR 1B.2

Dune larkspur (*Delphinium parryi* ssp. *blochmaniae*) is a perennial herb in the buttercup family (Ranunculaceae) that blooms from April through June. It is endemic to California and is found in San Luis Obispo, Santa Barbara, and Ventura counties. It occurs in maritime chaparral and on coastal dunes from sea level to 200 meters. It is threatened by development (CNPS 2025). Targeted surveys have been conducted for this species, and it has been found in the Phillips 66 Leasehold, Coreopsis Hill, and South Oso Flaco (HCP Appendix A).

Beach Spectaclepod, ST, CRPR 1B.1

Beach spectaclepod (*Dithyrea maritima*) is a low-growing, whitish-flowered perennial herb in the mustard family (Brassicaceae). The exposed stems are prostrate and less than 0.2 meter long, with the lower stems often under the sand (Al-Shehbaz 2017). The flowers are white to purple and can be seen from March to August (Al-Shehbaz 2017).

It is found in small transverse foredunes within approximately 160–1,000 feet (48.8-304.8 m.) from the surf (CDFG 2005). Beach spectaclepod is usually found in areas of fragile dunes where the sand is relatively unstable. Historically occurring as far south as Los Angeles County and possibly Baja California Norte, Mexico, this species currently occurs in the dunes of San Luis Obispo and Santa Barbara counties and on San Nicholas and San Miguel Islands (CDFG 2005). The CNDDB has recorded 28 occurrences of beach spectaclepod, with 3 considered extirpated and 25 presumed extant. At Oceano Dunes SVRA, beach spectaclepod was observed in the North Oso Flaco Exclosure area during vegetation mapping surveys conducted in 2012 and in the North and South Oso Flaco areas during rare plant surveys conducted since 2013. It was also observed as recently as 2022 within the North Oso Flaco and South Oso Flaco foredunes (CDPR 2024).

Blochman's Leafy Daisy, CRPR 1B.2

Blochman's leafy daisy (*Erigeron blochmaniae*) is a perennial rhizomatus herb in the sunflower family (Asteraceae) that blooms from June through August. It is endemic to California and is found in San Luis Obispo and Santa Barbara counties. It occurs on coastal dunes and in coastal scrub from 3 to 45 meters. It is threatened by development, non-native plants, and vehicles (CNPS 2025). Blochman's leafy daisy is locally common and widespread in the HCP area (CDPR 2024).

Suffrutescent Wallflower, CRPR 4.2

Suffrutescent wallflower (*Erysium suffrutescens*) is a perennial herb in the mustard family (Brassicaceae) that blooms from January through July. It is endemic to California and is found in Los Angeles, San Luis Obispo, Santa Barbara, and Ventura counties. It occurs in coastal bluff scrub, maritime chaparral, coastal dunes, and coastal scrub from sea level to 150 meters. It is threatened by coastal development, vehicles, and non-native plants (CNPS 2025). Suffrutescent wallflower is locally common and widespread in the HCP area (CDPR 2024).

Kellogg's Horkelia, CRPR 1B.1

Kellogg's horkelia (*Horkelia cuneata* var. *sericea*) is a perennial herb in the rose family (*Rosaceae*) that blooms from April through September. It is endemic to California and is found in Monterey, San Luis Obispo, San Mateo, Santa Barbara, and Santa Cruz counties. It occurs in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub, sometimes on sandy or gravelly openings from 10 to 200 meters. It is possibly threatened by coastal development (CNPS 2025). Kellogg's horkelia has been documented in the Pismo Dunes Natural Preserve in Pismo State Beach and in the Phillips 66 Leasehold during Oceano Dunes District surveys (CDPR, OHMVR Division 2012). It was also documented in the Phillips 66 Leasehold by the CNDDB with the most recent observation in 1998 (CNDDB 2025). Wedge leaved horkelia (*Horkelia cuneata* var. *cuneata*) is common and widespread within stabilized low-lying areas at Oceano Dunes SVRA and intermediates between varieties have been documented within the same area making it difficult to determine the extent of the Kellogg's horkelia at Oceano Dunes SVRA (CDPR 2024).

Southwestern Spiny Rush, CRPR 4.2

Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*) is a perennial rhizomatous herb in the rush family (Juncaceae) that blooms from March through June. Within California it is found in Los Angeles, Marin, Orange, Riverside, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties. It occurs in coastal dunes (mesic), coastal scrub, meadows and alkaline seeps, and in coastal salt marshes and swamps from 3 to 900 meters. It is threatened by urbanization and flood control projects (CNPS 2025). Southwestern spiny rush has been documented in the HCP area in Meadow Creek, Pismo Dunes Natural Preserve and in vegetation islands (HCP Appendix A).

Blushing Layia, CRPR 1B.2

Blushing layia (*Layia erubescens*) is an annual herb in the sunflower family (Asteraceae) that blooms from March through May. It is endemic to California and is found in San Luis Obispo, and Santa Barbara counties. It occurs in coastal dunes and coastal scrub in openings and in sandy soils from 10 to 245 meters. It is threatened by recreational activities (OHV), invasive species,

urbanization, and development (CNPS 2025). Blushing layia is only found within the southeastern sections of the Phillips 66 Leasehold where it occurs in high numbers (CDPR 2024).

Fuzzy Prickly Phlox, CRPR 4.2

Fuzzy prickly phlox (*Linanthus californicus* spp. *tomentosus*) is a perennial deciduous shrub in the phlox family (Polemoniaceae) that blooms from March through August. It is endemic to California and found only in San Luis Obispo County. It occurs on coastal dunes from 1 to 185 meters (CNPS 2025). This species has only been documented in the Pismo Dunes Natural Preserve, South Oso Flaco, the Phillips 66 Leasehold, and in the very southern portion of the HCP area (HCP Appendix A). Fuzzy prickly phlox is locally common in the Phillips 66 Leasehold and stabilized dunes south of Oso Flaco Lake (CDPR 2024).

Nipomo Mesa Lupine, FE, SE, CRPR 1B.1

Nipomo Mesa lupine (*Lupinus nipomensis*) is a low-growing, blue-flowered, annual herb in the pea family (Fabaceae). Flowers are presumably capable of self-pollination but may require insect visitation to maximize seed production. Seed germination and maximum plant size are apparently enhanced by activities of pocket gophers (Walters and Walters 1988), which also present a threat of herbivory (USFWS 2000, USFWS 2009b).

Nipomo Mesa lupine is restricted to dry sandy flats of stabilized coastal dunes that lie west of Nipomo Mesa in San Luis Obispo County (USFWS 2009b). Associated species include perennial species such as California croton (*Croton californicus*), mock heather, dune eriogonum (*Eriogonum parvifolium*), dune ragwort, and perennial veldt grass (a non-native, invasive species).

At the time of the USFWS 5-year review (USFWS 2019b), only one Nipomo Mesa lupine population, composed of numerous colonies, was known to be extant (HCP Map 23). This population is divided into 3 occurrences, including one extirpated occurrence. The two extant populations are known as occurrence 1 and occurrence 2. Individuals in occurrence 1 are scattered across a 2-mile stretch of backdune habitat west of State Route 1 and between approximately 1 mile south of Black Lake Canyon and Oso Flaco Lake in San Luis Obispo County. The second extant occurrence is located immediately north of occurrence 1 adjacent to Black Lake. USFWS considered all occurrences or colonies in the site to comprise a single population; it is also now recorded as one occurrence in CNDDB. USFWS estimates the total area of footprint of extant occurrences covers approximately 64 acres (USFWS 2019b). Currently, the species is restricted to nine geographically isolated populations that have a fluctuating total population ranging from 100 to 1,800 individuals in any given year. Much of the habitat for the species is privately owned, mostly by Philips 66, with smaller portions owned by other private landowners. A portion of the habitat also occurs within a California Department of Transportation right-of-way (USFWS 2009d) and in the HCP area within the Phillips 66 leasehold (HCP Map 23).[3] Though potentially suitable habitat extends onto CDPR-owned portions of Oceano Dunes SVRA, no known occurrences exist on CDPR-owned property.

[3] Road maintenance or other actions conducted by Phillips 66 within the leasehold are not covered activities under this HCP.

Dunedelion, CRPR 4.3

Dunedelion (*Malacothrix incana*) is a perennial herb in the sunflower family (Asteraceae) that blooms from April through October. It is endemic to California and found in San Luis Obispo, Santa Barbara, and Ventura counties. It occurs in coastal dunes and coastal scrub from 2 to 35 meters (CNPS 2025). In the HCP area, dunedelion has been observed at the Pavilion Hill vegetation island and the 7.5 Revegetation Area, in North Oso Flaco, and near Oso Flaco Creek (MIG|TRA 2015, CDPR 2024). This species is common in the foredunes of the Oceano Dunes SVRA (CDPR 2024).

Crisp Monardella, CRPR 1B.2

Crisp monardella (*Monardella undulata* ssp. *crispa*) is a perennial rhizomatus herb in the mint family (Lamiaceae) that blooms from April through August. It is endemic to California and found in San Luis Obispo and Santa Barbara counties. It occurs in coastal dunes and coastal scrub sandy scrub from 10 to 120 meters. It is threatened by vehicles (CNPS 2025). This species is common in the Nipomo Dunes complex and is often found in the more open sandy areas, especially around the margins of active dunes. Crisp monardella is locally common and widespread in the Oceano HCP area and is commonly observed in sparsely vegetated areas with active dunes and along the sandy margins of stabilized plant communities (CDPR 2024).

San Luis Obispo Monardella, CRPR 1B.2

San Luis Obispo monardella (*Monardella undulata* ssp. *undulata*) is a perennial rhizomatus herb in the mint family (Lamiaceae) that blooms from May through September. It is endemic to California and found in Santa Barbara and San Luis Obispo counties, and it occurs in coastal dunes and sandy coastal scrub from 10 to 200 meters. It is threatened by coastal development, vehicles, and potentially non-native plants (CNPS 2025). San Luis Obispo monardella is fairly widespread within the HCP area and occurs within the Phillips 66 leasehold near Jack Lake and within the stabilized back-dunes of the Southern Non-Riding Area (HCP Appendix A, (CDPR 2024). It has also been observed in the Pismo Dunes Natural Preserve and the southern backdunes of south Oso Flaco.

California Spineflower, CRPR 4.2

California spineflower (*Mucronea californica*) is an annual herb in the buckwheat family (Polygonaceae) that blooms from March through August. It is endemic to California and found in Los Angeles, San Diego, San Luis Obispo, and Santa Barbara counties. It occurs in chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland from sea level to 1400 meters. It is rare in southern California and many herbarium records old. It is threatened by aggregate mining, vehicles, flood control modification, urbanization, and water percolation projects (CNPS 2025). It is often found in scattered locations in areas with more open dune scrub vegetation and disturbed areas, such as dirt roads and paths that have been cut through dune scrub. It occurs with a variety of native and non-native species, including mock heather, European beachgrass, and ice plant. In the HCP area, California spineflower has been observed in the Pismo Dunes Natural Preserve, in the Phillips 66 Leasehold, and at South Oso Flaco (HCP Appendix A). California spineflower is locally common and widespread within low lying areas in the Oceano Dunes SVRA (CDPR 2024).

Gambel's Watercress, FE, SE, CRPR 1B.1

Gambel's watercress (*Nasturtium gambelii*) is an herbaceous perennial rhizomatous herb in the mustard family (Brassicaceae). This species characteristically roots from the stem, which bears scattered compound leaves and dense clusters of white flowers. Gambel's watercress is found in freshwater or brackish marsh habitats at the margins of lakes and along slow-flowing streams. It grows in or just above the water level and requires a permanent source of water. In San Luis Obispo and Santa Barbara counties, Gambel's watercress has been reported to grow in perennially swampy and other mesic areas with bulrush (*Scirpus* spp.), broad fruit bur-reed, cutleaf water-parsnip (*Berula erecta*), straggly gooseberry (*Ribes divaricatum* var. *pubiflorum*), western poison oak, willow (*Salix* spp.), and other riparian vegetation (USFWS 2016). Gambel's watercress generally blooms from April to October.

Historically, Gambel's watercress occurred in interior wetland areas of Orange, San Bernardino, and Los Angeles counties, as well as coastal wetland areas of San Luis Obispo and Santa Barbara counties. A population from Mexico is thought to be extirpated (CDPR, OHMVR Division 2009).

At the time of listing, there were three known extant populations of Gambel's watercress: Black Lake Canyon, and, within the HCP area, Oso Flaco Lake and Little Oso Flaco Lake (USFWS 1993). The Black Lake Canyon and Little Oso Flaco Lake populations are now considered to be "possibly extirpated" (USFWS 2009c, USFWS 2011, CDFW 2018), with some observers indicating individuals appeared to show introgression with *N. officinale* (white or common watercress). The Gambel's watercress occurrence at Oso Flaco Lake was observed in fall 2013 (Chestnut, J., pers. comm. 2013), and the Oso Flaco area was surveyed again in 2018. Within the Oso Flaco Lake area, surveyors found a very healthy population of Gambel's watercress on the farm drain on the agricultural property. The number of individuals or distribution acreage was not determined. The populations of Gambel's watercress previously observed along the Oso Flaco Lake Causeway were gone (Chestnut, pers. comm. 2019). Only one individual was observed, located on the northern bank west of the service road, with the majority of the plant submerged and only one stem above the waterline. This location was revisited in 2022 by CDPR, and 10 stems were observed above the waterline growing within a floating California bulrush stand, but the number of individuals could not be determined due to dense cover.

As of the last 5-Year Review there are currently two confirmed, extant occurrences, including Oso Flaco Lake and a stream tributary to San Antonio Creek on Vandenberg Space Force Base (VSFB) in Santa Barbara County (USFWS 2022).

Genetics studies in 2000, 2008, 2012, and 2020 were conducted to evaluate the genetic integrity of the extant Gambel's watercress population (USFWS 2022). The studies conducted in 2012 and 2020 found no evidence of hybridization between Gambel's and common watercress at VSFB but showed strong genetic evidence of hybridization with common watercress within all samples collected from Oso Flaco Lake (USFWS 2022).

The population in Black Lake Canyon in San Luis Obispo County has not been seen since 1994 (CNDDB 2025), and the occurrence north of Black Lake Canyon is also considered extirpated. Pure Gambel's watercress is known from two wild populations that were discovered in 1998 and 2016 (Rutherford, C., pers. comm 2016) on VSFB in Santa Barbara County and from one population that was introduced in 2008 within the Guadalupe-Nipomo Dunes National Wildlife

Refuge, where a combination of 600 marsh sandwort and Gambel's watercress plants were planted at eight sites. However, the plants have not fully established at the Refuge, and the USFWS does not consider it to be a viable population (USFWS 2011). An unknown watercress species (*Nasturtium* sp.) was observed in the HCP area near Oso Flaco Creek during vegetation mapping surveys conducted in 2012. The HCP treats any watercress found within the HCP area as Gambel's watercress barring contrary identification by a qualified biologist/Natural Resource staff.

Coast Woolly-heads, CRPR 1B.2

Coast woolly-heads (*Nemacaulis denudate* var. *denudata*) is an annual herb in the buckwheat family (Polygonaceae) that blooms from April through September. Within California, it is found in Los Angeles, Orange, San Diego, and San Luis Obispo counties. It occurs in coastal dunes from 0 to 100 meters. It is threatened by foot traffic, trampling, and non-native plants (CNPS 2025). This species has been observed as recently as 2022 in the Oso Flaco Lake area and the Eucalyptus Tree vegetation islands (HCP Appendix A). Coast woolly-heads have been documented from incidental sightings within the dunes north of Oso Flaco Lake (CDPR 2024).

South Coast Branching Phacelia, CRPR 3.2

South Coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*) is a perennial herb in the waterleaf family (Hydrophyllaceae) that blooms from March through August. Within California, it is found in Los Angeles, Orange, and San Diego counties. It occurs in chaparral, coastal dunes, coastal scrub, and marshes and swamps (coastal salt) in rocky (sometimes) or sandy soils from 5 to 300 meters. It is threatened by development and possibly threatened by non-native plants (CNPS 2025). It has been observed as recently as 2022 and is common throughout the HCP area in dune scrub habitat (CDPR 2024).

Hickman's Popcornflower, CRPR 4.2

Hickman's popcorn flower (*Plagiobothrys chorisianus* var. *hickmanii*) is an annual herb in the borage family (Boraginaceae) that blooms from April through June. It is endemic to California and found in Monterey, Santa Clara, Santa Cruz, and possibly San Mateo counties. It occurs in closed-cone coniferous forest, chaparral, coastal scrub, marshes and swamps, and vernal pools from 15 to 390 meters (CNPS 2025). Hickman's popcorn flower has been documented in four vegetation islands within the HCP area, in the Phillips 66 Leasehold, and near Maidenform (HCP Appendix A, and CDPR 2024).

Sand Almond, CRPR 4.3

Sand almond (*Prunus fasciculata* var. *punctata*) is a perennial deciduous shrub in the rose family (Rosaceae) that blooms from March through April. It is endemic to California and found in Santa Barbara and San Luis Obispo counties. It occurs in maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils from 15 to 200 meters (CNPS 2025). In the HCP area, sand almond has only been observed in the Phillips 66 Leasehold (HCP Appendix A). Sand almond is locally common within stabilized dunes of the Phillips 66 Leasehold (CDPR 2024).

Blochman's Ragwort, CRPR 4.2

Blochman's ragwort (*Senecio blochmaniae*) is a perennial herb in the sunflower family (Asteraceae) that blooms from May through October. It is endemic to California and found in

Santa Barbara and San Luis Obispo counties. It occurs in coastal dunes and in sandy areas on coastal floodplains from 0 to 100 meters. It is threatened by non-native plants, development, and vehicles (CNPS 2025). Blochman's ragwort is locally common and widespread in the HCP area (CDPR 2024).

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Habitat Conservation Plan EIR

Appendix D: Biological Effects of Existing Covered Activities

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Oceano Dunes District HCP EIR
Appendix D: Biological Effects of Existing Covered Activities

Special-Status Animal Species

Existing covered activities (CA) are ongoing visitor use or other park operation activities occurring within the HCP area. No changes to these activities are proposed by the HCP; therefore, the proposed project would have no new effect generated by these activities. Effects on special-status animal species from these activities are part of existing baseline environmental conditions in the HCP area. Detailed descriptions of the environmental setting, biological resources, and risk of effects on HCP covered species and non-covered species/species groups are described in HCP Chapters 3 and 4 and EIR section 6.2.

Existing covered activities are classified into five distinct categories of Park Operations including Park Visitor Activities, Natural Resources Management Program, Park Maintenance, Visitor Services, and Other Activities (EIR section 2.4.2.1). Many existing covered activities have known effects on biological resources within the park units. Effects of these existing covered activities on special-status species fall into the following four effect categories: mortality or injury, disturbance, habitat effects, and beneficial effects, as defined below. The effect of the covered activity may result in direct or indirect effects on a species or resource.

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

The risk of existing covered activities affecting special-status animal and plant species or other natural resources (e.g., wildlife movement and nursery sites) are classified into four levels including no effect, low, moderate, and high, as defined below. Risk is defined as both the

likelihood and magnitude of effect. As a result, risk is weighing both the frequency and severity of the effect. Therefore, even though an effect may be expected to occur, it may not result in a high or moderate risk if the effect is considered infrequent or is not severe. The level of effect that may result from an existing covered activity is defined as follows:

- **No Effect** – The covered activity has not caused mortality, injury, or reproductive failure of a special-status species in the past and does not have the potential to do so within the permit term of the HCP. The covered activity has not caused disturbance or effects in the past and is unlikely to during the permit term. The covered activity would also have no permanent or temporary effects on special-status species habitat.
- **Low** – The covered activity is unlikely to cause mortality, injury, or reproductive failure; however, the covered activity will likely result in a degree of disturbance or other effects that could disrupt the normal behavior patterns (e.g., breeding, feeding, sheltering) of one or more individuals of a special-status species. Permanent loss or reduction in quality of 1 or more acre of tertiary (rarely used) habitat or temporary disturbance to habitat of one or more special-status species also falls into this effect level.
- **Moderate** – The covered activity has in the past, or may possibly in the HCP permit term, cause direct mortality, injury, or reproductive failure of one or more individuals of a special-status species in some years (not more than once every 2 years); and/or a degree of disturbance or effect that could cause mortality, injury, or reproductive failure of one or more individuals of a special-status species in some years. Permanent loss or reduction in quality of 1 or more acre of secondary (dispersal, foraging, aestivation, roosting, etc.) habitat of one or more special-status species also falls into this effect level.
- **High** – The covered activity has in the past or is highly likely in the HCP permit term to cause direct mortality, injury, or reproductive failure of one or more individuals of a special-status species in most years (more than once every 2 years); and/or a degree of disturbance or effect that is highly likely to result in mortality, injury, or reproductive failure of one or more individuals of a special-status species in most years. Permanent loss or reduction in quality of 1 acre or more of primary breeding habitat of one or more special-status species also falls into this effect level.

Covered activities having no risk of effect on a special-status species as shown in Tables D-1 and D-2 are not discussed below.

Table D-1. Risk of Effects on Special-Status Animal Species from Existing Activities

Covered Activity		HCP Covered Animals						HCP Non-Covered Animals						
		Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater goby	California (Coast) Horned Lizard	Northern California Legless Lizard	Burrowing Owl	Nesting Birds	Wintering/ Migratory Birds	Roosting Birds	American Badger
Park Visitor Activities	CA-1 Motorized Recreation	H[1]	H	L	L	L	L	L	L	L	M	M	M	L
	CA-2 Camping	M	M	L	L	L	N	L	L	L	L	L	M	L
	CA-3 Pedestrian Activities	M	M	L	L	L	L	L	L	L	M	L	L	L
	CA-4 Bicycling and Golfing	L	L	N	N	N	N	N	N	L	L	L	N	N
	CA-5 Fishing	M	M	M	N	N	N	N	N	N	M	L	N	N
	CA-6 Dog walking	L	L	L	L	L	L	L	L	L	L	L	L	L
	CA-7 Equestrian Recreation	L	L	L	L	L	L	L	L	L	L	L	N	L
	CA-8 Boating/ Surfing	L	L	N	N	N	N	N	N	N	L	L	N	N
	CA-9 Aerial/Wind-Driven Activities	L	L	N	N	N	N	N	N	L	M	L	N	N
	CA-10 Holidays	M	M	L	L	L	L	L	L	L	M	M	M	L
	CA-11 Special Events	M	M	L	L	L	L	L	L	L	M	M	M	L

Table D-1. Risk of Effects on Special-Status Animal Species from Existing Activities

Covered Activity		HCP Covered Animals						HCP Non-Covered Animals						
		Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater goby	California (Coast) Horned Lizard	Northern California Legless Lizard	Burrowing Owl	Nesting Birds	Wintering/ Migratory Birds	Roosting Birds	American Badger
Natural Resources Management	CA-12a and CA-12b SNPL and CLTE Management	H, B	H, B	N	N	L	N	N	N	N	H	L	N	N
	CA-13 TG and Salmonid Surveys	L	L	L, B	L, B	L, B	H, B	N	N	N	L	L	N	N
	CA-14 Herpetological Monitoring and Management	L	L	L	L, B	L	L	N	N	N	L	L	N	N
	CA-15 Listed Plant Management (monitoring)	L	L	L, B	L, B	L, B	L, B	L, B	L, B	L	L	L	N	L
	CA-16 Habitat Restoration Program	L	L	L	L	L	N	L, B	L, B	L	L, B	L, B	N	L, B
	CA-17 Invasive Plant and Animal Control	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	N	L, B
	CA-18 WHPP Implementation	L, B	L, B	N, B	N, B	N, B	N, B	M, B	M, B	L	L, B	L, B	N, B	L, B
	CA-19 Water Quality Monitoring Projects	L	L	L, B	L, B	L, B	L, B	N	N	N	L	L	N	N
Park Maintenance	CA-20 Campground Maintenance	N	N	L	L	L	N	N	N	N	L	L	N	N
	CA-21 General Facilities Maintenance	L	L	L	L	L	N	L	L	L	L	L	N	L
	CA-22 Trash Control	L, B	L, B	N, B	N, B	N, B	N, B	L, B	L, B	L, B	L, B	L, B	N	L
	CA-23 Wind Fencing	L	L	N	N	N	N	L	L	L	L	L	N	N
	CA-24 Sand Ramp/Other Vehicle Access	L	L	N	N	N	N	N	N	L	L	L	N	N
	CA-25 Street Sweeping	N	N	N	N	N	N	N	N	L	L	L	N	N

Table D-1. Risk of Effects on Special-Status Animal Species from Existing Activities

Covered Activity		HCP Covered Animals						HCP Non-Covered Animals						
		Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater goby	California (Coast) Horned Lizard	Northern California Legless Lizard	Burrowing Owl	Nesting Birds	Wintering/ Migratory Birds	Roosting Birds	American Badger
Park Maintenance	CA-26 Routine Riparian Maintenance	N	L	L	L	L	L	L	L	N	L	L	L	N
	CA-27 Perimeter and Vegetation Island Fencing	L	L	N	N	L	N	L	L	L	L	L	N	L
	CA-28 Cable Fence Maintenance	L	N	N	N	N	N	L	L	N	L	L	N	N
	CA-29 Heavy Equipment Response	L	L	N	N	L	L	L	L	L	L	L	N	L
	CA-30 Minor Grading	L	L	N	N	L	L	L	L	L	L	L	N	L
	CA-31 Boardwalk/Other Pedestrian Maintenance	L	L	L	L	L	N	L	L	L	L	L	N	N
Visitor Services	CA-32 Ranger, Lifeguard, Park Aide Patrols	L	L	N	N	N	L	L	L	L	L	L	N	L
	CA-33 Emergency Response	M	L	L	L	L	L	L	L	L	L	L	N	L
	CA-34 Access by Non-CDPR Vehicles	M	M	L	L	L	L	L	L	L	L	L	N	L
	CA-35 ASI Courses (ATV and RUV)	N	N	N	N	N	N	L	L	L	L	L	N	N
	CA-36 Beach Concessions	M	L	N	N	N	N	L	L	L	L	L	N	N
	CA-37 PB Golf Course Operations	N	N	L	L	L	N	N	N	N	L	L	N	N
	CA-39 Natural History/Interpretation	N	L	N	N	N	N	N	N	N	L	L	N	N

Table D-1. Risk of Effects on Special-Status Animal Species from Existing Activities

Covered Activity		HCP Covered Animals						HCP Non-Covered Animals						
		Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater goby	California (Coast) Horned Lizard	Northern California Legless Lizard	Burrowing Owl	Nesting Birds	Wintering/ Migratory Birds	Roosting Birds	American Badger
Other Activities	CA-40 Vehicle Crossing of Creeks	L	L	L	L	L	M	N	N	N	L	L	N	N
	CA-44 Dust Control Activities	M	M	L, B	L, B	L, B	N	L, B	L, B	M	L, B	L	N	L, B
	CA-45 Cultural Resources Management	L	L	L	L	L	N	L	L	L	L	L	N	L
	CA-46 CDPR Ag Land Management	N	N	L	L	L	N	N	N	N	L	L	N	N
	CA-47 Maintenance of a Bioreactor on Ag Lands	N	N	N	L	N	N	N	N	N	N	L	N	N
	CA-51 Use of Pesticides	L, B	L, B	M, B	M, B	M, B	L, B	L, B	L, B	L	L	L	L	L, B

Table D-1. Risk of Effects on Special-Status Animal Species from Existing Activities

Covered Activity	HCP Covered Animals						HCP Non-Covered Animals						
	Western Snowy Plover	California Least Tern	Southwestern Pond Turtle	California Red-legged Frog	Western Spadefoot	Tidewater goby	California (Coast) Horned Lizard	Northern California Legless Lizard	Burrowing Owl	Nesting Birds	Wintering/ Migratory Birds	Roosting Birds	American Badger

[1] **High (H).** The covered activity has in the past or is highly likely in the HCP permit term to cause direct mortality, injury, or reproductive failure of one or more individuals of a special-status species in most years (more than once every 2 years); and/or a degree of disturbance or other effects that is highly likely to result in mortality, injury, or reproductive failure of one or more individuals of a special-status species in most years. Permanent loss or reduction in quality of 1 acre or more of primary breeding habitat of one or more special-status species also falls into this effect level. High effects are highlighted in **red**.

Moderate (M). The covered activity has in the past, or may possibly in the HCP permit term, cause direct mortality, injury, or reproductive failure of one or more individuals of a special-status species in some years (not more than once every 2 years); and/or a degree of disturbance or other effects that could cause mortality, injury, or reproductive failure of one or more individuals of a special-status species in some years. Permanent loss or reduction in quality of 1 or more acre of secondary (dispersal, foraging, aestivation, roosting, etc.) habitat of one or more special-status species also falls into this effect level. Moderate effects are highlighted in **orange**.

Low (L). The covered activity is unlikely to cause mortality, injury, or reproductive failure; however, the covered activity will likely result in a degree of disturbance or other effects that could disrupt the normal behavior patterns (e.g., breeding, feeding, sheltering) of one or more individuals of a special-status species. Permanent loss or reduction in quality of 1 or more acre of tertiary (rarely used) habitat or temporary disturbance to habitat of one or more special-status species also falls into this effect level.

No Effect (N). The covered activity has not caused mortality, injury, or reproductive failure of a special-status species in the past and does not have the potential to do so within the permit term of the HCP. The covered activity has not caused disturbance or other effects in the past and is unlikely to during the permit term. The covered activity would also have no permanent or temporary effects on special-status species habitat.

Beneficial (B). The covered activity has a primary purpose of aiding in the protection and recovery of the target special-status species, including protective fencing, surveys and monitoring, habitat enhancement, predator or invasive species control, etc.; the covered activity has a purpose of restoring and protecting natural resources generally but not necessarily a specific special-status species, which have a secondary beneficial effect on a special-status species; or the covered activity does not have a purpose related to natural resources protection, but nevertheless has some degree of beneficial effect on a special-status species. When a covered activity has overall beneficial effects that outweigh any adverse effects, the effect is highlighted in **green**.

Table D-2. Risk of Effects on Special-Status Plant Species from Existing Covered Activities

Covered Activity		Red sand verbena	**Marsh sandwort**	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas's spineflower	**Surf thistle**	**La Graciosa thistle**	Paniculate tarplant	Dune larkspur	**Beach spectaclepod**	Blochman's leafy daisy	Suffrutescent wallflower	Kellogg's horkelia	Southwestern spiny rush	Blushing lavia	Fuzzy prickly phlox	**Nipomo Mesa lupine**	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	**Gambel's watercress**	Coastal woolly-heads	South coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's groundsel
Park Visitor Activity	CA-1 Motorized Recreation	M	N	M	L	L	L	M	L	N	N	M	M	M	N	L	N	N	N	M	M	N	M	N	L	L	L	N	M
	CA-2 Camping	L	N	L	N	N	N	L	N	N	N	L	L	L	N	N	N	N	N	L	L	N	L	N	N	N	N	N	L
	CA-3 Pedestrian Activities	L	N	L	L	L	L	L	L	N	N	L	L	L	L	L	N	L	N	L	L	L	L	N	L	L	L	N	L
	CA-4 Bicycling and Golfing	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-5 Fishing	N	L	N	N	N	N	N	L	N	N	N	N	N	N	L	N	N	N	N	N	N	N	L	N	N	L	N	N
	CA-6 Dog Walking	L	N	L	N	N	N	N	N	N	N	N	L	L	N	L	N	N	N	L	L	N	L	N	N	N	N	N	L
	CA-7 Equestrian Recreation	L	N	L	L	N	N	L	L	N	N	L	L	L	L	L	N	L	N	L	L	L	L	N	N	N	N	N	L
	CA-8 Boating/ Surfing	N	L	N	N	N	N	N	L	N	N	N	N	N	N	L	N	N	N	N	N	N	N	L	N	N	L	N	N
	CA-9 Aerial/Wind-Driven Activities	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-10 Holidays	M	N	M	L	L	L	M	L	N	N	M	M	M	L	L	N	L	N	M	M	L	M	N	L	L	L	N	M
	CA-11 Special Events	M	N	M	L	L	L	M	L	N	N	M	M	M	L	L	N	L	N	M	M	L	M	N	L	L	L	N	M

Table D-2. Risk of Effects on Special-Status Plant Species from Existing Covered Activities

Covered Activity		Red sand verbena	**Marsh sandwort**	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas's spineflower	**Surf thistle**	**La Graciosa thistle**	Paniculate tarplant	Dune larkspur	**Beach spectaclepod**	Blochman's leafy daisy	Suffrutescent wallflower	Kellogg's horkelia	Southwestern spiny rush	Blushing lavia	Fuzzy prickly phlox	**Nipomo Mesa lupine**	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	**Gambel's watercress**	Coastal woolly-heads	South coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's groundsel
Natural Resources Management	CA-12a and CA-12b SNPL and CLTE Management	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-13 TG and Salmonid Surveys	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-14 Herpetological Surveys and Management	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-15 Listed Plant Management	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B
	CA-16 Habitat Restoration Program	L, B	N	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	N	L, B	L, B	L, B	L, B	L, B
	CA-17 Invasive Plant and Animal Control	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B	L, B
	CA-18 WHPP	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B	N, B
	CA-19 Water Quality Monitoring Projects	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table D-2. Risk of Effects on Special-Status Plant Species from Existing Covered Activities

	Covered Activity	Red sand verbena	**Marsh sandwort**	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas's spineflower	**Surf thistle**	**La Graciosa thistle**	Paniculate tarplant	Dune larkspur	**Beach spectaclepod**	Blochman's leafy daisy	Suffrutescent wallflower	Kellogg's horkelia	Southwestern spiny rush	Blushing lavia	Fuzzy prickly phlox	**Nipomo Mesa lupine**	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	**Gambel's watercress**	Coastal woolly-heads	South coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's groundsel
Park Maintenance	CA-20 Campground Maintenance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-21 General Facilities Maintenance	L	N	L	N	N	N	N	N	N	N	N	L	L	N	N	N	N	N	L	L	N	L	N	N	N	N	N	L
	CA-22 Trash Control	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-23 Wind Fencing	L	N	L	N	N	N	N	N	N	N	N	L	L	N	N	N	N	N	L	L	N	L	N	N	N	N	N	L
	CA-24 Sand Ramp/Other Vehicle Access	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-25 Street Sweeping	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-26 Routine Riparian Maintenance	N	M	N	L	N	N	N	L	N	N	L	N	N	N	L	N	N	N	L	N	N	N	M	N	N	N	N	N
	CA-27 Perimeter and Veg Island Fencing	L	N	L	L	L	L	N	N	N	N	N	L	L	N	L	N	N	N	L	L	N	L	N	L	L	L	N	L
	CA-28 Cable Fence Maintenance	L	N	L	N	N	N	N	N	N	N	N	L	L	N	N	N	N	N	L	L	N	L	N	N	N	N	N	L
	CA-29 Heavy Equipment Response	L	N	L	L	L	L	L	L	N	L	L	L	L	L	L	N	L	N	L	L	L	L	N	L	L	L	N	L

Table D-2. Risk of Effects on Special-Status Plant Species from Existing Covered Activities

Covered Activity		Red sand verbena	**Marsh sandwort**	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas's spineflower	**Surf thistle**	**La Graciosa thistle**	Paniculate tarplant	Dune larkspur	**Beach spectaclepod**	Blochman's leafy daisy	Suffrutescent wallflower	Kellogg's horkelia	Southwestern spiny rush	Blushing lavia	Fuzzy prickly phlox	**Nipomo Mesa lupine**	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	**Gambel's watercress**	Coastal woolly-heads	South coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's groundsel
	CA-30 Minor Grading	L	N	L	N	N	N	N	N	N	N	N	L	L	N	N	N	N	N	L	L	N	L	N	N	N	N	N	L
	CA-31 Boardwalk/ Other Pedestrian Maintenance	L	N	L	L	L	L	L	L	N	L	L	L	L	L	L	N	L	N	L	L	L	L	N	L	L	L	N	L
Visitor Services	CA-32 Ranger, Lifeguard, Park Aide Patrols	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-33 Emergency Response	L	L	L	L	L	L	L	L	N	L	L	L	L	L	L	N	L	N	L	L	L	L	L	L	L	L	N	L
	CA-34 Access by Non-CDPR Vehicles	L	L	L	L	L	L	L	L	N	L	L	L	L	L	L	N	L	N	L	L	L	L	L	L	L	L	N	L
	CA-35 ASI Courses (ATV and RUV)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-36 Beach Concessions	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-37 PB Golf Course Operations	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-39 Natural History/ Interpretation	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table D-2. Risk of Effects on Special-Status Plant Species from Existing Covered Activities

Covered Activity		Red sand verbena	**Marsh sandwort**	Nuttall's milkvetch	Monterey Coast paintbrush	Coastal goosefoot	Douglas's spineflower	**Surf thistle**	**La Graciosa thistle**	Paniculate tarplant	Dune larkspur	**Beach spectaclepod**	Blochman's leafy daisy	Suffrutescent wallflower	Kellogg's horkelia	Southwestern spiny rush	Blushing lavia	Fuzzy prickly phlox	**Nipomo Mesa lupine**	Dunedelion	Crisp monardella	San Luis Obispo monardella	California spineflower	**Gambel's watercress**	Coastal woolly-heads	South coast branching phacelia	Hickman's popcorn flower	Sand almond	Blochman's groundsel
Other Activities	CA-40 Vehicle Crossing of Creeks	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-44 Dust Control Activities	L, B	N	L, B	L, B	L, B	L, B	L, B	L, B	N	L, B	L, B	L, B	L, B	L, B	L, B	N	L, B	N	L, B	L, B	L, B	L, B	N	L, B	L, B	L, B	N	L, B
	CA-45 Cultural Resource Management	L	N	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	N	L	L	L	L	L
	CA-46 CDPR Ag Land Management	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-47 Bioreactor Maintenance on Ag Land	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	CA-51 Use of Pesticides	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B	M, B

[1] **Moderate (M).** The covered activity has in the past, or may possibly in the HCP permit term, cause direct mortality, injury, or reproductive failure of one or more individuals of a special-status species in some years (not more than once every 2 years); and/or a degree of disturbance or other effects that could cause mortality, injury, or reproductive failure of one or more individuals of a special-status species in some years. Permanent loss or reduction in quality of 1 or more acre of secondary (unoccupied or high recreational use, etc.) habitat of one or more special-status species also falls into this effect level. Moderate effects are highlighted in **orange**.

Low (L). The covered activity is unlikely to cause mortality, injury, or reproductive failure; however, the covered activity will likely result in a degree of disturbance (e.g., spread of invasive species, soil erosion, changes in species composition, etc.) of one or more individuals of a special-status species. Permanent loss or reduction in quality of 1 or more acre of tertiary (rarely occupied) habitat or temporary disturbance to habitat of one or more special-status species also falls into this effect level.

No Effect (N). The covered activity has not caused mortality, injury, or reproductive failure of a special-status species in the past and does not have the potential to do so within the permit term of the HCP. The covered activity has not caused disturbance or other effects in the past and is unlikely to during the permit term. The covered activity would also have no permanent or temporary effects on special-status species habitat.

Beneficial (B). The covered activity has a primary purpose of aiding in the protection and recovery of the target special-status species, including protective fencing, surveys and monitoring, habitat enhancement, invasive species control, etc.; the covered activity has a purpose of restoring and protecting natural resources generally but not necessarily a specific special-status species, which have a secondary beneficial effect on a special-status species; or the covered activity does not have a purpose related to natural resources protection, but nevertheless has some degree of beneficial effect on a special-status species. When a covered activity has overall beneficial effects that outweigh any adverse effects, the effect is highlighted in **green**.

Western Snowy Plover (SNPL)

SNPL nest and winter within the HCP area. SNPL that occupy the HCP area are part of the Pacific Coast population and may comprise resident breeders that do not migrate, migratory breeders that leave during the winter months (October to February) and return at the onset of the breeding season, and wintering birds that migrate from interior or other coastal breeding sites, arriving in November and remaining until February (Warriner, et al. 1986). SNPL regularly breed in the HCP area along the open-sand beach from Post 6 south from March to mid-September (CDPR 2023). Approximately 300 acres of active riding and camping area south of Post 6 are closed during the breeding season for SNPL and CLTE (CDPR 2023).[1] SNPL have also infrequently been observed breeding adjacent to Arroyo Grande Creek. SNPL winters in the HCP area from October to February. A total of 4,513 acres within the HCP area are mapped as suitable habitat for SNPL, although 3,565 acres are considered tertiary habitat where SNPL are unlikely to nest, roost, or forage.

Covered activities occurring outside of SNPL primary and secondary habitat areas (HCP Maps 10 and 23) have no risk of affecting SNPL and are dismissed from further discussion. Existing covered activities with no effects on SNPL include Golfing (CA-4), Campground Maintenance (CA-20), Street Sweeping (CA-25), Routine Riparian Maintenance (CA-26), ASI Courses (CA-35), Pismo State Beach Golf Course Operations (CA-37), Natural History/Interpretation (CA-39), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Motorized Recreation (CA-1), which has a high risk of affecting SNPL, and other existing covered activities with low to moderate risk of affecting SNPL are described below. These effects are all part of the baseline environmental conditions. SNPL are expected to benefit from the existing covered activities in the HCP's conservation program directly by benefitting individuals or improving and protecting critical nesting habitat. Existing covered activities that may benefit SNPL include SNPL and CLTE Management (CA-12a and 12b), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Trash Control (CA-22), and Use of Pesticides (CA-51) which all enhance or protect SNPL habitat by reducing disturbance, improving habitat by planting native plants, and ultimately improve the likelihood for breeding success and population growth within the HCP area.

See Table D-1 for the risk level of existing covered activities affecting SNPL, as well as existing covered activities with beneficial effects on SNPL.

Park Visitor Activities

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

[1] Note that in 2021 CDPR administratively closed this area year-round temporarily in response to now-concluded CDP permitting and litigation. The HCP anticipates the area will return to seasonal operation, consistent with actual past use, if such operation is consistent with the requirements of other programs.

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 are also at risk of being crushed by a vehicle, although SNPL AMMs 1-31 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 17-19 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 1-31 to reduce this effect, wintering SNPL are still found dead or injured near tire tracks each year. This indicates that wintering SNPL are still vulnerable to vehicle strike despite the implementation of AMMs. As a result, the risk of mortality or injury from motorized recreation is high. 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. 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. CDPR implements SNPL AMMs 1-30, 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. With implementation of AMMs the risk of disturbance is low. 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 is thought to artificially increase the number of individual predators in areas being used by SNPL and thus indirectly increase predation on SNPL. CDPR implements SNPL AMMs 32-42, which includes requiring all visitors to deposit all trash in dumpsters/receptacles and 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, adults, and juveniles. Therefore, the risk of predation from increased trash associated with camping 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 and camping 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 during 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 and camping in the non-breeding season when the seasonal exclosure has been removed, alters dune vegetation and topography necessary for SNPL to breed in the coming breeding season. Specifically, motorized recreation and camping reduces vegetation, organic surface materials (e.g., driftwood), and micro-topography required for SNPL breeding and foraging. CDPR implements SNPL AMMs

43-46 to restore habitat that has been effected 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 SNPL breeding, foraging, and roosting. Other primary and secondary habitat for SNPL continues to be used for motorized recreation and remain unavailable or of reduced quality for SNPL. As a result, the risk of habitat effected by motorized recreation is moderate. This trend is expected to continue in the future.

Pedestrian Activity (CA-3). Effects on SNPL from pedestrian activity are described in HCP section 4.3.1.1.3. 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). Pedestrians are not permitted within the seasonal exclosure, which is fenced with predator fence or symbolic fence, and therefore pedestrians do not effect 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 1-3, 5-8, 10-22, 25-30, and 47-51 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 prevent this from happening. As a result, this risk of mortality or injury from pedestrian activity is low. This trend is expected to continue in the future.

Pedestrians moving through habitat occupied by SNPL can disturb nesting, foraging, or roosting SNPL. SNPL frequently feed on terrestrial insects that typically are 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. Stationary activities, such as picnicking and sunbathing, can displace SNPL for prolonged 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. CDPR implements SNPL AMMs 1-3, 5-8, 10-22, 25-30, and 47-51 to reduce the risk of pedestrians causing significant disturbance; however, some disturbance still likely occurs in the HCP area. As a result, the risk of disturbance is low to moderate depending on the duration and frequency of the disturbance. This trend is expected to continue in the future.

SNPL chicks that enter an area open to pedestrians have been picked up by well-meaning visitors attempting to “rescue” a chick by picking it up and moving it to another location or bringing it to park staff. Specifically, this was most recently 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 include providing educational information regarding SNPL. These AMMs appear to have reduced this effect since it has not been documented since 2014, which may also reflect a low incidence of unmonitored chicks moving into areas open to pedestrians. As a result, the risk of disturbance is low. 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 to reduce The effects on SNPL. Therefore, the risk of predation from increased trash associated with pedestrian activities is moderate. This trend is expected to continue in the future.

Fishing (CA-5). Effects on SNPL from fishing activity are described in HCP section 4.3.1.1.5. Fishing effects on SNPL are similar to effects from pedestrians (CA-3). Effects are more limited to the shoreline areas where foraging occurs rather than to beach nesting areas.

People fishing generally occupy the shoreline for longer periods than pedestrians passing through. As a result, SNPL also appear to avoid foraging near fishing activity. CDPR implements all AMMs listed above for pedestrians and SNPL AMM 52 to reduce effects on SNPL from fishing activities. As a result, the risk of disturbance from fishing is low. This trend is expected to continue in the future.

Discarded fishing line or hooks directly discarded on the beach or washed up by the tides can entangle or pierce SNPL adults, juveniles, and chicks. Increased predation on SNPL could result from visitor trash or discarded fishing bait as described above for Motorized Recreation (CA-1) and Camping (CA-2). CDPR implements SNPL AMM 53 to reduce The effects on SNPL. Despite implementation of AMMs including trash control and exclosures, the risk of mortality/injury or disturbance from fishing activities is moderate. This trend is expected to continue in the future.

Bicycling and Golfing (CA-4), Dog Walking (CA-6), Equestrian (CA-7), Boating/Surfing (CA-8), and Aerial/Wind Driven Activities (CA-9). Effects on SNPL from these activities are described in HCP sections 4.3.1.1.4 and 4.3.1.1.6 through 4.3.1.1.9. Golfing does not affect SNPL since the golf course is not located within or near SNPL breeding, foraging, or roosting habitat. In accordance with Superintendent's Order 554-003-2024[2], 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 or domestic animals associated with these activities. CDPR implements SNPL AMMs 1-3, 5-8, 10-22, 25-30, and 47-51 to reduce the risk of this occurring, and there are no records of mortality/injury or disturbance to SNPL chicks or eggs due to these activities in the HCP area. Therefore, AMMs appear to prevent this from happening. As a result, the risk of mortality/injury or disturbance from these recreational activities is low. This trend is expected to continue in the future.

Dog walking, equestrian recreation, and boating/surfing activities have been observed disturbing SNPL during foraging or roosting activities outside the seasonal exclosure in the breeding 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. Most disturbances are short in duration and SNPL will move to other locations to forage and/or roost. In addition, CDPR implements AMMs 54-61 to reduce the disturbances associated with these activities. As a result, the risk of disturbance from these recreational activities is low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on SNPL from holidays and special events are described in HCP sections 4.3.1.1.10 and 4.3.1.1.11. The existing effects of holidays

[2] 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 1.5.7).

and special events is similar to those of Motorized Vehicles (CA-1), Camping (CA-2), and Pedestrian Activities (CA-3). Potential adverse effects on 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 OHVs allowed on the beach but increases the intensity of the potential effect. All AMMs associated with park visitor activities CA-1 through CA-3 to minimize the effect on SNPL would be implemented. As a result, disturbance to SNPL from holidays and special events is moderate.

Fireworks are prohibited in the HCP area; however, the City of Pismo has an annual July 4 firework display 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. 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, including adjacent to the seasonal exclosure. Illegal fireworks in these areas have been observed disturbing nesting, roosting, and/or foraging SNPL. Specifically, 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. CDPR implements AMMs addressing holidays (SNPL AMMs 25-28 and AMMs 62-63), including increasing staff near the Southern Exclosure to minimize illegal firework use. As a result, the risk of disturbance is low 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. 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 AMM 64 and 65). Specific special event AMMs are based on past experience and dependent on the event location, timing, and potential to effect covered species like SNPL. Currently, the risk of disturbance is low to moderate, depending on the location and type of special event. This trend is expected to continue in the future.

UAS may be used in the future for video production within the HCP area and are not considered part of the baseline effect from existing activities. UAS will not be allowed near nesting areas during the breeding season. Therefore, UAS are not expected to affect nesting SNPL. UAS could disturb SNPL foraging and/or roosting in the HCP area during the non-breeding season. All UAS operators will follow the current CDPR policies regarding UAS use, and specific AMMs for UAS use will be included in special event permits (AMMs 66 and 67). As a result, effects of UAS operations to foraging and/or roosting SNPL are expected to be low. This trend is expected to continue in the future.

Natural Resources Management

SNPL and CLTE Management (CA-12a and 12b). Effects on SNPL from these management activities are described in HCP section 4.3.1.2.1. Existing SNPL and CLTE management activities includes surveying, monitoring, banding, predator control, habitat enhancement, and erecting fencing and exclosures. Low adverse effects can result from monitors or their vehicles accidentally crushing nests, although this has not been documented within the HCP area to date.

As a result, the risk of mortality or injury from activities discussed above is low. This trend is expected to continue in the future.

Monitors have caused temporary disturbance to SNPL during fence installation/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 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 AMMs 72 and 73) to reduce the risk of a chick being flushed into the open riding area or the territory of another nest. As a result, the risk of mortality or injury associated with monitoring activities is low. However, some disturbance occurs during monitoring activities due to the nature of the activities. As a result, disturbance effects that increase stress or alter behavior are 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 has been placed on the western and northern Southern Exclosure fence since 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 (such as orange silt construction fencing) 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. Therefore, the seasonal exclosure fence will continue to be used despite the potential moderate risk for birds to strike the fence that may result in mortality or injury. Overall, the seasonal exclosure fence is an important protective measure that has increased SNPL reproductive success in the HCP area.

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 key onto the exclosure and prey on the attending adults. CDPR implements AMMs (SNPL AMMs 68-73 and AMMs 89 and 91) to minimize these effects. However, mortality of SNPL has occurred in the HCP area from predation at the single-nest exclosures (EIR Table 6-8). As a result, the risk of mortality or injury from the use of single-nest exclosures is moderate to high. This trend is expected to continue in the future.

Take of SNPL associated with banding occurs under an existing permit authorization from the USFWS. Take associated with banding is associated with the capture of the SNPL chicks and results disturbance effects, although injury or mortality can occur during banding. CDPR implements AMMs to minimize the risk of injuries or mortalities occurring during banding (SNPL AMMs 82 and 83) and this rarely, if ever occurs. As a result, no mortality or injury from banding is expected; however, banding may disturb individuals by increasing stress natural behaviors and is considered a moderate effect. 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. 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 (SNPL AMMs 75-81), such as training monitors on how to install cameras, not installing cameras when the wind speed is above 15 mph or strong enough to move sand or if it is raining, waiting to deploy cameras if a predator sighting recently occurred, and not installing cameras on nests that are readily visible to the public. As a result, the risk of effects from using cameras near SNPL nests are low. 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 (SNPL AMM 92) requires handling chicks and/or eggs to relocate them to an authorized wildlife facility.[3] 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 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 (Roche, Cuthbert and Arnold 2008, Neuman, et al. 2013). In the past, approximately 147 eggs and 38 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 mortality, injury, or disturbance effects and have increased SNPL reproductive success in the HCP area. Therefore, the overall existing effect of SNPL and CLTE management activities on SNPL is beneficial. This trend is expected to continue in the future.

Impacts of proposed new SNPL and CLTE Management activities on SNPL are addressed in EIR sections 6.3.2.1 and 6.4.1.1

Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), and Water Quality Monitoring (CA-19). Effects on SNPL from these natural resource management activities are described in HCP sections 4.3.1.2.1 through 4.3.2.3 and 4.3.1.5. 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

[3] 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) are included in EIR section 6.3.2.1.

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 are conducted 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 mortality or injury.

These activities have resulted disturbance to SNPL, including increased stress and alteration of natural behavior. 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 can 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. 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. CDPR staff implements AMMs, including, but not limited to, SNPL AMMs 93-101 to minimize effects on SNPL. As a result, the risk of disturbance from natural resource management activities discussed above is low, and invasive plant and animal control benefits SNPL. This trend is expected to continue in the future.

If vegetation for restoration purposes is planted in and grows too densely within the footprint of the Exclosures or other primary and/or secondary suitable SNPL nesting habitat, it can reduce SNPL breeding habitat in these areas.[4] To reduce this effect, vegetation associated with the habitat restoration program is not planted beyond existing vegetated islands. As a result, the risk of this effect is low. This trend is expected to continue in the future.

Vegetation that is planted in the vicinity of known SNPL breeding, roosting, and/or foraging habitat can affect breeding SNPL by providing habitat for predators to hide and stalk nesting, foraging, and/or roosting SNPL. To reduce this effect, CDPR implements a predator management program that has been successful at controlling predators in the HCP area and protecting breeding SNPL. The predator management program has likely increased reproductive success and benefited SNPL and is expected to alleviate any effects associated with any additional vegetation being planted near SNPL habitat. As a result, the risk of this effect is low. This trend is expected to continue in the future.

Invasive plants have been shown to prevent SNPL from nesting in otherwise suitable areas; therefore, removal of invasive plants (CA-17) ultimately improves native habitats and potentially increases available SNPL habitat in the HCP area. This effect on SNPL is beneficial. This trend is expected to continue in the future.

Impacts of proposed new natural resources management activities on SNPL are addressed in EIR sections 6.3.2.1 and 6.4.1.1.

[4] Installing plants at the start of the SNPL breeding season specifically to enhance breeding habitat is a separate action from habitat restoration.

WHPP Implementation (CA-18). Effects on SNPL from WHPP implementation are described in HCP section 4.3.1.2.4. 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. Mortality or injury of birds has not been documented to date with the implementation of AMMs.

These surveys can disturb nesting or brooding SNPL. 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 USFWS) conduct the surveys near the seasonal exclosure, to minimize the effect. However, some disturbance to nesting and foraging/roosting SNPL may occur. Therefore, disturbance effect from annual monitoring is low. However, the overall existing effect of the WHPP on SNPL is beneficial. This trend is expected to continue in the future.

Park Maintenance

General Facilities Maintenance (CA-21) and Heavy Equipment Response (CA-29). Effects on 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 in EIR section 6.3.2.1. Park maintenance vehicles or equipment may result in mortality or injury to SNPL adults, juveniles, or chicks. Park maintenance vehicles, equipment, or workers can also accidentally crush nests. However, this has not been documented in the HCP area. CDPR also implements SNPL AMMs 102-105 to reduce the risk of park maintenance vehicles or equipment striking a SNPL or crushing a nest and these AMMs appear to minimize the risk of mortality or injury from these activities. As a result, the risk of mortality or injury from general facilities maintenance or heavy equipment response is low. 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, illness, or even death. Such effects are generally short in duration and relatively infrequent. CDPR implements SNPL AMMs 102-105 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 can still occur. As a result, the risk of disturbance effects is low. This trend is expected to continue in the future.

The placement of restroom facilities within SNPL breeding habitat reduces the amount of habitat available to SNPL for breeding by precluding them from nesting within the footprint of the structures. However, restroom facilities are small (i.e., approximately 8 feet by 8 feet), and they are placed in areas where SNPL do not typically nest (i.e., outside the Exclosures). Therefore, this habitat effect is low. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal are addressed in EIR section 6.3.2.1.

Trash Control (CA-22). Effects on SNPL from trash control 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. Because most of the large trash dumpsters are located in the dunes approximately 2 miles from the 6 Exclosure, vehicle strike and disturbance of nesting SNPL is unlikely when visitors or maintenance staff access these dumpsters. However, some large trash dumpsters near Post 2 are located within SNPL primary habitat.

Vehicles driving to the trash bins 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 low. As a result, the risk of mortality or injury from trash control is low. This trend is expected to continue in the future.

Trash bins are not located in areas where trash control activities disturb incubating, brooding, foraging, or roosting SNPL. Implementation of SNPL AMMs 102-105 ensures the risk of disturbance effects on SNPL from trash control activities is low. This trend is expected to continue in the future.

Although infrequent, some garbage pick-up, including volunteer beach cleanup and cleanup of the beach after a storm, is required in the HCP area. These activities are conducted outside of the SNPL breeding season to the extent feasible. If activities occur during the breeding season (e.g., after a storm event), they are planned to avoid active SNPL nesting areas. When cleanups do occur, whether during the breeding or non-breeding season, they are typically completed on foot with handheld trash bags and can cause similar disturbance of roosting and/or foraging SNPL as general maintenance activities (see section above). To reduce any effects from volunteer cleanup, CDPR implements the ongoing SNPL and CLTE management program, which includes ensuring all staff that conduct beach cleanups will continue to be given a training on SNPL life history and conservation measures, and a SNPL monitor during the breeding season. Effects from beach cleanup are low with the implementation of the SNPL and CLTE management program AMMs.

Trash dumpsters can attract a large number of gulls that land and forage in the dumpsters if they are left uncovered, and uncovered trash bins within or near SNPL breeding habitat can artificially increase predatory species populations, including gulls, and thus increase depredation of SNPL. Increasing the number of trash bins on holidays and during special events to accommodate the increased number of visitors may also artificially increase the number of predators at these times and increase depredation of SNPL. To reduce these effects, CDPR now uses a covered dumpster design with openings on the side, which has been found to attract fewer gulls than the previous open design. CDPR also implements a predator management program to ensure depredation of SNPL is minimized. Reducing predator presence near the dumpsters reduces the risk of predation on SNPL. As a result, the risk of trash control increasing predation is low, and overall, controlling trash within the HCP area has a beneficial effect on SNPL. This trend is expected to continue in the future.

Wind Fencing (CA-23), Sand Ramp/Other Vehicle Access (CA-24), Perimeter and Vegetation Island Fence Installation, Maintenance, and Removal (CA-27), Minor grading (CA-30), and Boardwalk/Other Pedestrian Access Maintenance (CA-31). Effects on SNPL from these park maintenance activities are described in HCP sections 4.3.1.3.4, 4.3.1.3.5, 4.3.1.3.8, 4.3.1.3.11, and 4.3.1.3.12. Fencing, minor grading, and boardwalk/pedestrian access maintenance occur within the HCP area as needed but are typically conducted outside the nesting season. The activities are conducted by CDPR staff who are trained in avoidance and minimization protocols. Effects on nesting SNPL have not been observed from these activities, especially with the implementation of SNPL AMMs. In addition, these activities do not modify SNPL nesting habitat. As a result, the risk of mortality/injury or nesting habitat effects are low. This trend is expected to continue in the future.

These park 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, SNPL AMMs are applied, as appropriate, including AMM 112 and 113. As a result, this disturbance effect is low. This trend is expected to continue in the future.

Cable Fence Maintenance (CA-28). Effects on SNPL from cable fence maintenance are described in HCP section 4.3.1.3.9. Cable fence maintenance is implemented by CDPR staff who are trained in avoidance and minimization protocols, and the work is largely conducted after the active breeding period. In addition, maintenance does not modify SNPL nesting habitat. As a result, there is no risk of mortality or injury to breeding SNPL from cable fence maintenance activities. This trend is expected to continue in the future.

Cable fence maintenance 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, SNPL AMMs are applied, as appropriate, including delaying activities if SNPL are observed nearby. As a result, the disturbance effect is low. 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. As a result, the risk of habitat effects on SNPL foraging habitat is low. This trend is expected to continue in the future.

Effects of proposed cable fence replacement on SNPL are addressed in EIR section 6.4.1.1.

Visitor Services

Ranger, Lifeguard, Park Aide Patrols (CA-32). Effects on SNPL from ranger, lifeguard, park aide patrols are described in HCP section 4.3.1.4.1. Regular ranger and park aide patrols occur throughout the HCP areas open to the public to ensure that visitors obey 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. Effects from crossing creeks are described in more detail under CA-40 below.

Ranger, lifeguard, and park patrols are conducted 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 as happening since 2002 and given the increased AMMs, such as SNPL AMM 102 requiring staff training and SNPL AMM 103 requiring all CDPR staff to observe closures and speed limits, vehicle strike is not expected to occur under non-emergency conditions (see CA-33). As a result, the risk of mortality or injury from park patrols is low. 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 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. 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 (AMM 6) and requiring all CDPR staff to observe closures (AMM 103); therefore, the risk of disturbance effect from park patrols is low. This trend is expected to continue in the future.

Emergency Response (CA-33) and Access by non-CDPR vehicles (CA-34). Effects on SNPL from emergency response and access by non-CDPR vehicles are described in HCP sections 4.3.1.4.2 and section 4.3.1.4.3, respectively. Emergency medical and law enforcement responses by CDPR staff, which are important for maintaining human safety, can occur anywhere within the HCP area and are difficult to predict. Occasional but necessary high-speed travel by medical and law enforcement vehicles responding to an emergency sometimes occurs in areas without frequent vehicular traffic. In the past, vehicles driven by non-CDPR personnel, including law enforcement agencies, salvage personnel, and marine mammal rescue responders, may have caused unpredictable disturbances, often involving multiple vehicles and unrestricted access to the shoreline. However, the Oceano Dunes District has enacted policies requiring non-park personnel to notify park staff when access to park lands is necessary. Non-park personnel that are granted vehicular access are informed of any restricted areas or other special conditions before entering the HCP area. Except in cases of extreme emergencies, this practice has eliminated resource damage and reduced mortality, injury, and disturbance to SNPL.

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 could 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, the risk of emergency response and access by non-CDPR vehicles to result in mortality or injury 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 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, they may become separated from their brood, or they may 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 reduced foraging. However, helicopter activity in the HCP area is an infrequent event, especially in areas where SNPL typically nest. Therefore, the risk of disturbance effects on SNPL from Medevac operations is moderate. 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 may leave them vulnerable to predation and/or inclement weather. Disturbance can also separate broods, cause chicks to move into the open

riding area, and 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. Monitors also 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 (SNPL AMM 115). 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 effects that occurred. Due to event infrequency, short-term duration of disturbance, and use of biological monitors (as feasible), the effect of these covered activities is low. 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. AMM 116 is also implemented, which includes identifying locations of non-breeding flocks of SNPL using appropriate signage. As a result, the risk of disturbance effects is low. This trend is expected to continue in the future.

Beach Concessions (CA-36). Effects on SNPL from beach concessions are described in HCP section 4.3.1.4.5. Concession operated services occur throughout the open riding area away from the seasonal exclosure. The effects from concession services are similar to those from General Facilities Maintenance (low; CA-21) and Camping (moderate; CA-2). These services have not been observed affecting 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 disturb individual SNPL in this area by flushing them from their location and causing them to become energetically stressed. As a result, the disturbance effect from beach concessions activities is moderate. This trend is expected to continue in the future.

Vehicles driving to and from the concession services can strike SNPL. CDPR implements SNPL AMM 117, which requires all concessionaires to receive a training on SNPL, to reduce any effects on SNPL. However, although unlikely, SNPL may still be killed/injured by vehicles driving to and from the concession services. As a result, the mortality and injury effect is low. This trend is expected to continue in the future.

Other Activities

Vehicle Crossing of Creeks (CA-40). Effects on SNPL from vehicle crossing of creeks are described in HCP section 4.3.1.5.1. 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. In addition, although CDPR vehicles are trained in avoidance and minimization measures, vehicles crossing Oso Flaco and Pismo/Carpenter Creek could disturb foraging and roosting SNPL. The risk of disturbance effects resulting from creek crossings is low. 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 nesting SNPL. This is especially 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 also injure or kill a SNPL adult, juvenile, or chick foraging in the area; however, CDPR implements SNPL AMMs 4-23 to reduce this effect. As a result, the risk of mortality or injury from vehicles crossing Arroyo Grande Creek is low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). Effects on SNPL from dust control activities are described in HCP section 4.3.1.5.5. Many dust control projects have already been conducted in the HCP area, as described in HCP Section 2.2.5.5; maintenance of dust control measures is ongoing. Dust control activities conducted to-date have 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 in accordance with the Oceano Dunes SVRA Dust Control Program Mitigation Monitoring and Reporting Program (MMRP) (CDPR 2017). As a result, mortality/injury from dust control activities associated with the Dust Control Program EIR likely have not occurred and the effect is low. This trend is expected to continue in the future.

A 48-acre area located outside the seasonal exclosure just north of Post 6 and within primary habitat for SNPL was fenced, permanently closed to camping and vehicles, and planted in early 2020 to establish a new foredune. SNPL have established nests throughout the area each year starting with the 2020 breeding season. The 48-acre foredune is closed to pedestrians year-round currently, but open to CDPR staff needing to maintain the vegetated areas or to access the air quality equipment. The area will be opened to pedestrians during the non-breeding season once CDPR has determined that the vegetation is adequately established. Pedestrian or maintenance activities within the 48-acre foredune or other dust closure areas could result in a nest/chick being crushed/killed or injured because of the cryptic nature of SNPL nests and chicks. However, CDPR conducts surveys for SNPL prior to starting maintenance work and delays activity until SNPL are not at risk of disturbance (SNPL AMMs 104 and 105). If the foredune area is opened to pedestrians, any nests that are found will be protected by either closing the foredune plot to the public while the nests are active, or by providing a single-nest exclosure as determined by the experienced SNPL biologist if appropriate. As a result, the mortality and injury effects are low. This trend is expected to continue in the future.

Chicks that leave nests within these foredune area are vulnerable to injury or mortality as they move from the nest area to the shoreline where they may encounter vehicles. However, the shoreline adjacent to the 48-acre foredune area are closed to the public when SNPL nests and broods are present. In addition, CDPR implement SNPL AMMs, as appropriate, including SNPL AMMs 1-30 to reduce the risk of crushing/killing or injuring a nest/chick found outside the protected foredune area. As a result, these effects are low. This trend is expected to continue in the future.

Foraging and roosting wintering SNPL are frequently located in various areas of the park, and SNPL may roost or forage along the shoreline of the 48-acre foredune area. Fencing off the foredunes removes some shoreline area that can be utilized for both visitor driving and SNPL foraging. As a result, SNPL could be more vulnerable to vehicle strike due to the reduced area along the shoreline. To reduce this effect, CDPR will implement the SNPL and CLTE management program in these areas, 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 or protected wildlife signs near foraging and/or roosting flocks, and implementing public education methods (e.g., handing out brochures, posting signs). As a result, mortality and injury effects of dust control activities on wintering SNPL is low. This trend is expected to continue in the future.

The multi-strand metal fencing used for these foredune areas is similar to fences placed at other vegetation islands. Fences placed in otherwise open habitat can be hazardous to flying birds. SNPL nesting or foraging within these areas may be at risk of striking the foredune fencing. However, SNPL have not been documented striking other vegetation island fencing and, although they have been documented striking the seasonal exclosure fence and symbolic fence at Oso Flaco, such events have been rare and happened only a few times from 2002 to 2023. In addition, CDPR will implement SNPL AMMs, as necessary, to minimize the risk of fence strike. As a result, SNPL are very unlikely to strike the fencing, and this effect is low. This trend is expected to continue in the future.

Dust control vegetation that has been planted in the HCP area installed near known SNPL breeding, roosting, and/or foraging habitat may have affected breeding SNPL by providing habitat for predators to hide and stalk nesting, foraging, and/or roosting SNPL. In addition, protective perimeter fence posts 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. 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. By implementing AMMs the risk of predation on SNPL from existing dust control activities is low. This trend is expected to continue in the future.

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 for this species leads to less open (or wide), sparsely vegetated beaches and may have potentially increased 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 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 (HCP Table 3-2). However, some secondary habitat was lost along with 48 acres of primary habitat. As a result, habitat effects from dust control activities are moderate. This trend is expected to continue in the future.

Pedestrian or maintenance activities within the foredune or other dust closure areas could result in disturbance of nesting SNPL, SNPL could be deterred from incubating eggs or brooding chicks, and SNPL chicks could be flushed into the riding area. CDPR will continue to implement all applicable AMMs, including daily searches for nests and broods and closing the foredune, adjacent shoreline, and western portions of the alleyways when nests or broods are present. With implementation of AMMs the risk of disturbance is low. This trend is expected to continue in the future.

Impacts of proposed new dust control activities on SNPL are addressed in EIR section 6.4.1.1.

Cultural Resource Management (CA-45). Effects on SNPL from cultural resource management are described in HCP section 4.3.1.5.6.Cultural resource management activities are generally conducted outside areas where SNPL are typically observed or outside the SNPL breeding season and do not effect SNPL. In the unlikely event that cultural resource management activities must occur during the breeding season in areas where SNPL typically nest, these activities could disturb and/or displace SNPL from roosting or nesting. In addition, cultural

resource management activities could disturb and/or displace SNPL from roosting or foraging during the non-breeding season. To reduce any effects from cultural resource management activities, CDPR implements SNPL AMMs, as appropriate. Therefore, surveys are conducted in areas where SNPL could occur to ensure SNPL nests, adults, and chicks are not present within and near the cultural resource management area, and activities are delayed until an experienced monitor determines no effects will occur if a SNPL is observed during the surveys. Furthermore, environmental monitors accompany archaeologists in the field when cultural resources protection work must occur within or adjacent to areas where SNPL are known to nest to limit the potential for disturbance to nesting SNPL. Therefore, the risk of mortality/injury or disturbance effects from cultural resource management activities are low. This trend is expected to continue in the future.

Use of Pesticides (CA-51). Effects on SNPL from use of pesticides are described in HCP section 4.3.1.5.12. CDPR currently uses pesticides in the HCP area, as necessary, to control invasive species. The activities occur by CDPR staff who are trained in avoidance and minimization protocols. Aerial spraying occurs in the backdunes to control veldt grass in tertiary SNPL habitat; therefore, aerial spraying does not affect breeding or wintering SNPL. Other forms of pesticide use do not occur during the breeding season in areas where SNPL are known to nest. Although unlikely, if SNPL nest in new areas these activities can result in disturbance of nesting SNPL and SNPL can be deterred from incubating eggs or brooding chicks. Pesticide use does occur within SNPL nesting habitat outside the breeding season when wintering SNPL are present. In addition, SNPL may be affected by drift from herbicide sprayed outside, but nearby, known breeding areas. However, CDPR implements SNPL AMMs 120-126, which include delaying work if a SNPL is observed nearby, not spraying if wind speed is over 10 miles per hour, and ensuring all workers are trained to work in sensitive habitat, to reduce these effects in the event a SNPL nest occurs nearby. The resulting effect of pesticide use in the HCP area on SNPL is low and is ultimately beneficial by reducing the spread of invasive plant species into SNPL breeding and non-breeding habitat. This trend is expected to continue in the future.

SNPL Critical Habitat

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activity (CA-3), Holidays (CA-10), Special Events (CA-11), and Dust Control (CA-44). In the final rule designating SNPL critical habitat in the HCP area, the USFWS acknowledged that portions of Oceano Dunes SVRA have been degraded by recreation activities. However, the USFWS 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, most covered activities have been occurring in the HCP area for over 25 years, including at the time when the USFWS designated SNPL critical habitat. For example, at least some covered activities currently occur within and will 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 are open to motorized recreation and camping at least part of the year. It is anticipated approximately 300 acres temporarily closed to year-round recreation in response to now-concluded CDP permitting and litigation will return to non-breeding season recreation operations, consistent with actual past use, if such operation is consistent with the requirements of other programs.

Heavy recreational use in the HCP area may continue to reduce the quality of some designated SNPL critical habitat for nesting or wintering activities. Specifically, SNPL may continue to use areas that are heavily used by humans, but productivity may continue to be limited in these areas. Heavy recreational use in critical habitat was occurring within the HCP area at the time critical habitat was designated; therefore, critical habitat for SNPL has not been adversely changed by recreational activities. Additionally, the effect on critical habitat of closing and planting vegetation in the 48-acre foredune area to-date has not been fully determined. The closure has created, at least temporarily, additional area for SNPL breeding, but the implications of long-term closure as vegetation and topography develop are not yet known.

California Least Tern (CLTE)

CLTE nest but do not winter in the HCP area, arriving in early April to mid-May and fully departing by late August to early September. Approximately 300 acres of the open riding and camping area south of Post 6 are closed during the breeding season for SNPL and CLTE (CDPR 2023).[5] The majority of CLTE in the HCP area have nested within the Southern Exclosure since it was installed in 2003. CLTE use of the 6 and 7 Exclosures for nesting has increased, with the majority of the CLTE nests being within the 6 and 7 Exclosures since 2010. Adult and fledgling daytime roosting and loafing behavior in the HCP area has occurred primarily in the Southern Exclosure within 6 and 7 Exclosures or the protected adjacent shoreline. Additionally, adult CLTE establish a communal night roost in an area closed to recreation either in the 6 or 7 Exclosure or within adjacent buffer areas. A total of 4,513 acres within the HCP area are mapped as suitable habitat for CLTE, including 698 acres of primary habitat; 250 acres of secondary habitat; and 3,565 acres of tertiary habitat where CLTE are unlikely to nest, roost, or forage; and aquatic foraging habitat (Figure 6-2 and HCP Map 10).

Covered activities occurring outside of CLTE primary, secondary, and foraging habitat areas have no risk of affecting CLTE and are dismissed from further discussion. Covered activities with no effects on CLTE include Golfing (CA-4), Campground Maintenance (CA-20), Street Sweeping (CA-25), Cable Fence Maintenance (CA-28), ASI Courses (CA-35), Pismo State Beach Golf Course Operations (CA-37), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Motorized Recreation (CA-1), which has a high risk of effect on CLTE, and other existing covered activities with low to moderate risk of affecting CLTE are described below and are part of the baseline environmental conditions. CLTE are expected to benefit from the existing covered activities in the HCP's conservation program by benefitting individuals or improving and protecting suitable nesting habitat. Existing covered activities that may benefit CLTE include SNPL and CLTE Management (CA-12a and 12b), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Trash Control (CA-22), and Use of Pesticides (CA-51) which all enhance or protect CLTE habitat by reducing disturbance, improving habitat by planting native plants, and ultimately improve the likelihood for breeding success and population growth within the HCP area.

[5] Note that in 2021 CDPR administratively closed this area year-round temporarily in response to now-concluded CDP permitting and litigation. The HCP anticipates the area will return to seasonal operation, consistent with actual past use, if such operation is consistent with the requirements of other programs.

See Table D-1 for the risk level of existing covered activities affecting CLTE, as well as existing covered activities with beneficial effects on CLTE.

Park Visitor Activities

Motorized Recreation (CA-1) and Camping (CA-2). Effects on CLTE from motorized recreation and camping are described in HCP sections 4.4.1.1.1 and 4.4.1.1.2. Motorized recreation and camping occur on an ongoing basis in the HCP area in primary and secondary CLTE habitat from Grand Avenue to Post 6. Take of CLTE has been documented in the HCP area from motor vehicle recreation and is summarized in 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 affect incubating adults, eggs, and individuals within the night roost. If a CLTE does nest outside the exclosure, an unprotected nest can be crushed by a vehicle, although CLTE AMMs 1-24 reduce the risk of this occurring and this is thought to be an infrequent event. Chicks have been observed in the open riding area where they are at risk of being struck by a vehicle; however, CLTE AMMs 1-24 also 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, 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 can be struck by a vehicle, although CLTE AMM 17 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, the risk of mortality or injury from motorized recreation or camping activities is high. This trend is expected to continue in the future.

Disturbance from 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 1-24, 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, this disturbance effect is low. 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 25-34 to reduce The effects on CLTE. Therefore, the risk of predation from increased trash associated with motorized recreation or camping 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 intensity and frequency of the disturbance. Motorized 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 in 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, alters dune vegetation and topography necessary for CLTE to breed

in the coming breeding season. Specifically, motorized recreation reduces vegetation, organic surface materials (e.g., driftwood), and micro-topography required for CLTE breeding and foraging. Campers collecting driftwood or other naturally occurring materials can also reduce the quality of cover used by chicks and adults as shelter from inclement weather or predators. CDPR implements CLTE AMMs 35-37 to restore habitat that has been effected 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 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. As a result, this habitat effect is moderate. This trend is expected to continue in the future.

Pedestrian Activity (CA-3). Effects on CLTE from pedestrian activity are described in HCP section 4.4.1.1.3. 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). Pedestrians are not permitted within the Southern Exclosure, which is fenced with predator fence, and therefore pedestrians do not affect 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 1-3, 5-8, 10-24, and 38-40 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 mortality or injury from pedestrian activity is low. 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 affects 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 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 1-3, 5-12, 14-16, 21-23, and 39 (as appropriate) and these AMMs appear to be successful at reducing disturbance effects. As a result, the risk of disturbance from pedestrian activity on CLTE is low. 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 at 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 since they are unable to forage normally. CDPR implements CLTE AMMs 1 and 39 to reduce the risk of this occurring. By implementing AMMs, the risk of disturbance to CLTE in aquatic habitat from pedestrian activities is low. This trend is expected to continue in the future.

CLTE chicks that enter an area open to pedestrians have been picked up by well-meaning visitors attempting to "rescue" a chick by picking it up and moving it to another location or bringing it to park staff. Specifically, this was most recently 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 include providing educational information regarding CLTE. These AMMs appear to have reduced this effect since it has not been documented since 2010; it may also reflect a very low incidence of unmonitored fledglings moving into areas open to pedestrians. Therefore, the risk disturbance from unintended human intervention is low. 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 25-34 to reduce The effects on CLTE. Therefore, the risk of predation from increased trash caused by pedestrian activities is moderate. This trend is expected to continue in the future.

Fishing (CA-5). Effects on CLTE from fishing are described in HCP section 4.4.1.1.5. The effects of fishing on CLTE are similar to the discussion above regarding pedestrian effects; however, The effects are limited to the ocean shoreline and lakes (e.g., Oso Flaco Lake) where CLTE are more likely to be foraging and/or roosting.

Discarded fishing line or hooks can entangle or pierce CLTE adults, juveniles, and chicks. AMM 42 is implemented to encourage proper disposal of fishing gear and manually remove garbage and litter from beaches. Therefore, risk of this mortality or injury effect on CLTE is low. This trend is expected to continue in the future.

Almost all CLTE nest within the Southern Exclosure where fishing is not allowed; therefore, effects on nesting CLTE from fishing are rare (if any) since the shoreline is also closed to the public, including for fishing, in the Southern Exclosure area south through North Oso Flaco Exclosure. Visitors can fish along the shoreline in South Oso Flaco, but since CLTE have not been observed nesting in the South Oso Flaco area from 2005 to 2023, fishing in that area does not currently affect CLTE. If CLTE were to nest in South Oso Flaco, they could be affected if fishing activities remained near CLTE nests for extended periods of time. Fishing can disrupt incubation, thereby increasing the exposure of chicks and/or eggs to extreme temperatures or predation. This risk of fishing disturbing nesting CLTE is low. This trend is expected to continue in the future.

People fishing generally occupy habitat longer than pedestrians who are just passing through. As a result, foraging and/or roosting CLTE may avoid areas near fishing activities and are less at risk of disturbance. If fishing activities do remain near foraging and/or roosting CLTE for extended periods of time, they can disrupt foraging for long periods of time, thereby disrupting normal foraging behavior and potentially causing adults and/or chicks to become energetically stressed. To reduce effects on foraging CLTE, CDPR implements AMMs 39 and 41. 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. By implementing AMMs, the risk of disturbance from fishing activities to foraging/roosting CLTE is low. This trend is expected to continue in the future.

In addition, 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 25-34 and AMM 42 to reduce The effects. By implementing AMMs, the risk of

increased predation from fishing activities is moderate. This trend is expected to continue in the future.

Bicycling (CA-4), Dog Walking (CA-6), Equestrian (CA-7), Boating/Surfing (CA-8), and Aerial/Wind Driven Activities (CA-9). Effects on CLTE from these park visitor activities are described in HCP sections 4.4.1.1.4 and 4.4.1.1.6 through 4.4.1.1.9. Golfing does not affect CLTE since the golf course is not located within or near CLTE breeding, foraging, or roosting habitat. In accordance with Superintendent's Order 554-003-2024[6] and AMMs 48 and 49, 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 CLTE are known to nest; however, if, in the future, CLTE nest in new areas, the cryptic nature of CLTE nests and chicks makes it possible for an active CLTE nest or a chick that is outside the fenced area and not yet identified by monitors to be crushed/killed or injured by pedestrians or domestic animals associated with these activities. CDPR implements CLTE AMMs 1-3, 5-8, 10-24, 38-40, and 43-50 to reduce the risk of this occurring, and there are no records of mortality/injury or disturbance to CLTE chicks or eggs due to these activities in the HCP area. Therefore, AMMs appear to prevent this from happening. As a result, the risk of mortality/injury or disturbance from these recreational activities is low. This trend is expected to continue in the future.

Bicycling, dog walking, and equestrian recreation are not expected to affect foraging or roosting CLTE because CLTE forage over water and CLTE roosting areas are closed to recreation when CLTE are present. Surfing, small boat, and paddleboard launchings along the beach may have similar but less intense effects on roosting and/or foraging CLTE as pedestrians. Boaters on Oso Flaco Lake can disrupt foraging and/or roosting CLTE. However, boating on Oso Flaco Lake is uncommon. In addition, as part of the ongoing SNPL and CLTE management program, CDPR can restrict access to Oso Flaco Lake if monitors observe conflicts with foraging and/or roosting CLTE. As a result, the risk of disturbance from boating to CLTE is low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on CLTE from holidays and special events are described in HCP sections 4.4.1.1.10 and 4.4.1.1.11. The effects of holidays and special events on CLTE is similar to those of Motorized Vehicles (CA-1), Camping (CA-2), and Pedestrian Activity (CA-3). Potential effects on 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. CDPR implements AMMs specifically addressing holidays and special events (CLTE AMMs 51-56). As a result, the risk of mortality/injury or disturbance effects from holidays and special events on CLTE are low or moderate, depending on the amount and location of the disturbance. This trend is expected to continue in the future.

[6] 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 1.5.7).

Natural Resources Management

SNPL and CLTE Management (CA-12a and 12b). Effects on CLTE from SNPL and CLTE management are described in HCP section 4.4.1.2.1. 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, except there are no non-breeding season effects on CLTE since they are not present in the HCP area in the non-breeding season, and CLTE chick and egg salvage and rescue does not occur. Mortality or injury of CLTE has occurred in the past from striking the symbolic fence (EIR Table 6-7), and CLTE could strike the seasonal exclosure fence. The SNPL discussion above describes the plastic fencing used to minimize the risk of fence strike. Monitors may disturb CLTE during some activities, and CLTE chicks are banded, which results in capture of CLTE chicks. CLTE AMMs 57-78 are implemented to minimize injury, harm, and disturbance to CLTE associated with SNPL and CLTE management activities. The risk of mortality/injury or disturbance effects from these activities are moderate to high. However, based upon many years of implementation, the monitoring data presented in the HCP demonstrate these management activities have beneficial effects that exceed the risk level of incidental take and have increased CLTE reproductive success in the HCP area. Therefore, the overall existing effect of SNPL and CLTE management activities on CLTE is beneficial.

Impacts of proposed new SNPL and CLTE Management activities on CLTE are addressed in EIR sections 6.3.2.2 and 6.4.1.2.

Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), and Water Quality Monitoring (CA-19). Effects on CLTE from these natural resource management activities are described in HCP sections 4.4.1.2.1 through 4.4.1.2.3 and 4.4.1.2.5. 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, conducts invasive species control in the HCP area, as determined to be necessary, and monitors water quality. The activities are conducted by CDPR staff who are trained in avoidance and minimization protocols, including applicable AMMs. As a result, these existing activities in the natural resources management program have no risk of affecting CLTE habitat and mortality or injury has not been documented.

Although most of these activities do not occur in areas where CLTE are known to nest or roost, listed plant monitoring occurs in North and South Oso Flaco during the breeding season. CLTE are not known to nest within North or South Oso Flaco and have not been disturbed by these activities to date. However, if CLTE nest in these areas in the future these activities can disturb nesting CLTE and deter them from incubating eggs or brooding chicks during the period of disturbance. All of these activities can disturb foraging or roosting CLTE by displacing them from foraging and/or roosting habitat during the period of disturbance and/or could be deterred from foraging and/or roosting during the period of disturbance. CDPR staff implements AMMs, including, but not limited to, CLTE AMMs 79-88 to minimize any effects on CLTE. As a result, the risk of disturbance effects on CLTE from natural resources management activities is low. This trend is expected to continue in the future.

If vegetation for restoration purposes is planted in and grows too densely within the footprint of the Southern Exclosure or other primary and/or secondary suitable CLTE nesting habitat, it can reduce CLTE breeding habitat in these areas.[7] To reduce this effect, vegetation associated with the habitat restoration program is not planted beyond existing vegetated islands and will avoid areas where CLTE are known to nest. As a result, the risk of this effect is low. This trend is expected to continue in the future.

Vegetation that is planted in the vicinity of known CLTE nesting and/or roosting habitat can affect CLTE by providing habitat for predators to hide and stalk nesting and/or roosting CLTE. To reduce this effect, CDPR implements a predator management program that has been successful at controlling predators in the HCP area and protecting breeding CLTE. The predator management program has likely increased reproductive success for CLTE and is expected to alleviate effects associated with any additional vegetation being planted near CLTE habitat. As a result, the risk of this effect is low. This trend is expected to continue in the future.

Invasive plants have been shown to prevent CLTE from nesting in otherwise suitable areas; therefore, removal of invasive plants (CA-17) ultimately improves native habitats and potentially increases available CLTE habitat in the HCP area. This effect on CLTE is beneficial. This trend is expected to continue in the future.

Impacts of proposed new natural resources management activities on CLTE are addressed in EIR sections 6.3.2.2 and 6.4.1.2.

WHPP Implementation (CA-18). Effects on CLTE from WHPP implementation are described in HCP section 4.4.1.2.4. Effects on CLTE are similar to those described above for SNPL above. CDPR implements AMMs (Appendix B), as appropriate, such as having a monitor with 10(a)(1)(A) Recovery Permit (or approved by the USFWS) conduct the surveys near the seasonal exclosure, to minimize effects on CLTE. This disturbance effect on CLTE is low; however, based upon many years of implementation, the monitoring data presented in the HCP demonstrates the information collected as part of these surveys has a beneficial effect that exceeds the disturbance effects. Therefore, the overall existing effect of WHPP on CLTE is beneficial. This trend is expected to continue in the future.

Park Maintenance

General Facilities Maintenance (CA-21) and Heavy Equipment Response (CA-29). Effects on CLTE from general facilities maintenance and heavy equipment response are described in HCP section 4.4.1.3.2 and section 4.4.1.3.9, 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 in EIR section 6.3.2.2. The activities occur by CDPR staff who are trained in avoidance and minimization protocols. Effects on 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 16 and 89-91 ensures these effects do not occur. As a result, the risk of mortality/injury or disturbance effects are low. This trend is expected to continue in the future.

[7] Installing plants at the start of the CLTE breeding season specifically to enhance breeding habitat is a separate action from habitat restoration (HCP section 4.3.1.2.2).

In the rare event a CLTE establishes a nest outside of the exclosure that 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 8, which requires daily searches for nests in potential nesting habitat that is outside these exclosures to reduce this effect. In addition, any nests found outside a seasonal exclosure are quickly protected by a single-nest exclosure CLTE AMMs 10-16). As a result, the risk of mortality/injury or disturbance effects are low. This trend is expected to continue in the future.

Foraging and/or roosting CLTE can be 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 effects 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 87-89 to ensure the effect is minimized. As a result, this disturbance effect is low. This trend is expected to continue in the future.

The placement of restroom facilities within CLTE breeding habitat reduces the amount of habitat available to SNPL for breeding by precluding them from nesting within the footprint of the structures. However, restroom facilities are small (i.e., approximately 8 feet by 8 feet), and they are placed in areas where CLTE do not typically nest (i.e., outside the Exclosures). Therefore, this habitat effect is considered to be low. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal on CLTE are addressed in EIR section 6.3.2.2.

Trash Control (CA-22). Effects on CLTE from trash control 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. Because most of the large trash dumpsters are located in the dunes approximately 2 miles from the 6 Exclosure, vehicle strike and disturbance of nesting CLTE is unlikely when visitors or maintenance staff access these dumpsters. However, some large trash dumpsters near Post 2 are located within CLTE primary habitat.

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 within the seasonal exclosure 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 1-23 and 89-91 ensure vehicle strike and/or disturbance does not occur. Therefore, the risk of mortality/injury or disturbance effects are low. This trend is expected to continue in the future.

Although infrequent, some garbage pick-up, including volunteer beach cleanup and cleanup of the beach after a storm, is required in the HCP area. These activities are conducted outside of the CLTE breeding season to the extent feasible. If activities occur during the breeding season (e.g., after a storm event), they are planned to avoid active CLTE nesting areas. When cleanups do occur, whether during the breeding or non-breeding season, they are typically completed on foot with handheld trash bags and can cause similar disturbance of roosting and/or foraging CLTE as general maintenance activities (see section above). To reduce any effects from volunteer cleanup, CDPR implements the ongoing SNPL and CLTE management program, which includes ensuring all staff that conduct beach cleanups will continue to be given a training on SNPL life history and conservation measures, and a CLTE monitor during the breeding season. Effects from beach

cleanup are considered to be low with the implementation of the SNPL and CLTE management program AMMs. This trend is expected to continue in the future.

Trash dumpsters can attract a large number of gulls that land and forage in the dumpsters if they are left uncovered, and uncovered trash bins within or near CLTE breeding habitat can artificially increases predatory species populations, including gulls, and thus increase 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 can increase depredation of CLTE. To reduce these effects, CDPR now uses a covered dumpster design with openings on the side, which has been found to attract fewer gulls than the previous open design. CDPR also implements a predator management program to ensure depredation of CLTE is minimized. Reducing predator presence near the dumpsters reduces the risk of predation on CLTE. As a result, the risk of predation from trash control is low, and overall, controlling trash within the HCP area benefits CLTE. This trend is expected to continue in the future.

Wind Fencing (CA-23), Perimeter and Vegetation Island Fencing (CA-27), Minor Grading (CA-30), and Boardwalk/Other Pedestrian Maintenance (CA-31). Effects on CLTE from these park maintenance activities are described in HCP sections 4.4.1.3.4, 4.4.1.3.8, 4.4.1.3.10, and 4.4.1.3.11. These activities typically occur outside the nesting season and do not affect CLTE. However, at times, boardwalks and/or fencing need to be maintained to ensure their integrity, and this can occur during the nesting season. The activities are conducted by CDPR staff who are trained in avoidance and minimization protocols. Effects on CLTE have not been observed from these activities, especially with the implementation of CLTE AMMs. In addition, these activities do not modify CLTE nesting or foraging habitat. As a result, the risk of effects resulting in mortality/injury, disturbance, or habitat effects are low. This trend is expected to continue in the future.

Sand Ramps and Other Vehicular Access Maintenance (CA-24). Effects on CLTE from sand ramps are described in HCP section 4.4.1.3.5. CLTE are not known or expected to nest near the sand ramps. To ensure that breeding CLTE are not affected, CDPR will continue to conduct surveys of the sand ramps once per day as part of the daily transects associated with the SNPL and CLTE management program (AMM 97). In addition, sand ramp maintenance activities is postponed if any nests are found. Therefore, effects on breeding CLTE from sand ramp maintenance are low. This trend is expected to continue in the future.

Other vehicular access maintenance activities (e.g., maintenance of parking areas, the Grand Dunes Trail, and access corridors at Oso Flaco Lake) are outside of CLTE breeding and foraging habitat, and maintenance does not affect CLTE.

Routine Riparian Maintenance (CA-26). Effects on CLTE from routine riparian maintenance are described in HCP section 4.4.1.3.6. Routine riparian maintenance is currently conducted in the HCP area at Oso Flaco Lake, Meadow Creek, Carpenter Creek, Pismo Lake, and Oceano Lagoon under a CDFW Lake and Streambed Alteration Agreement (1600-2012-0001-R4). Routine riparian maintenance activities are not conducted in suitable CLTE nesting habitat; therefore, these activities do not affect nesting CLTE. The Pismo Lake spillway and the two culverts at Oso Flaco Lake are maintained as needed. CLTE may forage and/or roost adjacent to riparian maintenance areas in open water habitats including Pismo Lake and Oso Flaco Lake. Maintenance typically entails CDPR staff manually or, if needed, mechanically removing vegetation, debris, and sediment build-up above the natural channel bed. Noise from equipment

during culvert maintenance can temporarily disturb foraging CLTE and interfere with foraging activity if conducted during the CLTE breeding season. Routine riparian maintenance work in or adjacent to CLTE foraging habitat is implemented outside of the breeding season, when feasible. If maintenance activities must be conducted during the breeding season, CDPR implements CLTE AMM 98 to minimize effects of disturbance to foraging CLTE. This includes having a monitor present to observe CLTE behavior and stopping work if CLTE are observed being disturbed until it is determined that no additional effects will occur. As a result, the disturbance effects of these activities on CLTE are low. This trend is expected to continue in the future.

All tree trimming and invasive plant removal activities at Oso Flaco Lake occur between August 15 and March 1, which is largely outside the CLTE breeding season. If CLTE are present in Oso Flaco Lake, tree trimming and invasive plant removal can disturb foraging CLTE and interfere with foraging activities. To reduce this effect, CDPR implements CLTE AMM 98. There is no risk or mortality or injury from tree trimming because most tree trimming occurs when CLTE are already gone from the HCP area, and AMMs are implemented to avoid effects if a CLTE is observed. The risk of disturbance effects from tree trimming and invasive species removal are also low. This trend is expected to continue in the future.

Visitor Services

Ranger, Lifeguard, Park Aide Patrols (CA-32) and Beach Concessions (CA-36). Effects on CLTE from ranger, lifeguard, and park patrols are described in HCP section 4.4.1.4.1, and effects on CLTE from beach concessions are described in HCP section 4.4.1.4.5. The potential threats posed by routine, non-emergency ranger and park staff patrols are similar to those described for general facilities maintenance in that patrol vehicles drive along the beaches and dunes within posted speed limits. Ranger and patrol vehicles are not expected to enter the exclosures during normal, non-emergency response without having a USFWS-approved monitor escort them into the area; therefore, effects on CLTE nesting within the exclosures are considered to be minimal. Lifeguard towers are not placed within habitat used by CLTE for nesting; therefore, no effects on nesting CLTE occur from lifeguard tower activity. 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 89 that requires staff training, and CLTE AMM 90 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, the risk of mortality or injury is low. 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 night 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. 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 implements CLTE AMMs 1-24 to reduce disturbance effects on nesting CLTE from motorized vehicle activity. As a result, the risk of disturbance effect is low. 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. In addition, concession services are required to drive the speed limit and observe other park regulations (CLTE AMM 100). As a result, the risk of disturbance effect is low. This trend is expected to continue in the future.

Emergency Response (CA-33) and Access by non-CDPR vehicles (CA-34). Effects on CLTE from emergency response and non-CDPR vehicles are described in HCP sections 4.4.1.4.2 and section 4.4.1.4.3, respectively. Emergency medical and law enforcement responses by CDPR staff, which are important for maintaining human safety, can occur anywhere within the HCP area and are difficult to predict. Occasional but necessary high-speed travel by medical and law enforcement vehicles responding to an emergency sometimes occurs in areas without frequent vehicular traffic. In the past, vehicles driven by non-CDPR personnel, including law enforcement agencies, salvage personnel, and marine mammal rescue responders, may have caused unpredictable disturbances, often involving multiple vehicles and unrestricted access to the shoreline. However, the Oceano Dunes District has enacted policies requiring non-park personnel to notify park staff when access to park lands is necessary. Non-park personnel that are granted vehicular access are informed of any restricted areas or other special conditions before entering the HCP area. Except in cases of extreme emergencies, this practice has eliminated resource damage and reduced mortality, injury, and disturbance to CLTE.

Most CLTE nest and roost within the Southern Exclosure and are protected from being injured or killed by a speeding emergency vehicle. CLTE forage over water and are thus not at risk of being struck by a speeding emergency vehicle while foraging. 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 mortality or injury from emergency response and access by non-CDPR vehicles is low. This trend is expected to continue in the future.

The effects of medevac helicopters on CLTE are similar to those described above for SNPL and the risk of disturbance effects is moderate. 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 can be separated from adults during the disturbance, which can leave them vulnerable to predation and/or inclement weather. Disturbance can also cause chicks to move into the open riding area. Although emergency response has occurred within the seasonal exclosure, such events are rare and do not occur in most years. Monitors also inform emergency responders of the locations of sensitive areas and escort emergency response personnel into and out of the seasonal exclosure, when feasible (CLTE AMM 99). 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 effects that occurred. Due to event infrequency, short-term duration of disturbance, and use of monitors (if feasible), the risk of

disturbance effect of these covered activities is low. This trend is expected to continue in the future.

Natural History and Interpretation Programs (CA-39). Effects on CLTE natural history and interpretation programs are described in HCP section 4.4.1.4.7. 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. To minimize possible disturbance to foraging and/or roosting CLTE at Oso Flaco Lake, CDPR implements AMM 101, which requires CDPR hold large group programs when CLTE are not present or modify the program to avoid disturbance, resulting in a low risk of disturbance. This trend is expected to continue in the future.

Other Activities

Vehicle Crossing of Creeks (CA-40). Effects on CLTE from vehicle crossing of creeks are described in HCP section 4.4.1.5.1. 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. CLTE are not known to nest near Pismo/Carpenter Creek or the shoreline area near Oso Flaco Creek. In addition, CLTE have not nested near Arroyo Grande Creek since 2005. Therefore, effects on nesting CLTE in these areas are unlikely.

Effects on foraging CLTE during motorized vehicle crossings of Pismo/Carpenter Creek, Oso Flaco Creek, or Arroyo Grande Creek are minimal since CLTE forage over water and do not typically forage within the portion of the creek that vehicles will cross. In addition, any vehicle crossing is typically short in duration only lasting a few minutes.

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 cross Arroyo Grande Creek. CDPR and non-CDPR vehicles crossing creeks can disturb roosting CLTE if they roost at this location. In addition, vehicles crossing creeks can strike a roosting adult or juvenile. CLTE are typically only observed roosting at these 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. In addition, CDPR implements CLTE AMMs, including AMMs associated with motorized recreation (CA-1), which reduce The effects on CLTE roosting in this area. As a result of implementing AMMs the risk of disturbance, mortality or injury effects are low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). Effects on CLTE from dust control activities are described in HCP section 4.4.1.5.5. Many dust control projects have already been conducted in the HCP area, as described in HCP Section 2.2.5.5; maintenance of dust control measures is ongoing. Dust control activities conducted to-date has 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 in accordance with the Oceano Dunes SVRA Dust Control Program MMRP (CDPR 2017). As a result, the risk of mortality/injury or disturbance effects from existing dust control activities is low.

The 48-acre foredune, in which CDPR installed experimental planting treatments in February 2020, is located outside the Southern Exclosure area but within CLTE primary habitat. The 48-acre foredune area has developed moderate amounts of plant cover, low topography, and areas of

scattered straw since it was planted in 2020. The 48-acre foredune area is closed to pedestrians year-round currently, but open to CDPR staff needing to maintain the vegetated areas or to access the air quality equipment. The areas will be opened to pedestrians once CDPR has determined that the vegetation is adequately established. CLTE almost exclusively nest in the Southern Exclosure and have not nested in the foredune areas. Although it is unlikely CLTE will begin nesting outside the Southern Exclosure in the 48-acre foredune area, 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 in the foredune vicinity, and maintenance and pedestrian activities within the foredune itself, could result in disturbance of nesting CLTE, and CLTE could be deterred from incubating eggs or brooding chicks. However, CDPR will implement CLTE AMMs, as appropriate, including closing the 48-acre foredune area to the public if nests are found or by providing a single-nest exclosure as determined by the experienced CLTE biologist if appropriate. CLTE AMMs 1 through 22 reduce the risk of crushing a nest or killing/injuring a chick. As a result, the risk of mortality, injury, or disturbance of nesting CLTE in the 48-acre foredune is low. This trend is expected to continue in the future.

The foredune area has not been used by CLTE for a night roost, likely because the vegetation establishment has made the area unsuitable. Should CLTE change the location of their night roost to the foredune area, pedestrian and vehicle activities adjacent to the foredune could disrupt night-roosting CLTE. To reduce the risk of disturbance effects, CDPR will continue to implement the SNPL and CLTE management program in the HCP area. Thus, the risk of disturbance to roosting CLTE is low. This trend is expected to continue in the future.

The 48-acre foredune area may increase recreation and motorized activity directly adjacent to the 6 Exclosure as vehicles travel within the gap 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 nested near the fenceline of the 6 Exclosure. To minimize effects on CLTE nests, CDPR will 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 this disturbance effect is low. This trend is expected to continue in the future.

The multi-strand metal fencing used for these foredune areas 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 or near the exclosure fence, or nearby shoreline. These birds might have been injured or killed due to striking the fence (CDPR 2014). Based on previous nesting patterns from 2002 to 2023, CLTE are not expected to nest or form a night roost within the 48-acre foredune areas since they are almost exclusively found nesting and roosting within areas fenced and closed to the public (e.g., Southern Exclosure, CLTE large single-nest exclosures). As a result, CLTE are unlikely to be affected by the foredune fencing. However, if a CLTE did nest or form a night roost within these areas, it could collide with the multi-strand metal fence when flying from or to the area from another location. In 2015, CDPR began placing thick plastic fencing (orange silt construction fencing cut into approximately 1-foot sections) to the top of sections of the seasonal exclosure to increase the visibility of the exclosure fence and has continued use of the orange fencing from 2016 to 2023 with favorable results (CLTE AMM 75). As a result, if CLTE are observed by a

CDPR biologist to be at risk of fence collision and it is determined necessary to protect CLTE from the risk of fence collision, CDPR will implement this program by lining the top of the 48-acre closure fence 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. Therefore, the risk of this mortality or injury effect on CLTE is low.

Approximately 44 acres of primary habitat have been planted with foredune vegetation, and the remaining 4 acres were not planted as a control but may be planted in the future. The current vegetation has resulted in making the 48-acre foredune area less suitable for CLTE nesting. Depending on the density of the foredune vegetation and topography, the area may still retain some suitable CLTE nesting habitat characteristics. Nevertheless, The effects of the reduction in primary CLTE habitat are moderate.

Vegetation planted for dust control, especially vegetation planted within primary or secondary habitat, may affect breeding CLTE by providing habitat for mammalian predators to hide and stalk nesting and/or roosting CLTE or may attract avian predators to hunt vegetated areas closer to CLTE breeding areas. In addition, the wire fence surrounding the vegetation areas is the same type as vegetation island fence and does not keep coyotes or other predators out of the area. CDPR will implement all CLTE AMMs (HCP Table 5-3), as appropriate, to reduce effects from dust control activities. These measures will include continuing CDPR's predator management program, which has been successful at controlling predators that are observed targeting or disturbing CLTE adults, chicks, or eggs. As a result, the risk of increased predation on CLTE is low.

Impacts of proposed new dust control activities on CLTE are addressed in EIR section 6.4.1.2.

Cultural Resource Management (CA-45). Effects on CLTE from cultural resources management are described in HCP section 4.4.1.5.6. Cultural resource management activities are generally conducted outside areas where CLTE are typically observed or outside the CLTE breeding season and do not affect CLTE. In the unlikely event that cultural resource management activities must occur in CLTE areas where CLTE typically nest, forage, and/or roost during the breeding season, these activities could disturb and/or displace CLTE from roosting or nesting. To reduce any effects from cultural resource management activities, CDPR will continue to implement the SNPL and CLTE management program. As a result, the risk of mortality or injury and disturbance effects are low. This trend is expected to continue in the future.

Use of Pesticide (CA-51). Effects on CLTE from use of pesticides are described in HCP section 4.4.1.5.12. Pesticide effects on CLTE are similar as those described for SNPL above. Pesticide use, including aerial spraying, does not occur during the breeding season in areas where CLTE are known to nest. The activities occur by CDPR staff or contractors working under the direction of CDPR staff who are trained in avoidance and minimization protocols. In addition, CLTE AMMs 105-111, which include delaying work if a CLTE is observed nearby, not spraying if wind speed is over 10 miles per hour, and ensuring all workers are trained to work in sensitive habitat, are implemented to reduce these effects in the event a CLTE occurs nearby. As a result, there is no risk of mortality or injury from pesticide use and disturbance effects are low. Ultimately, pesticide use in the HCP area is beneficial to CLTE by reducing the spread of invasive plant species into CLTE breeding habitat. This trend is expected to continue in the future.

Southwestern Pond Turtle (SWPT)

A total of 5,005 acres are mapped as SWPT habitat in the HCP area, including 254 acres of aquatic habitat and 4,751 acres of upland habitat. Based on CDPR data, SWPT occur in aquatic habitat and surrounding upland habitat at Oso Flaco Lake, Jack Lake, Arroyo Grande Creek and Oceano Lagoon and Pismo Creek (Figure 6-3). CDPR staff have consistently seen them during some exploratory surveys completed in 2024 and 2025. In addition, numerous trails, the North Beach Campground levee, or foot bridges near the Pismo State Beach monarch grove are adjacent to areas mapped as potential SWPT breeding habitat. SWPT may disperse into the HCP area from surrounding aquatic habitat at Pismo Creek or Pismo Lake.

Covered activities that have no risk of affecting SWPT aquatic or upland habitat are dismissed from further discussion. Existing covered activities with no effects on SWPT include Bicycling and Golfing (CA-4), Boating/Surfing (CA-8), Aerial/Wind-Driven Activities (CA-9), SNPL and CLTE Management (CA-12a and 12b), General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance (CA-28), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Ranger, Lifeguard, and Park Aide Patrols (CA-32), ASI Courses (CA-35), Beach Concessions (CA-36), Natural History and Interpretation Programs (CA-39), Cultural Resources Management (CA-45), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

No existing covered activities have been identified that would have a high risk of effect on SWPT. Existing covered activities with low to moderate risk of affecting SWPT are described below and are part of the baseline environmental conditions. SWPT is expected to benefit from the existing covered activities in the HCP's conservation program by controlling invasive species that may compete with or predate SWPT, improving or enhancing suitable habitat, and collecting information on SWPT that may aid in conservation. Covered activities that may benefit SWPT include Tidewater Goby and Salmonid Surveys (CA-13), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Water Quality Monitoring (CA-19), Trash Control (CA-22), Dust Control Activities (CA-44), and Use of Pesticides (CA-51).

See Table D-1 for the risk level of existing covered activities affecting SWPT, as well as existing covered activities with beneficial effects on SWPT.

Park Visitor Activities

Motorized Recreation (CA-1). Effects on SWPT from motorized recreation are described in HCP sections 4.5.1.1.1. Motorized recreation does not affect aquatic SWPT habitat, as motorized vehicles are not allowed in SWPT aquatic habitat. Motorized recreation is permitted in 507 acres of suitable SWPT upland habitat. Motorized recreation is generally limited to the beaches and dunes comprising barren sand in the HCP area and does not permanently alter beach and dune upland habitat where SWPT occur. Although these areas are considered suitable upland dispersal habitat for SWPT, this habitat is likely rarely used by SWPT for dispersal in contrast to more suitable habitats since these areas provide minimal cover and are generally inhospitable to SWPT. Although rare, when environmental conditions are right, SWPT could disperse overland through habitat used by motorized vehicles. If SWPT did disperse through areas where motorized recreation occurs, SWPT could be struck by vehicles and injured or killed. In 2018 a rider did report finding a SWPT in the open riding area and possible SWPT tracks were seen on a different occasion near post 3.5. However, CDPR staff have not directly observed a SWPT in the

vegetation islands or in the open riding area to date, and all other documented occurrences have been directly within the vicinity of a water feature. In addition, CDPR implements SWPT AMMs 1-3 and 5 to minimize The effects of park visitors on SWPT. As a result, the risk of mortality, injury, or disturbance effects on SWPT is low. This trend is expected to continue in the future.

Camping (CA-2). Effects on SWPT from camping are described in HCP section 4.5.1.1.2. Camping in the open riding area is not expected to affect aquatic SWPT habitat as this typically occurs along the shoreline and open beaches, well away from any SWPT aquatic habitat. Effects on SWPT from camping within suitable upland habitat have not been observed in the past and are anticipated to be minimal in the future. Any effects that do occur are expected to be similar to those described above for Motorized Recreation (CA-1).

The two designated campgrounds within the HCP area are adjacent to potential SWPT aquatic habitat, including Meadow Creek, Carpenter Creek, Oceano Lagoon, and Pismo Creek. There are four occurrences of SWPT near Oceano Campground at Oceano Lagoon with one occurrence near North Beach Campground near Pismo Creek, all recorded within the last few years (iNaturalist 2024). CDPR staff consistently saw them during exploratory surveys completed in 2024 and 2025 Activities at the campground have not been known to affect SWPT or their habitat to date. The campgrounds are close to potential SWPT aquatic habitat; however, and upland areas within the campgrounds could prove suitable for nesting or overwintering during non-peak days when disturbance is low. Such a nest or individual would be vulnerable to damage/injury or mortality, and hatchlings would be vulnerable to being crushed, captured, or other harm. In general, it is not likely that pedestrian activities at the campgrounds will cause direct mortality of SWPT individuals. Park visitors, including campers, are prohibited from collecting animals and plants and damaging park resources, although a camper might pick up a SWPT if found or accidently crush a nest hidden within a campsite. Although rare, moving vehicles in the campground could inadvertently strike a SWPT that has left the creek or lagoon and entered the campground or a hatchling leaving a nest; however, this has never been documented in the HCP area, and the risk of this mortality or injury effect is low.

Camping can include an increase in trash, which can boost predator populations and thereby incidentally increase predation on SWPT. To minimize this effect, CDPR implements SWPT AMMs 11-13 including provision of trash dumpsters, informing visitors on proper disposal of trash, and CDPR removal of litter and debris. As a result, the risk of increased predation on SWPT is low. This trend is expected to continue in the future.

Pedestrian Activities (CA-3). Effects on SWPT from pedestrian activities are described in HCP section 4.5.1.1.3. Pedestrian activities, dog walking, and equestrian recreation have little, if any, effect on SWPT or its habitat since SWPT are found in aquatic habitats less frequented by visitors. In addition, visitor activities do not result in permanent loss of aquatic or upland habitat.

Pedestrians in suitable SWPT upland habitat are unlikely to encounter a SWPT and/or kill or injure a SWPT if it is encountered, although pedestrians might pick up a SWPT if found given the species' somewhat slow speed on land. Pedestrians that cross creeks or enter lagoons could stir up sediments and produce turbid stream flow in suitable aquatic SWPT habitat. Sediment and turbidity can affect SWPT by burying food sources, altering pool-riffle habitats, and affecting smaller riparian and in-stream vegetation. Potential turbidity effects caused by pedestrians crossing creeks or entering lagoons are largely considered to be temporary. Ponded areas of Arroyo Grande Creek and Estuary are closed to all visitors to protect tidewater goby breeding from early spring to late summer, which may also prevent disturbance of SWPT and their habitat

in those areas, although the closure may be too early to protect emerging hatchlings. Pedestrians could damage or destroy a SWPT nest by stepping on it or disturb or crush emerging hatchlings. If a SWPT nest is discovered in a location that may be accessible to pedestrians, CDPR biologists will evaluate conditions to determine if monitoring is needed and whether to install protective measures to protect the nest and hatchlings. As a result, the risk of injury or mortality and disturbance effects on SWPT are low. This trend is expected to continue in the future.

Fishing (CA-5). Effects on SWPT from fishing are described in HCP section 4.5.1.1.4. The effects on SWPT from fishing are similar to the discussion above regarding pedestrian effects described above; however, effects would not be isolated to the crossings typical of pedestrian uses. People fishing generally occupy habitat longer than pedestrians who are just passing through. All life stages of SWPT have the potential to be affected by fishing, potentially from trampling nests within vegetated areas, disturbing aquatic and terrestrial basking activities, or affecting aquatic foraging of juveniles and adults in aquatic habitats. SWPT occur in habitats where fishing may occur (Oceano Lagoon, Oso Flaco Lake). Fishing activities may disturb nesting and basking in upland habitats increasing the chances of predation or nest failures. No known mortalities have been reported for SWPT within the HCP area (see below regarding possible injury/mortality from entanglement). CDPR will restrict fishing activities from occurring near known SWPT nests (SWPT AMM 14).

Fishing line or hooks, whether in active use or discarded, can entangle or pierce SWPT adults or juveniles. A SWPT was rescued from fishing line at Oceano Lagoon, and sent to an approved rehabilitation clinic in September 2016 (CDPR 2024). In addition to trash, discarded fishing bait may further attract predators to SWPT habitat and thus increase predation on SWPT. To reduce this effect, CDPR will incorporate considerations for SWPT which includes encouraging and educating anglers about properly disposing of fishing lines, hooks, and bait in trash receptacles (SWPT AMM 15). In addition, CDPR staff will continue to manually remove litter and garbage from the beaches. Despite implementation of AMMs, the risk of mortality/injury or disturbance to SWPT from fishing activities is moderate. This trend is expected to continue in the future.

Dog Walking (CA-6). Effects on SWPT from dog walking are described in HCP section 4.5.1.1.5. Like pedestrians, dogs have not been documented affecting SWPT, but any effects are difficult to observe and could occur without being observed. In general, dogs wading and swimming in estuaries or creeks occupied by SWPT can affect water quality by depositing waste, trampling vegetation, and temporarily increasing turbidity, thereby temporarily affecting habitat, foraging, ability to escape from predators, and reproductive success. However, dogs will continue to be required to be on a leash no longer than 6 feet and remain under the control of an owner at all times, and waste bags will continue to be provided in the HCP area (SWPT AMMs 16-17). As a result, the risk of these disturbance effects on SWPT from dog walking is low. This trend is expected to continue in the future.

Equestrian Recreation (CA-7). Effects on SWPT from equestrian recreation are described in HCP section 4.5.1.1.5. Most equestrian-based activities occur in the northern portion of the HCP area and are considered to have little, if any, effect on SWPT or its habitat since SWPT tend to be found in habitats where equestrian activity does not occur and/or habitats that are less frequented by visitors. If horses cross creeks or enter lagoons that are suitable habitat for SWPT, they can have similar effects on SWPT as pedestrians crossing creeks (see Pedestrian Activities section above). The risk of injury or mortality and disturbance effects on SWPT from equestrian recreation are low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on SWPT from holidays and special events are described in HCP sections 4.5.1.1.7 and 4.5.1.1.8. In accordance with the Oceano Dunes CDP (CDP-4-82-300-A5), Oceano Dunes SVRA does not allow additional vehicles to enter the HCP area on holidays or for special events. Therefore, no additional effects on SWPT occur from motorized recreation on holidays or special events. Effects on holidays and special events from non-motorized recreation are similar to those described above for Camping (CA-2) and Pedestrian Activities (CA-3). The increase in visitors on holidays and special events can increase the amount of trash in the HCP area; however, this is not likely to result in additional effects on SWPT that have not previously been described.

Special Event permits do not authorize activities to occur in areas that would otherwise be closed to visitors; therefore, no additional effects from non-motorized and motorized activities occur in SWPT habitat that is typically off limits to visitors. However, special events are potentially different from typical non-special event activities. First, many events tend to focus participants in the event area, which could mean that spectators or vendors are more concentrated in a given area than they might otherwise be during an ordinary day. Many special events occur during shoulder seasons and increase visitation at times when visitation would typically be lower. Effects on SWPT from concentrating spectators and vendors in an area is likely similar to The effects described for Motorized Recreation (CA-1), Camping (CA-2), and/or Pedestrian Activities (CA-3). All permits authorizing special events will include AMMs to reduce disturbance to SWPT (SWPT AMM 19).

The risk of mortality, injury, or disturbance effects on SWPT from holidays and special events is low. This trend is expected to continue in the future.

Natural Resources Management

Tidewater Goby and Salmonid Surveys (CA-13). The effects of tidewater goby and salmonid surveys on SWPT are described in HCP section 4.5.1.2.1. Occasionally, SWPT individuals could be present within tidewater goby and salmonid survey areas. If encountered unintentionally when seining or dipnetting in Arroyo Grande Creek or other non-routine surveys in aquatic habitats where SWPT may occur, CDPR biologists can affect all SWPT life stages (i.e., hatchlings, juveniles, and adults). However, CDPR implements SWPT AMMs 20-25 to avoid or minimize effects on SWPT. For example, fisheries biologists permitted to perform tidewater goby and salmonid surveys in SWPT habitat would conduct a visual survey for SWPT individuals prior to sampling in areas where SWPT may be present. If individuals are discovered, sampling for tidewater goby conducted in a way that avoids all individuals. As a result, effects on SWPT during tidewater goby and salmonid surveys have not occurred in the past and are not expected in the future.

As part of the USFWS 10(a)(1)(A) Recovery Permit for tidewater goby, electrofishing is not allowed during tidewater goby surveys or within tidewater goby habitat; however, electrofishing is allowed in areas upstream of tidewater goby habitat under the terms of other scientific collecting permits and authorizations and is sometimes conducted for other fisheries surveys. Consequently, although unlikely, electrofishing activities could result in injury or mortality of SWPT juveniles or adults. However, effects due to electrofishing are minimized by having a qualified biologist/Natural Resource staff conduct visual surveys as surveys are being conducted with appropriate avoidance measures if a SWPT is found in the survey area. Thus, the risk of this mortality or injury effect on SWPT is low. This trend is expected to continue in the future.

Fisheries surveys require biologists to stand in water and seine/dipnet or electrofish for fish. Surveys within aquatic habitats can indirectly affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment that is stirred up during seining, electrofishing, and/or dipnetting activities is minimal, localized, and temporary. As a result, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

Although information is currently limited on the spread of diseases affecting non-captive bred SWPT, such as respiratory disease and shell disease, fisheries biologists do follow decontamination protocols to prevent the spread of amphibian chytridiomycosis (SWPT AMM 25). To the extent diseases affecting SWPT could otherwise be spread by surveys, the decontamination protocol would reduce or eliminate the risk. As a result, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

To reduce predation from invasive species, CDPR will implement CRLF AMMs 22-24. For example, qualified biologists/Natural Resource staff and consultants working under CDPR's 10(a)(1)(A) Recovery Permit (or approved by USFWS) will euthanize invasive species (e.g., bullfrogs, largemouth bass, red-eared sliders, crayfish) incidentally encountered during fisheries and herpetological surveys, which will also reduce predation on SWPT. This is a beneficial effect on SWPT.

Impacts of proposed tidewater goby salvage on SWPT are addressed in EIR section 6.3.2.3.

Herpetological Monitoring and Management (CA-14). The effects of herpetological monitoring and management on SWPT are described in HCP section 4.5.1.2.2. Most CRLF surveys result in minimal effects on SWPT since most surveys for CRLF are eyeshine surveys conducted from the edge of the water bodies and/or kayak and only involve visually scanning for CRLF and/or egg masses. Biologists do access CRLF survey sites via potential SWPT nesting habitat. During these surveys, care is taken not to disturb sediments or vegetation, but a SWPT nest could be crushed. CRLF surveys are conducted by a qualified biologist/Natural Resource staff. Therefore, effects on SWPT and/or nests will continue to be minimal during surveys.

Dipnetting surveys for CRLF are infrequently conducted in the HCP area. These surveys are conducted by CDPR biologists or their USFWS-approved contractors for purposes of monitoring, identification, and management of the species. CDPR biologists or their contractors could affect mobile life stages of SWPT (i.e., hatchlings, juveniles, and adults) during monitoring surveys that involve dipnetting. During these surveys, CDPR biologists or their contractors could capture, injure, or kill a SWPT hatchling, juvenile, or adult, and biologists could inadvertently crush a nest. To reduce effects associated with these surveys when they do occur, they will continue to be conducted by an approved biologist and will continue to be conducted in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF (SWPT AMM 27). Biologists conducting herpetological surveys will all be trained in identification and avoidance measures for SWPT. Although capture of hatchling, juvenile, or adult SWPT could occur during CRLF surveys mortality and/or injury will continue to be minimized, if not eliminated. Thus, the risk of this mortality or injury effect on SWPT is low. This trend is expected to continue in the future.

Dipnet surveys involve biologists standing in water. Surveys within aquatic habitats affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment stirred up during wading and/or dipnetting activities is minimal, localized, and temporary. As a result, this does not affect SWPT or their

habitat in the long term. The risk of this disturbance effects on SWPT is low. This trend is expected to continue in the future.

Although information is currently limited on the spread of diseases affecting non-captive bred SWPT, such as respiratory disease and shell disease, biologists do follow decontamination protocols to prevent the spread of amphibian chytridiomycosis (SWPT AMM 25). As a result, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

Impacts of proposed SWPT and WSF monitoring on SWPT are addressed in EIR section 6.3.2.3.

Listed Plant Management (CA-15). The effects of listed plant management on SWPT are described in HCP section 4.5.1.2.3. Only activities associated with marsh sandwort and/or Gambel's watercress are considered to have potential to affect SWPT. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort and Gambel's watercress in the HCP area to date are not known to have affected SWPT. Monitoring of marsh sandwort and Gambel's watercress is not expected to affect SWPT since this occurs on foot by a trained botanist. Any future monitoring, propagation, and habitat enhancement activities for marsh sandwort and Gambel's watercress at Oso Flaco Lake has the potential to temporarily effect all life stages of SWPT (i.e., eggs, juveniles, and adults). Activities can result in injury or mortality if a SWPT or nest is present within the work area. In addition, activities can disturb SWPT located near the work area and cause stress or cause them to move from cover where they may be exposed to predation. To minimize effects on SWPT associated with these activities, depending on the type of activities (e.g., ground disturbance), surveys for SWPT are conducted within 100 feet of any propagation and habitat enhancement activities in Oso Flaco Lake to ensure no SWPT are present. If a SWPT is observed, activities are postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determine the activities can continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures (SWPT AMM 30). As a result, the risk of mortality, injury, and disturbance effects on SWPT are low. This trend is expected to continue in the future.

Activities within aquatic habitats affect SWPT by temporarily stirring up sediment and increasing turbidity. However, any sediment stirred up during activities is minimal, localized, and temporary. In addition, CDPR implements SWPT AMMs 28-29 to avoid or minimize turbidity during listed plant management. As a result, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

Ultimately, listed plant habitat enhancement at Oso Flaco Lake and in other aquatic habitat where SWPT may occur, benefits SWPT by reducing invasive plants in the area and improving habitat in the HCP area for SWPT. This trend is expected to continue in the future.

Impacts of proposed listed plant propagation and outplanting on SWPT are addressed in EIR section 6.4.1.3.

Habitat Restoration Program (CA-16). The effects of the habitat restoration program on SWPT are described in HCP section 4.5.1.2.4. Habitat restoration conducted in the HCP area to date is not known to have affected SWPT and is part of the management program offsetting the incidental take of SWPT from other covered activities; however, this management also has the potential to result in injury or mortality if a SWPT is present within the work disturbance area. Restoration can directly affect all SWPT life stages (i.e., eggs, hatchlings, juveniles, and adults), including by grading, ground disturbance with hand tools, vegetation removal and installation,

and maintenance activities. In addition, activities can disturb SWPT located near the work area and cause them to move from cover where they may be exposed to predation. To minimize these possible effects, depending on the type of activities (e.g., ground disturbance), surveys for SWPT are conducted, as needed, to ensure no SWPT are present. If a SWPT is observed, activities are postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities can continue with minimal risk to the safety of the SWPT, which may include implementing additional AMMs such as exclusion fencing or biological monitoring. As a result, the risk of mortality, injury, and disturbance effects on SWPT are low. This trend is expected to continue in the future.

Impacts of proposed dune slack restoration and CalVTP on SWPT are addressed in EIR sections 6.3.2.3 and 6.4.1.3.

Invasive Plant and Animal Control (CA-17). The effects of invasive plant and animal control on SWPT are described in HCP section 4.5.1.2.5. Invasive plant or animal control activities conducted in the HCP area to date are not known to have affected SWPT. CDPR biologists can directly affect all life stages of SWPT (i.e., eggs, hatchlings, juveniles, and adults) by disturbing occupied habitat during standard invasive animal and plant control efforts. Invasive pest plant and animal control activities may require qualified biologists/Natural Resource staff or CDPR approved contractors to remove pest plants and animals in suitable SWPT aquatic or upland habitat, including moist vegetated areas that SWPT can use for dispersal. Activities like bullfrog removal can involve staff working in or adjacent to aquatic habitat which could involve the risk of crushing adults and juveniles, stirring up sediment, or crushing nests. However, pre-activity surveys are conducted, at the discretion of a CDPR biologist, prior to commencing any activities that can disturb suitable SWPT aquatic or upland habitat to minimize effects of these activities on SWPT. If a SWPT is observed, activities are postponed until a qualified biologist/Natural Resource staff relocates the individual or will continue once they determine the activities can continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, the risk of mortality, injury, and disturbance effects on SWPT is low. This trend is expected to continue in the future.

Activities within aquatic habitats affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment stirred up during activities is minimal, localized, and temporary. As a result, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

CDPR implements SWPT AMM 31 as funding and staff resources allow, which includes invasive plant control and vegetation management in SWPT habitat. Ultimately, invasive-pest plant and animal control in aquatic and/or upland habitat where SWPT may occur benefits them by reducing invasive species in the HCP area and improving their habitat. This activity more than offsets adverse effects on SWPT by removing vegetation and/or animals that pose a threat to SWPT individuals or its habitat.

Impacts of proposed invasive aquatic predator control on SWPT are addressed in EIR section 6.3.2.3.

Water Quality Monitoring (CA-19). The effects of water quality monitoring on SWPT are described in HCP section 4.5.1.2.6. Water quality monitoring in the HCP area to date is not known to have affected SWPT. Installation of water quality monitoring equipment can temporarily affect SWPT by disturbing individuals as workers enter occupied aquatic habitat.

However, pre-activity surveys are conducted as needed prior to commencing activities disturbing suitable SWPT aquatic habitat to minimize effects of these activities on SWPT. If a SWPT is observed, activities are postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determine the activities can continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, the risk of disturbance effects on SWPT from water quality monitoring is low. This trend is expected to continue in the future.

Maintenance of water quality monitoring equipment within aquatic habitats can affect SWPT by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment stirred up during activities is minimal, localized, and temporary. As a result, the risk of disturbance effects on SWPT from water quality monitoring is low. This trend is expected to continue in the future.

Improvements to water quality that result from ongoing water quality monitoring and improvement projects in occupied habitat ultimately benefits SWPT by creating more suitable habitat within the HCP area. This trend is expected to continue in the future.

Park Maintenance

Campground Maintenance (CA-20). The effects of campground maintenance on SWPT are described in HCP section 4.5.1.3.1. The two designated campgrounds within the HCP area are adjacent to potential aquatic habitats including Meadow Creek, Carpenter Creek, Oceano Lagoon, and Pismo Creek. Campground maintenance includes mowing and other off-pavement activities that could affect dispersing or overwintering individuals or nests through direct crushing or disturbance. Maintenance vehicles at the campground can inadvertently strike a SWPT that has left the creek or lagoon and entered the campground area; however, this has never been reported in the HCP area to date. Effects from campground maintenance are avoided or minimized through on-going AMMs including the limited extent of mowing to only ensure safe public access, avoiding wetlands and aquatic habitats, pre-activity surveys, and postponing work if a SWPT is observed (SWPT AMMs 32-33). As a result, the risk of mortality, injury, or disturbance effects on SWPT from campground maintenance is low. This trend is expected to continue in the future.

General Facilities Maintenance (CA-21). The effects of general facilities maintenance on SWPT are described in HCP section 4.5.1.3.2. CDPR maintains facilities and infrastructure that support public activities throughout the HCP area. These maintenance areas include sites like the levee and trail from Grand Avenue to Pismo Beach, underground infrastructure to support the corporation yard and developed campgrounds, fences around areas like the corporation yard, and a network of formal trails around Oceano Lagoon and the Grand Dunes. Maintenance of these facilities could include minor grading, routine vegetation control, pedestrian bridge maintenance, and other projects that could occur in or near the mapped breeding habitat for SWPT. In particular, maintenance of trails, the North Beach Campground levee, and foot bridges near the Pismo State Beach monarch grove could involve work near wetlands or areas mapped as potential breeding habitat for SWPT. This work is infrequent, and standard AMMs will be followed including pre-project surveys as needed, timing projects to avoid critical life stages, and relocation of individuals if found in work areas. As a result, the risk of mortality, injury, or disturbance effects on SWPT from general facilities maintenance is low. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal on SWPT are addressed in EIR section 6.3.2.3.

Routine Riparian Maintenance (CA-26). The effects of routine riparian maintenance on SWPT are described in HCP section 4.5.1.3.3. Riparian maintenance activities are not known to have affected SWPT in the past. Riparian maintenance activities that can affect SWPT include the clearing of debris, vegetation, and sediment from culverts and spillways; riparian tree and shrub vegetation control (e.g., removing or trimming vegetation); and emergent and invasive species control. SWPT may occur in riparian areas where maintenance activities are located. If SWPT eggs, hatchlings, juveniles, or adults are present in the riparian maintenance area they can be directly affected by disturbance to habitat. Individuals may be disturbed by or caught in rakes or other hand equipment used to remove sediment, debris, or vegetation. Adults, juveniles, hatchlings, or eggs can also be disturbed or crushed by workers or equipment during culvert and spillway maintenance and the removal of emergent vegetation. However, SWPT AMMs 34-43 will be implemented to avoid or minimize effects on SWPT. For example, culvert maintenance is conducted during periods when individuals are unlikely to occur in the area, to the extent feasible. In addition, at the discretion of a qualified biologist/Natural Resource staff based on the likelihood of habitat supporting SWPT, the qualified biologist/Natural Resource staff will conduct a survey of the work area for SWPT within 48 hours prior to any riparian maintenance activities. If SWPT adults, juveniles, or hatchlings are observed, work will not commence until AMMs are in place. Furthermore, a biological monitor will be present, as necessary, during maintenance activities to ensure SWPT are not present while work is occurring, and measures will be in place to prevent equipment, fuels and fluids from entering aquatic habitat. As a result, the risk of mortality, injury, or disturbance to SWPT is low. This trend is expected to continue in the future.

Riparian maintenance activities can temporarily increase turbidity because the in-stream vegetation traps and holds sediments. Temporarily suspended sediment can affect SWPT. However, sediment stirred up during activities will remain minimal, localized, and temporary. In addition, heavy equipment will not be placed in the water, and backhoe work will continue to be restricted to the roadside or upper bank with only the bucket placed in the water body. Therefore, effects associated with suspended sediments will continue to be minimized and will not affect SWPT habitat in the long-term. As a result, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

Riparian maintenance activities can affect an annual maximum of approximately 0.3 acre of wetlands for culvert cleanout, debris removal, and emergent vegetation removal. In addition, approximately 5.9 miles of riparian corridor segments will continue to be subject to tree maintenance and invasive weed control as the need arises. Maintenance of these areas will continue to reoccur over the course of the permit, as needed, when vegetation regrows. These activities can temporarily affect aquatic and/or riparian habitat available for SWPT. However, these effects will continue to be minor, localized, and temporary. Thus, the risk of permanent effects on SWPT habitat is low. This trend is expected to continue in the future.

Boardwalk and Other Pedestrian Access Maintenance (CA-31). The effects of boardwalk and other pedestrian access maintenance on SWPT are described in HCP section 4.5.1.3.4. Maintenance of trail and access corridors, including boardwalks, paths, and sand ramps, is completed on an as-needed basis. The frequency of this work mainly depends on visitor use and/or any weather-related damage. Some of this work could occur near wetlands or areas mapped as potential breeding habitat for SWPT. This work is infrequent, and standard AMMs will be followed including pre-project surveys as needed, timing projects to avoid critical life

stages, and relocation of individuals if found in work areas. Vegetation intruding onto any footpaths may need to be trimmed at least once a year and is usually completed using hand tools (SWPT AMM 44). Vegetation trimming does not involve plant removal or disturbance of soil or aquatic habitat where SWPT may occur; thus, vegetation trimming is unlikely to affect SWPT habitat or individuals. Any effects on SWPT aquatic habitat during boardwalk maintenance will continue to be minor and temporary, and potential for direct effects on individuals will continue to be low. This trend is expected to continue in the future.

Visitor Services

Emergency Response (CA-33). The effects of emergency response on SWPT are described in HCP section 4.5.1.4.1. It is necessary from time to time for law enforcement and/or medical aid to respond to an emergency that is located off a designated trail. When this occurs, there can be some trampling of vegetation near an aquatic resource or a creek might be crossed without the use of a bridge or hardened bottom. These activities can result in damage to SWPT habitat. This damage is difficult to document; however, damage to habitat is considered to be minor and temporary and the risk of this effect occurring is low. This trend is expected to continue in the future.

Emergency vehicle direct effects on SWPT are difficult if not impossible to document since emergency response must be implemented immediately and quickly. It is possible that eggs, hatchlings, juveniles, or adults can be directly affected by such an incident by being struck/crushed by a vehicle. This will especially be true for vehicles that need to drive above the 15-mph speed limit to respond to an emergency. Because of the infrequent nature of these activities, the risk of mortality, injury, or disturbance effects on SWPT is low. This trend is expected to continue in the future.

Emergency response activities that cross creeks can temporarily stir up sediment and increase turbidity. Sediment stirred up during activities is localized and temporary (lasting only during the emergency action) and therefore, the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

Access by Non-CDPR Vehicles (CA-34). The effects of access by non-CDPR vehicles on SWPT are described in HCP section 4.5.1.4.2. Non-emergency non-CDPR vehicles and/or staff generally access areas open to public vehicles along the beach and adjacent shoreline, following all applicable speed limits. Such vehicles do not enter the Exclosures or Oso Flaco area where vehicles are prohibited. Given the focused purpose such staff have when entering the HCP area, effects from their vehicles are likely less than those of motorized recreation. Effects from emergencies associated with non-CDPR vehicles, however, are similar to those effects described for CA-33 above, and CDPR is not always able to train non-CDPR responders. Therefore, given the travel speeds sometimes necessary for emergency response, some vehicle strikes or other harm may not be avoided. Because of the infrequent nature of emergency response, the risk of mortality, injury, or disturbance effects on SWPT is low. This trend is expected to continue in the future.

Pismo State Beach Golf Course Operations (CA-37). The effects of Pismo State Beach Golf Course operations on SWPT are described in HCP section 4.5.1.4.3. SWPT has been observed near Oceano Lagoon and at Pismo Creek, and thus has a low to moderate potential to occur in nearby Meadow Creek and Carpenter Creek, both of which are adjacent to Pismo State Beach Golf Course. SWPT may disperse to Meadow Creek, Carpenter Creek, and/or the golf course ponds. If SWPT disperse through the golf course to reach these locations, golf course operations

and maintenance activities, such as golf cart traffic and mowers, can potentially strike SWPT individuals and injure or kill them. Maintenance activities and golf cart traffic is unlikely to affect SWPT because of the infrequency with which SWPT is expected to occur within these areas. Additionally, the low grass height at the golf course makes it easier for equipment operators and golf cart traffic to spot and avoid a SWPT. As a result, the risk of mortality or injury from golf course operations is low. This trend is expected to continue in the future.

Maintenance of water features in the golf course can potentially disturb all life stages (i.e., eggs, hatchlings, juveniles, adults) of SWPT during emergent vegetation trimming and removal or repair of bridges, although the species has never been observed within the golf course or its water features. Further, most vegetation trimming is conducted by hand. In addition, if determined to be necessary by a CDPR biologist (e.g., there is previous evidence of SWPT activity from surveys), pre-activity surveys are conducted prior to commencing any activities that may disturb suitable SWPT aquatic habitat to minimize effects of these activities on SWPT. If a SWPT is observed, activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or can proceed once they determine the activities can continue with minimal risk to the safety of the SWPT, which may include implementing AMMs. In addition to relocation, AMMs may include exclusion fencing, biological monitoring, or other measures. As a result, the risk of disturbance from maintenance of golf course water features is low. This trend is expected to continue in the future.

Activities within the golf course ponds can affect SWPT by temporarily stirring up sediment and increasing turbidity. Sediment stirred up during activities is localized and temporary and the risk of this disturbance effect on SWPT is low. This trend is expected to continue in the future.

Other Activities

Vehicle Crossing of Creeks (CA-40). The effects of vehicle crossing of creeks on SWPT are described in HCP section 4.5.1.5.1. SWPT 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; therefore, no effects are likely to occur in these locations.

Carpenter Creek may provide suitable habitat for SWPT, although focused surveys have not been performed to confirm if SWPT are present. If present, SWPT could be inadvertently struck by a vehicle crossing the creek; however, vehicle operators will continue to be encouraged to cross in areas with low or no flow, and all vehicles will continue to be required to travel at a speed of 15 mph or less. CDPR will also temporarily close vehicle crossings if they pose a risk or SWPT and prevent vehicle activity in ponded areas (SWPT AMM 45-46). As a result, the risk of mortality, injury, or disturbance effects on SWPT is low. This trend is expected to continue in the future.

Vehicles crossing aquatic SWPT habitats affect SWPT by temporarily stirring up sediment and increasing turbidity. Sediment stirred up during vehicle crossings is localized and temporary and will not affect SWPT habitat in the long-term. As a result, the risk of this disturbance effect is low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). The effects of dust control activities on SWPT are described in HCP section 4.5.1.5.3. Dust control activities are currently occurring in the HCP area as part of the Dust Control Program. Existing dust control activities including maintenance of dust control measures and temporary monitoring sites and do not result in effects on SWPT aquatic habitat. However, dust control maintenance activities can temporarily disturb nesting, basking, or foraging SWPT. It is unlikely, but possible, that SWPT 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. To avoid these effects, CDPR implements AMMs for SWPT, 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). Effects on SWPT from dust control activities have not been observed and are not known. As a result, the risk of mortality, injury, or disturbance effects on SWPT are low. This trend is expected to continue in the future.

In addition, vegetation planted for dust control activities provides necessary cover for SWPT if they are dispersing through the area and benefits SWPT overall. This trend is expected to continue in the future.

Impacts of proposed new dust control activities on SWPT are addressed in EIR section 6.4.1.3.

Cultural Resources Management (CA-45). The effects of cultural resources management on SWPT are described in HCP section 4.5.1.5.4. To date, cultural resource management has not resulted in effects on SWPT. If a new cultural site is found, effects from cultural resource management would be similar to those described for General Facilities Maintenance (CA-21) in the Park Maintenance section above, and implementation of AMMs would ensure the risk of mortality, injury, or disturbance effects on SWPT are low.

CDPR Management of Agricultural Lands (CA-46). The effects of CDPR management of agricultural lands on SWPT are described in HCP section 4.5.1.5.5. Two ditches associated with agricultural lands contain runoff from the agricultural lands and flow to Oso Flaco Lake. SWPT have not been found within the agricultural ditches; however, SWPT adults could be present in these areas in the future and activities could disturb or injure/kill an individual (e.g., when equipment is used to remove sediment, debris, or vegetation). CDPR will implement AMMs, including conducting activities during low flow periods (if feasible), having a qualified biologist/Natural Resource staff conduct a focused survey of the work area (subject to their discretion), and having a qualified biologist/Natural Resource staff present (if necessary), to reduce the potential to disturb, injure, or kill SWPT. As a result, the risk of mortality, injury, or disturbance effects on SWPT are low. This trend is expected to continue in the future.

Use of Pesticides (CA-51). The effects of use of pesticides on SWPT are described in HCP section 4.5.1.5.8. CDPR used vector control and terrestrial and aquatic herbicides (together "pesticides") broadly in the HCP area over the past 15 years. Licensed applicators apply pesticides with backpack sprayers, vehicle-mounted sprayers, and helicopter booms. The District Draft Aquatic Pesticide Application Plan (APAP) guides the application of pesticides through an Integrated Pest Management (IPM) program. Aquatic applications are applied for mosquito control, while semi-aquatic or terrestrial applications include strategic treatment of veldt grass, Russian wheat grass (*Elytrigia juncea* ssp. *boreali-atlantica*), European beachgrass, and giant reed (*Arundo donax*) present along riparian corridors, lagoons, and wetlands in the HCP area.

The effects from pesticide exposure on SWPT are not well documented. The 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 SWPT mortality is unlikely from pesticide use in aquatic habitats. In addition, application of these pesticides takes place between October 1 and February 28 when SWPT are less likely to be present in aquatic habitats. Nevertheless, pesticides used in the HCP area may cause mortality if SWPT ingest a lethal level of pesticide directly or through other pathways. Use of pesticides may also cause

disturbance effects by changing food availability and habitat and water quality or be affected by human activity of the application.

Broad-scale insecticide use to reduce mosquito larvae in wetland areas that contain SWPT 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. However, no relevant information was found detailing either of these potential threats. Because of the uncertainty in the risk of pesticide effects on non-target species, a rigorous AMM project was established avoid and minimize the potential deleterious effects including the implementation of APAP, pre-application clearance surveys near aquatic habitats, assessment of environmental conditions prior to application, assessment of needs and methodology prior to application, spill prevention plan, and qualification standards, among others (SWPT AMMs 55-65). Due to the uncertainty in the effect of pesticide use in upland and aquatic habitats on WSF, the risk of mortality/injury or effects on SWPT from pesticide use is moderate.

Based on years of survey data for covered species and implementation of specific AMMs for pesticide use, pesticide use within the HCP area is expected to benefit SWPT by preventing invasive plants from taking over SWPT habitat or providing hiding places for predators. This trend is expected to continue in the future.

California Red-legged Frog (CRLF)

A total of 5,005 acres were mapped as suitable CRLF habitat in the HCP area: 178 acres of aquatic habitat and 4,827 acres of upland habitat. CRLF occurs in Arroyo Grande Creek and Estuary, Meadow Creek, Carpenter Creek, Oceano Lagoon, Oso Flaco Creek, Little Oso Flaco Lake, Jack Lake, and Oso Flaco Lake. CRLF may disperse into the HCP area from aquatic habitat up to 1 mile surrounding the HCP area. There have been no recorded instances of historic take of CRLF in the HCP area.

Covered activities that have no risk of affecting CRLF aquatic or upland habitat are dismissed from further discussion. Existing covered activities with no effects on CRLF include Bicycling and Golfing (CA-4), Fishing (CA-5), Boating/Surfing (CA-8), Aerial/Wind-Driven Activities (CA-9), SNPL and CLTE Management (CA-12a and 12b), WHPP Implementation (CA-18), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance (CA-28), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Ranger, Lifeguard, and Park Aide Patrols (CA-32), ASI Courses (CA-35), Beach Concessions (CA-36), and Natural History, Interpretation Programs (CA-39), and Cultural Resources Management (CA-45).

No existing covered activities have been identified that would have a high risk of effect on CRLF. Existing covered activities with low or moderate risk of affecting CRLF are described below and are part of the baseline environmental conditions. CRLF is expected to benefit from the existing covered activities in the HCP's conservation program by controlling invasive species that may compete with or predate CRLF, improving or enhancing suitable habitat, and collecting information on CRLF that may aid in conservation. Covered activities that may benefit CRLF include Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Invasive Plant and Animal Control

(CA-17), WHPP Implementation (CA-18), Water Quality Monitoring (CA-19), Trash Control (CA-22), Dust Control Activities (CA-44), and Use of Pesticides (CA-51).

See Table D-1 for the risk level of existing covered activities affecting CRLF, as well as existing covered activities with beneficial effects on CRLF.

Park Visitor Activities

Motorized Recreation (CA-1). Effects on CRLF from motorized recreation are described in HCP section 4.6.1.1.1. The effects of motorized recreation on CRLF are similar to those described for SWPT above. Motorized recreation does not affect aquatic CRLF habitat, as motorized vehicles are not allowed in CRLF aquatic habitat. Motorized recreation is permitted in 1,407 acres of suitable CRLF upland habitat; however, The effects of motorized recreation on CRLF upland habitat are not known to have occurred in the past and are expected to continue to be minimal in the future. If CRLF did disperse through areas where motorized recreation occurs, CRLF could be struck by vehicles and injured or killed. However, CDPR staff have not observed a CRLF in the vegetation islands or in the open riding area to date. In addition, CRLF would most likely disperse through these types of upland habitat at night and during rain events, when motorized recreation tends to be low. In addition, CDPR implements CRLF AMMs 1-3 to minimize The effects of park visitors on CRLF. As a result, the risk of mortality, injury, or disturbance effects on CRLF is low. This trend is expected to continue in the future.

Camping (CA-2). Effects on CRLF from camping are described in HCP section 4.6.1.1.2. The effects of camping on CRLF are similar to those described for SWPT above. Camping has not been known to affect CRLF or their habitat to date. Moving vehicles in the campgrounds near CRLF habitat could inadvertently strike a CRLF that has left the creek or lagoon and entered the campground; however, this mortality or injury effect has never been documented in the HCP area, and the risk of this happening in the future is low. Indirect effects on CRLF from camping activities include an increase in trash, which could potentially boost predator populations (e.g., raccoons) and thereby incidentally increase predation on CRLF. To minimize this effect, CDPR implements CRLF AMMs 10-12. As a result, the risk of increased predation on CRLF is low. This trend is expected to continue in the future.

Pedestrian Activities (CA-3). Effects on CRLF from pedestrian activities are described in HCP section 4.6.1.1.3. Most pedestrian-based activities are considered to have little, if any, effect on CRLF or its habitat since CRLF tend to be found in aquatic habitats less frequented by visitors. In addition, visitor activities do not result in loss of permanent loss of aquatic or upland habitat. As a result, it is unlikely that most pedestrian activities will directly affect CRLF in the future.

Pedestrians in suitable CRLF upland habitat are unlikely to encounter a CRLF and/or kill or injure a CRLF if it is encountered. Pedestrians that cross creeks or enter lagoons could stir up sediments and produce turbid stream flow in suitable aquatic CRLF habitat. Sediment and turbidity can affect CRLF by affecting respiratory functions, burying food sources, altering pool-riffle habitats, and affecting smaller riparian and in-stream vegetation. Potential turbidity effects caused by pedestrians crossing creeks or entering lagoons are largely considered to be temporary. CDPR will also continue to monitor popular creek crossings (e.g., Arroyo Grande Creek, Carpenter Creek and Pismo Creek) for CRLF. If CRLF are observed in or near creek crossings, CDPR will continue to post signs to close the crossings and encourage the use of other paths in the HCP area (CRLF AMM 13). As a result, the risk of this disturbance effect on CRLF is low. This trend is expected to continue in the future.

Dog Walking (CA-6). Effects on CRLF from dog walking are described in HCP sections 4.6.1.1.4. Dog walking could have similar disturbance effects on CRLF as described above for SWPT. However, dogs will continue to be required to be on a leash no longer than 6 feet and remain under the control of an owner at all times, and waste bags will continue to be provided in the HCP area (CRLF AMMs 14-16). As a result, the risk of disturbance effects on CRLF from dog walking is low. This trend is expected to continue in the future.

Equestrian Recreation (CA-7). Effects on CRLF from equestrian recreation are described in HCP sections 4.6.1.1.5. Most equestrian-based activities occur in the northern portion of the HCP area and are considered to have little, if any, effect on CRLF or its habitat since CRLF tend to be found in habitats where equestrian activity does not occur and/or habitats that are less frequented by visitors. As a result, it is unlikely that equestrian activities will directly affect CRLF in the future. If horses cross creeks or enter lagoons that are suitable habitat for CRLF, they can have similar effects on CRLF as pedestrians crossing creeks (see Pedestrian Activities section above). The risk of injury or mortality and disturbance effects on CRLF from equestrian recreation are low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on CRLF from holidays and special events are described in HCP sections 4.6.1.1.6 and 4.6.1.1.7. Effects on CRLF from holidays and special events are similar to effects on SWPT described above. In accordance with the Oceano Dunes CDP (CDP-4-82-300-A5), Oceano Dunes SVRA does not allow additional vehicles to enter the HCP area on holidays or for special events. Special Event permits do not authorize activities to occur in areas that would otherwise be closed to visitors; therefore, no additional effects from non-motorized and motorized activities occur in CRLF habitat that is typically off limits to visitors. In addition, all permits authorizing special events will include AMMs to reduce disturbance to CRLF (CRLF AMM 17). The risk of mortality, injury, or disturbance effects on CRLF from holidays and special events is low. This trend is expected to continue in the future.

Natural Resources Management

Tidewater Goby and Salmonid Surveys (CA-13). The effects of tidewater goby and salmonid surveys on CRLF are described in HCP section 4.6.1.2.1. The effects of tidewater goby and salmonid surveys on CRLF are similar to effects on SWPT described above. Occasionally, egg masses and CRLF individuals are present within tidewater goby and salmonid survey areas. If encountered unintentionally when seining or dipnetting in Arroyo Grande Creek or other aquatic habitats where CRLF may occur, CDPR biologists can affect all CRLF life stages (i.e., eggs, tadpoles, juveniles, and adults). However, CDPR implements CRLF AMMs 18-25 to avoid or minimize effects on CRLF. The risk of mortality, injury, or disturbance on CRLF from these surveys is low. Overall, CRLF AMMs 22-24 have a beneficial effect by reducing predation on CRLF. This trend is expected to continue in the future.

Impacts of proposed tidewater goby salvage on CRLF are addressed in EIR section 6.3.2.4.

Herpetological Monitoring and Management (CA-14). The effects of herpetological monitoring and management on CRLF are described in HCP section 4.6.1.2.2. The effects of herpetological monitoring and management on CRLF are similar to effects on SWPT described above. Most CRLF surveys result in minimal effects on CRLF since most surveys for CRLF are eyeshine surveys conducted from the edge of the water bodies and/or kayak and only involve visually scanning for CRLF and/or egg masses. Dipnetting surveys are infrequently conducted in the HCP area. CDPR biologists or their contractors could affect all life stages of CRLF (i.e., eggs, tadpoles, juveniles, and adults) when handling individuals and egg masses during CRLF dipnet

surveys. To reduce effects associated with these surveys when they do occur, they will continue to be conducted by an approved biologist and will continue to be conducted in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF (CRLF AMM 26). Thus, the risk of this mortality, injury, or disturbance effects on CRLF is low. Ultimately, CRLF surveys and associated management benefit CRLF by providing information necessary to contribute to conservation of the species. This trend is expected to continue in the future.

Impacts of proposed SWPT and WSF monitoring on CRLF are addressed in EIR section 6.3.2.4.

Listed Plant Management (CA-15). The effects of listed plant management on CRLF are described in HCP section 4.6.1.2.3. The effects of listed plant management on CRLF are similar to effects on SWPT described above. Only activities associated with marsh sandwort and/or Gambel's watercress are considered to have potential to affect CRLF. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort and Gambel's watercress in the HCP area to date are not known to have affected CRLF. Any future monitoring, propagation, and habitat enhancement activities for marsh sandwort and Gambel's watercress at Oso Flaco Lake has the potential to temporarily affect all life stages of CRLF (i.e., eggs, tadpoles, juveniles, and adults). To minimize effects CRLF associated with these activities, CDPR implements CRLF AMMs 27-30. As a result, the risk of mortality, injury, and disturbance effects on CRLF is low. Ultimately, listed plant habitat enhancement at Oso Flaco Lake and in other aquatic habitat where CRLF may occur, benefits CRLF by reducing invasive plants in the area and improving habitat in the HCP area for CRLF. This trend is expected to continue in the future.

Impacts of proposed listed plant propagation and outplanting on CRLF are addressed in EIR section 6.4.1.4.

Habitat Restoration Program (CA-16). The effects of the habitat restoration program on CRLF are described in HCP section 4.6.1.2.4. Habitat restoration conducted in the HCP area to date is not known to have affected CRLF and is part of the management program offsetting the incidental take to CRLF from other covered activities; however, this management also has the potential to result in injury or mortality if a CRLF is present within the work disturbance area. Restoration can directly affect all CRLF life stages (i.e., eggs, tadpoles, juveniles, and adults), including by grading, ground disturbance with hand tools, vegetation removal and installation, and maintenance activities. In addition, activities can disturb CRLF located near the work area and cause them to move from cover where they may be exposed to predation. To minimize these possible effects, depending on the type of activities (e.g., ground disturbance), surveys for CRLF are conducted, as needed, to ensure no CRLF are present. If a CRLF is observed, activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities can continue with minimal risk to the safety of the CRLF, which may include implementing additional AMMs such as exclusion fencing or biological monitoring. As a result, the risk of mortality, injury, and disturbance effects on CRLF is low. This trend is expected to continue in the future.

Impacts of proposed dune slack restoration and CalVTP on CRLF are addressed in EIR sections 6.3.2.4 and 6.4.1.4.

Invasive Plant and Animal Control (CA-17). The effects of invasive plant and animal control on CRLF are described in HCP section 4.6.1.2.5. The effects of invasive plant and animal control on CRLF are similar to effects on SWPT described above. Invasive plant or animal control activities conducted in the HCP area to date are not known to have affected CRLF. CDPR biologists can

directly affect all life stages of CRLF (i.e., eggs, tadpoles, juveniles, and adults) by disturbing occupied habitat during standard invasive animal and plant control efforts. However, CDPR implements all CRLF AMMs as appropriate to avoid or minimize effects on CRLF. As a result, the risk of mortality, injury, and disturbance effects on CRLF is low. This trend is expected to continue in the future.

CDPR implements CRLF AMM 31 as funding and staff resources allow, which includes invasive plant control and vegetation management in CRLF habitat. Ultimately, invasive-pest plant and animal control in aquatic and/or upland habitat where CRLF may occur benefits them by reducing invasive species in the HCP area and improving their habitat.

Impacts of proposed invasive aquatic predator control on CRLF are addressed in EIR section 6.3.2.4.

Water Quality Monitoring (CA-19). The effects of water quality monitoring on CRLF are described in HCP section 4.6.1.2.6. The effects of water quality monitoring on CRLF are similar to effects on SWPT described above. Water quality monitoring in the HCP area to date is not known to have affected CRLF. Installation of water quality monitoring equipment can temporarily affect CRLF by disturbing individuals as workers enter occupied aquatic habitat. However, CDPR implements all CRLF AMMs 32-33 and all other AMMs as appropriate to avoid or minimize effects on CRLF. As a result, the risk of disturbance effects on CRLF is low. Improvements to water quality that result from ongoing water quality monitoring and improvement projects in occupied habitat will ultimately benefit CRLF by creating more suitable habitat within the HCP area. This trend is expected to continue in the future.

Park Maintenance

Campground Maintenance (CA-20). The effects of campground maintenance on CRLF are described in HCP section 4.6.1.3.1. The effects of campground maintenance on CRLF are similar to effects on SWPT described above. Maintenance vehicles at the campground can inadvertently strike a CRLF that has left the creek or lagoon and entered the campground area; however, this has never been reported in the HCP area to date. Any CRLF dispersing through the campground area is expected to occur during the night or under wet conditions; therefore, ground-disturbing maintenance activities will continue to be avoided during heavy precipitation. Maintenance activities that continue in all weather will continue to be limited to housekeeping-type routine maintenance activities such as repairs to hose bibs and changing light bulbs that are not expected to affect CRLF. Effects from campground maintenance are avoided or minimized through on-going AMMs including the limited extent of mowing to only ensure safe public access, avoiding wetlands and aquatic habitats, pre-activity surveys, and postponing work if a CRLF is observed (CRLF AMMs 34-35). As a result, the risk of mortality, injury, or disturbance effects on CRLF from campground maintenance is low. This trend is expected to continue in the future.

General Facilities Maintenance (CA-21). The effects of general facilities maintenance on CRLF are described in HCP section 4.6.1.3.2. The effects of general facilities maintenance on CRLF are similar to effects on SWPT described above. Facilities maintenance could include minor grading, routine vegetation control, pedestrian bridge maintenance, and other projects that could occur in or near CRLF breeding or adjacent dispersal habitat. This work is infrequent, and CRLF AMMs will be followed including pre-project surveys as needed, timing projects to avoid critical life stages, and relocation of individuals if found in work areas. Given that these activities generally will not occur at night when most dispersal occurs, they are not unlikely to affect

CRLF. As a result, the risk of mortality, injury, or disturbance effects on CRLF from campground maintenance activities is low. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal on CRLF are addressed in EIR section 6.3.2.4.

Routine Riparian Maintenance (CA-26). The effects of routine riparian maintenance on CRLF are described in HCP section 4.6.1.3.3. Riparian maintenance activities have similar mortality or injury, turbidity, and habitat effects on CRLF as effects on SWPT described above. If CRLF egg masses, tadpoles, juveniles, or adults are present in the riparian maintenance area they can be directly affected by disturbance to habitat. Individuals may be disturbed by or caught in rakes or other hand equipment used to remove sediment, debris, or vegetation. Any egg masses or larvae can also be disturbed or crushed by workers or equipment during culvert and spillway maintenance and the removal of emergent vegetation. Riparian maintenance activities can temporarily result in an increase in turbidity because the in-stream vegetation traps and holds sediments. Riparian maintenance activities can affect an annual maximum of approximately 0.3 acre of wetlands for culvert cleanout, debris removal, and emergent vegetation removal, and riparian corridor segments will continue to be subject to tree maintenance and invasive weed control as the need arises. However, CRLF AMMs 36-45 will be implemented to avoid or minimize effects on CRLF. As a result, the risk of mortality, injury, or disturbance to CRLF is low. 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 culvert maintenance or removal of emergent vegetation can create areas of ponded water that support bullfrogs and invasive crayfish, both of which prey upon CRLF. To minimize these effects, project areas are left in a condition that mimics natural conditions and will not attract predators to the site. In addition, any non-native CRLF predators encountered (e.g., bullfrogs and invasive crayfish) will be removed by a qualified biologist/Natural Resource staff. Trash will also continue to be removed from the work area on a daily basis during all maintenance activities to minimize attracting potential predators (e.g., raccoons) to the work area. As a result, the risk of this effect on CRLF is low. This trend is expected to continue in the future.

CDPR biologists can facilitate the introduction of Bd, which is transported in water or mud, including in muddy footwear. Therefore, CDPR biologists will continue to use the Recommended Equipment Decontamination Procedures to minimize potentially spreading Bd. This includes disinfecting equipment and clothing after entering a pond/stream or before entering a water body 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, the risk of this disturbance effect on CRLF is low. This trend is expected to continue in the future.

Boardwalk and Other Pedestrian Maintenance (CA-31). The effects of boardwalk and other pedestrian maintenance on CRLF are described in HCP section 4.6.1.3.4. Maintenance of trail and access corridors, including boardwalks, paths, and sand ramps, is completed on an as-needed basis. The frequency of this work mainly depends on visitor use and/or any weather-related damage. Vegetation intruding onto any footpaths may need to be trimmed at least once a year and is usually completed using hand tools (CRLF AMM 46). Vegetation trimming does not involve plant removal or disturbance of soil or aquatic habitat where CRLF may occur; thus, vegetation trimming is unlikely to affect CRLF habitat or individuals. Any effects on CRLF aquatic habitat during boardwalk maintenance will continue to be minor and temporary, and

potential for direct effects on individuals will continue to be low. This trend is expected to continue in the future.

Visitor Services

Emergency Response (CA-33). The effects of emergency response on CRLF are described in HCP section 4.6.1.4.1. The effects of emergency response on CRLF are similar to The effects on SWPT described above, including temporary effects on habitat, vehicle strike, and turbidity. Because of the infrequent nature of these activities, the risk of mortality, injury, or disturbance effects on CRLF is low. This trend is expected to continue in the future.

Access by Non-CDPR Vehicles (CA-34). The effects of access by non-CDPR vehicles on CRLF are described in HCP section 4.6.1.4.2. The effects of access by non-CDPR vehicles on CRLF are similar to The effects on SWPT described above, and effects from emergencies associated with non-CDPR vehicles are similar to those effects described for emergency response. Because of the infrequent nature of emergency response, the risk of mortality, injury, or disturbance effects on CRLF is low. This trend is expected to continue in the future.

Pismo Beach Golf Course Operations (CA-37). The effects of Pismo Beach Golf Course operations on CRLF are described in HCP section 4.6.1.4.3. The effects of Pismo Beach Golf Course operations on CRLF are similar to The effects on SWPT described above. CRLF may disperse to Meadow Creek, Carpenter Creek, and/or the golf course ponds, especially during wet weather. If CRLF disperse through the golf course to reach these locations, golf course operations and maintenance activities, such as golf cart traffic and mowers, can potentially strike CRLF individuals and injure or kill them. Maintenance of water features in the golf course can potentially disturb all life stages (i.e., eggs, tadpoles, juveniles, adults) of CRLF during emergent vegetation trimming and removal or repair of bridges. Activities within the golf course ponds can affect CRLF by temporarily stirring up sediment and increasing turbidity. CDPR implements CRLF AMMs as needed to avoid or minimize effects on CRLF. As a result, the risk of mortality, injury, or disturbance effects on CRLF is low. This trend is expected to continue in the future.

Other Activities

Vehicle Crossing of Creeks (CA-40). The effects of vehicle crossing of creeks on CRLF are described in HCP section 4.6.1.5.1. The effects of vehicle crossing of creeks on CRLF are similar to The effects on SWPT described above. CRLF 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; therefore, no effects are likely to occur in these locations. CRLF could occur in Carpenter Creek and might be affected by vehicles crossing the creek. CRLF can be inadvertently struck by a vehicle crossing the creek. Vehicles crossing aquatic CRLF habitats also affect CRLF by temporarily stirring up sediment and increasing turbidity. However, vehicle operators will continue to be encouraged to cross in areas with low or no flow, and all vehicles will continue to be required to travel at a speed of 15 mph or less. CDPR will also temporarily close vehicle crossings if they pose a risk and prevent vehicle activity in ponded areas (CRLF AMM 47-48). As a result, the risk of mortality, injury, or disturbance effects on CRLF is low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). The effects of dust control activities on CRLF are described in HCP section 4.6.1.5.2. Existing dust control activities including maintenance of dust control measures and temporary monitoring sites and do not result in effects on CRLF aquatic habitat. However, dust control maintenance activities can temporarily disturb aestivating or dispersing CRLF. 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. To avoid these effects, 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). Effects on CRLF from dust control activities have not been observed and are not known. As a result, the risk of mortality, injury, or disturbance effects on CRLF are low. This trend is expected to continue in the future.

In addition, vegetation planted for dust control activities provides necessary cover for CRLF if they are dispersing through the area and benefits CRLF overall. This trend is expected to continue in the future.

Impacts of proposed new dust control activities are addressed in EIR section 6.4.1.4.

Cultural Resources Management (CA-45). The effects of cultural resources management on CRLF are described in HCP section 4.6.1.5.4. To date, cultural resource management has not resulted in effects on CRLF. If a new cultural site is found, effects from cultural resource management would be similar to those described for General Facilities Maintenance (CA-21) in the Park Maintenance section above, and implementation of AMMs would ensure the risk of mortality, injury, or disturbance effects on CRLF are low.

CDPR Agricultural Land Management (CA-46). The effects of CDPR agricultural land management on CRLF are described in HCP section 4.6.1.5.5. Two ditches associated with agricultural lands contain runoff from the agricultural lands and flow to Oso Flaco Lake. CRLF have not been found within the agricultural ditches; however, CRLF adults could be present in these areas in the future and activities could disturb or injure/kill an individual (e.g., when equipment is used to remove sediment, debris, or vegetation). CDPR will continue to implement AMMs, including conducting activities during low flow periods (if feasible), having a qualified biologist/Natural Resource staff conduct a focused survey of the work area (subject to their discretion), and having them present (if necessary), to reduce the potential to disturb, injure, or kill CRLF. As a result, the risk of mortality, injury, or disturbance effects on CRLF are low. This trend is expected to continue in the future.

Maintenance of a Bioreactor on Agricultural Lands (CA-47). The effects of maintenance of a bioreactor on CRLF are described in HCP section 4.6.1.5.6. Although the bioreactor requires little to no maintenance, given its location in aquatic habitat near known CRLF occurrences, a CRLF could be harmed during bioreactor maintenance activities. CDPR will implement all applicable AMMs for CRLF, as appropriate, including postponing non-emergency routine maintenance in the event of heavy rain events (CRLF AMM 5), worker employee training (CRLF AMM 7), and conducting pre-activity surveys if near aquatic habitat (CRLF AMM 28). By implementing AMMs, the risk of mortality/injury or disturbance effects on CRLF from bioreactor maintenance on agricultural lands is low. This trend is expected to continue in the future.

Use of Pesticides (CA-51). The effects of use of pesticides on CRLF are described in HCP section 4.6.1.5.9. CDPR used vector control and terrestrial and aquatic herbicides (together "pesticides") broadly in the HCP area over the past 15 years. Licensed applicators apply pesticides by backpack sprayers, vehicle-mounted sprayers, and helicopter booms. The APAP guides the application of pesticides through an Integrated Pest Management (IPM) program. Aquatic applications are applied for mosquito control, while semi-aquatic or terrestrial applications include strategic treatment of veldt grass, Russian wheat grass, European

beachgrass, and giant reed, present along riparian corridors, lagoons, and wetlands in the HCP area.

The effects from pesticide exposure on CRLF are not well documented. The 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 CRLF mortality is unlikely from pesticide use in aquatic habitats. In addition, application of these pesticides takes place between October 1 and February 28 when CRLF are less likely to be present in aquatic habitats. Nevertheless, pesticides used in the HCP area may cause mortality if CRLF ingest a lethal level of pesticide directly or through other pathways. Use of pesticides may also cause disturbance effects by changing food availability and habitat and water quality or be affected from human activity of the application.

Broad-scale insecticide use to reduce mosquito larvae in wetland areas that contain CRLF 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 used for aquatic invasive plants may alter the availability of cover for CRLF. However, no relevant information was found detailing either of these potential threats. Because of the uncertainty in the risk of pesticide effects on non-target species, a rigorous AMM project was established to avoid and minimize the potential deleterious effects including the implementation of APAP, pre-application clearance surveys near aquatic habitats, assessment of environmental conditions prior to application, assessment of needs and methodology prior to application, spill prevention plan, and qualification standards, among others (CRLF AMMs 57-66). Due to the uncertainty in the effect of pesticide use in upland and aquatic habitats on WSF, the risk of mortality/injury or effects on SWPT from pesticide use is moderate.

Based on years of survey data for covered species and implementation of specific AMMs for pesticide use, pesticide use within the HCP area is expected to benefit CRLF by preventing invasive plants from taking over CRLF habitat or providing hiding places for predators. This trend is expected to continue in the future.

Western Spadefoot (WSF)

A total of 5,005 acres were mapped as suitable WSF habitat in the HCP area: 135 acres of aquatic habitat and 4,870 acres of upland habitat. For mapping purposes, all upland habitat within 500 meters of aquatic habitat was considered suitable habitat. Although some of this habitat is developed, for purposes of incidental take coverage, this HCP assumes WSF could potentially occur throughout the 5,005-acre HCP area. WSF is almost completely terrestrial and enters water only to breed. WSF breed in aquatic habitat and timing is typically correlated with heavy rainfall. After egg laying and metamorphosis, juveniles may migrate to upland habitat within 500 meters of aquatic breeding habitat. Little is known about occurrence within the HCP area; however, records occur at the Eucalyptus Tree vegetation island (suspected), Oso Flaco Lake, and most recently (2023-2024) at the Guadalupe Restoration Project.

Existing covered activities that have no risk of affecting WSF aquatic or upland habitat are dismissed from further discussion. Existing covered activities with no effects on WSF include Bicycling and Golfing (CA-4), Fishing (CA-5), Boating/Surfing (CA-8), Aerial/Wind-Driven Activities (CA-9), WHPP Implementation (CA-18), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Cable Fence Maintenance (CA-28), Ranger, Lifeguard, and Park Aide Patrols (CA-32), ASI

Courses (CA-35), Beach Concessions (CA-36), Natural History and Interpretation Programs (CA-39), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

No existing covered activities have been identified that would have a moderate or high risk of effect on WSF. Existing covered activities with low to moderate risk of affecting WSF are described below and are part of the baseline environmental conditions. WSF is expected to benefit from the existing covered activities in the HCP's conservation program by controlling invasive species that may compete with or predate WSF, improving or enhancing suitable habitat, and collecting information on WSF that may aid in conservation. Covered activities that may benefit WSF include Tidewater Goby and Salmonid Surveys (CA-13), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Water Quality, Monitoring (CA-19), Trash Control (CA-22), Dust Control Activities (CA-44), and Use of Pesticides (CA-51).

See Table D-1 for the risk level of existing covered activities affecting WSF, as well as existing covered activities with beneficial effects on WSF.

Park Visitor Activities

Motorized Recreation (CA-1). Effects on WSF from motorized recreation are described in HCP section 4.7.1.1.1. Motorized recreation is prohibited in aquatic habitat; thus, there is no risk of mortality/injury, disturbance, or habitat effects on WSF in aquatic habitat. Motorized recreation occurs on 1,407 acres of suitable upland habitat comprised primarily of open dune and beach areas. The risk of direct effects includes the potential mortality or injury from vehicle strikes to dispersing individuals. Open areas of unvegetated dune and beach habitat provide minimal cover and are generally inhospitable to WSF. In the foredune area, WSF would most likely disperse between vegetative islands or between a matrix of slack wetlands and vegetative islands. Dispersal in these types of upland habitat would occur at night and during rain events, when motorized recreation tends to be low. In addition, CDPR implements CRLF AMMs 1-3 to minimize The effects of park visitors on WSF. As a result, the risk of mortality, injury, or disturbance effects on WSF is low. This trend is expected to continue in the future.

Disturbance to estivating individuals from low frequency noise and vibration of a vehicle can cause WSF to break dormancy and emerge at the wrong time, increasing the risk of desiccation or other harm. No effects on WSF from motorized recreation have been documented to date. There is a low risk of disturbance to aestivating WSF due to the limited overlap between OHV use and WSF burrowing habitat. This trend is expected to continue in the future.

Camping (CA-2). Effects on WSF from camping are described in HCP section 4.7.1.1.2. The effects of camping on WSF are similar to those described for SWPT above. Camping has not been known to affect WSF or their habitat to date. Moving vehicles in the campgrounds near WSF habitat could inadvertently strike a WSF that has left the creek or lagoon and entered the campground; however, this mortality or injury effect has never been documented in the HCP area, and the risk of this happening in the future is low. Indirect effects on CRLF from camping activities include an increase in trash, which could potentially boost predator populations (e.g., raccoons) and thereby incidentally increase predation on WSF. To minimize this effect, CDPR implements WSF AMMs 10-13. As a result, the risk of increased predation on WSF is low. This trend is expected to continue in the future.

Pedestrian Activities (CA-3). Effects on WSF from pedestrian activities are described in HCP section 4.7.1.1.3. Most pedestrian-based activities are considered to have little, if any, effect on WSF or its habitat since, when active, WSF tend to be found in aquatic habitats less frequented

by visitors. In addition, visitor activities do not result in permanent loss of aquatic or upland habitat. Pedestrians in suitable WSF upland habitat are unlikely to encounter a WSF and/or kill or injure a WSF, which would primarily be underground. As a result, it is unlikely that most pedestrian activities directly affect WSF. Pedestrian activities have similar temporary turbidity effects on WSF as described above for CRLF described above. If surveys have identified WSF egg clusters in a location that may be vulnerable to pedestrian disturbance, CDPR will install fencing and/or signage to keep visitors away from the area (WSF AMM 14). As a result, this the risk of disturbance effects on WSF is low. This trend is expected to continue in the future.

Dog Walking (CA-6). Effects on WSF from dog walking are described in HCP section 4.7.1.1.4. Dog walking could have similar disturbance effects on WSF as described above for SWPT. However, dogs will continue to be required to be on a leash no longer than 6 feet and remain under the control of an owner at all times, waste bags will continue to be provided in the HCP area, and CDPR will continue to remove garbage and litter from WSF habitat (WSF AMMs 15-17). As a result, the risk of this disturbance effect on WSF is low. This trend is expected to continue in the future.

Equestrian Recreation (CA-7). Effects on WSF from equestrian recreation are described in HCP section 4.7.1.1.5. Most equestrian-based activities occur in the northern portion of the HCP area and are considered to have little, if any, effect on WSF or its habitat since WSF tend to be found in habitats where equestrian activity does not occur and/or habitats that are less frequented by visitors. WSF would be most active in upland habitat during rain events when equestrians are least likely to be out. If horses cross creeks or enter lagoons that are suitable habitat for WSF, they could have similar turbidity effects as described above for CRLF. If surveys have identified WSF egg clusters in a location that may be vulnerable to equestrian disturbance, CDPR will install fencing and/or signage to keep riders away from the area. As a result, the risk of this disturbance effect on WSF is low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on WSF from holidays and special events are described in HCP sections 4.7.1.1.6 and 4.7.1.1.7. Effects on WSF from holidays and special events are similar to effects on SWPT described above. In accordance with the Oceano Dunes CDP (CDP-4-82-300-A5), Oceano Dunes SVRA does not allow additional vehicles to enter the HCP area on holidays or for special events. Special Event permits do not authorize activities to occur in areas that would otherwise be closed to visitors; therefore, no additional effects from non-motorized and motorized activities occur in WSF habitat that is typically off limits to visitors. In addition, all permits authorizing special events will include AMMs to reduce disturbance to WSF (WSF AMM 18). The risk of mortality, injury, or disturbance effects on WSF from holidays and special events is low. This trend is expected to continue in the future.

Natural Resources Management

SNPL and CLTE Management (CA-12a and CA-12b). Effects on WSF from Installation and Maintenance of SNPL and CLTE Fences (CA-12a) are described in HCP section 4.7.1.2.1. Heavy equipment is used extensively to install, maintain, and remove seasonal exclosure fencing. Fence installation involves minor leveling of sand surfaces, installation of poles and posts, trenching to allow the fence to be buried to the appropriate depth, and equipment to stretch the fence between posts. Fence maintenance uses heavy equipment to push sand along the entire eastern fenceline to address sand build-up or erosional areas around the fence. Seasonal fence removal involves heavy equipment to remove fences, posts, and allow access for vehicles to gather used fence materials. All of this heavy equipment activity causes vibrations and noise that

could affect dispersing or aestivating WSF. Most of the seasonal fences are installed in open sand areas where WSF are not likely to occur. However, some fences are close to vegetated areas (Pipeline, North Oso Flaco, 7.5 Revegetation Island) or areas with foredune development within the seasonal exclosure that could support dispersing or aestivating WSF. Heavy equipment could crush aestivating individuals or vibration from heavy equipment could force individuals out of aestivation, causing them to expend energy and making them vulnerable to predators or exposure to elements. AMMs have been developed to address some of the known threats to WSF including staff education (WSF AMM 7), timing of activities for low activity periods (WSF AMM 4-5 and 19), and having qualified biologists/Natural Resource staff survey work areas as needed periods (WSF AMM 4). As more focused monitoring occurs and more information about WSF status and distribution in the covered lands becomes available, CDPR may develop focused AMMs to address The effects from heavy equipment activity in areas where WSF could be dispersing or aestivating (WSF AMM 9). As a result, the risks of mortality, injury, or disturbance effects on WSF from installation and maintenance of SNPL and CLTE fences is low. This trend is expected to continue in the future.

Impacts on WSF from Habitat Manipulation in the Southern Exclosure (CA-12b) are described in EIR section 6.4.1.5.

Tidewater Goby and Salmonid Surveys (CA-13). The effects of tidewater goby and salmonid surveys on WSF are described in HCP section 4.7.1.2.3. The effects of tidewater goby and salmonid surveys on WSF are similar to effects on SWPT described above. Rarely would egg clusters or WSF individuals be present within Tidewater goby survey areas. If encountered unintentionally during seining or dipnetting, CDPR biologists can affect all WSF life stages (i.e., eggs, tadpoles, juveniles, and adults) when handling individuals and egg clusters during standard fisheries surveys in Arroyo Grande Creek or during other non-routine surveys in aquatic habitats where WSF may occur. However, CDPR implements WSF AMMs 20-27 to avoid or minimize effects on WSF. The risk of mortality, injury, or disturbance on WSF from these surveys is low. Overall, WSF AMMs 24-26 have a beneficial effect by reducing predation on WSF. This trend is expected to continue in the future.

Impacts of proposed tidewater goby salvage on WSF are addressed in EIR section 6.3.2.5.

Herpetological Monitoring and Management (CA-14). The effects of herpetological monitoring and management on WSF are described in HCP section 4.7.1.2.4. The effects of herpetological monitoring and management on WSF are similar to effects on SWPT described above. Most CRLF surveys result in minimal effects on WSF since most surveys for CRLF are eyeshine surveys conducted from the edge of the water bodies and/or kayak and only involve visually scanning for CRLF and/or egg masses. Dipnetting surveys are infrequently conducted in the HCP area. CDPR biologists or their contractors could affect all life stages of WSF (i.e., eggs, tadpoles, juveniles, and adults) when handling individuals and egg masses during CRLF dipnet surveys. To reduce effects associated with these surveys when they do occur, they will continue to be conducted by an approved biologist and will continue to be conducted in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF (WSF AMM 29). Thus, the risk of this mortality, injury, or disturbance effects on WSF is low. This trend is expected to continue in the future.

Impacts of proposed SWPT and WSF monitoring on WSF are addressed in EIR section 6.3.2.5.

Listed Plant Management (CA-15). The effects of listed plant management on WSF are described in HCP section 4.7.1.2.5. The effects of listed plant management on WSF in aquatic

habitat are similar to effects on SWPT described above. Activities associated with marsh sandwort, Gambel's watercress, and/or La Graciosa thistle are considered to have potential to affect WSF. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort, Gambel's watercress, and La Graciosa thistle in the HCP area are unknown to have affected WSF. Any future monitoring, propagation, and habitat enhancement activities for marsh sandwort and Gambel's watercress at Oso Flaco Lake and La Graciosa thistle in aquatic habitats has the potential to temporarily effect all life stages of WSF (i.e., eggs, tadpoles, juveniles, and adults). To minimize effects WSF associated with these activities, CDPR implements WSF AMMs 30-32. As a result, the risk of mortality, injury, and disturbance effects on WSF is low. Ultimately, listed plant habitat enhancement at Oso Flaco Lake and in other aquatic habitat where WSF may occur, benefits WSF by reducing invasive plants in the area and improving habitat in the HCP area for CRLF. This trend is expected to continue in the future.

Listed plant management can also occur in upland habitats where WSF burrows could be located. Activities like herbicide application could result in crushing burrows by foot traffic. Pulling weeds by hand could affect aestivating WSF because it involves ground disturbance. It is not known if past listed plant management activities have affected WSF. Listed plants occupy a relatively small portion of the covered lands, so any effects from listed plant management are limited to occupied or suitable habitats. If listed plant management activities in upland areas are found to affect WSF individuals or burrows, appropriate AMMs would be implemented including avoidance of occupied upland habitat, timing of activities to avoid sensitive life stages of WSF, or relocation of individuals to appropriate habitat outside the work area. As a result, the risk of mortality, injury, and disturbance effects on WSF is low. This trend is expected to continue in the future.

Impacts of proposed listed plant propagation and outplanting on WSF are addressed in EIR section 6.4.1.5.

Habitat Restoration Program (CA-16). The effects of the habitat restoration program on WSF are described in HCP section 4.6.1.2.6. Habitat restoration conducted in the HCP area to date is not known to have affected WSF and is part of the management program offsetting the incidental take to WSF from other covered activities; however, this management also has the potential to result in injury or mortality if a WSF is present within the work disturbance area. Restoration can directly affect all WSF life stages (i.e., eggs, tadpoles, juveniles, and adults), including by grading, ground disturbance with hand tools, vegetation removal and installation, and maintenance activities. In addition, activities can disturb WSF located near the work area and cause them to move from cover where they may be exposed to predation or desiccation. To minimize these possible effects, depending on the type of activities (e.g., ground disturbance), surveys for WSF are conducted, as needed, to ensure no WSF are present. If a WSF is observed, activities will be postponed until a qualified biologist/Natural Resource staff relocates the individual or determines the activities can continue with minimal risk to the safety of the WSF, which may include implementing additional AMMs such as exclusion fencing or biological monitoring. As a result, the risk of mortality, injury, and disturbance effects on WSF is low. This trend is expected to continue in the future.

Impacts of proposed dune slack restoration and CalVTP on WSF are addressed in EIR sections 6.3.2.5 and 6.4.1.5.

Invasive Plant and Animal Control (CA-17). The effects of invasive plant and animal control and water quality monitoring on WSF are described in HCP section 4.7.1.2.7. The effects of invasive

plant and animal control and water quality monitoring on WSF are similar to effects on SWPT described above. Invasive plant or animal control activities conducted in the HCP area to date are not known to have affected WSF. CDPR biologists can directly affect all life stages of WSF (i.e., eggs, tadpoles, juveniles, and adults) by disturbing occupied habitat during standard invasive animal and plant control efforts. However, CDPR implements all WSF AMMs as appropriate to avoid or minimize effects on WSF. As a result, the risk of mortality, injury, and disturbance effects on WSF is low. This trend is expected to continue in the future.

CDPR implements WSF AMM 33 as funding and staff resources allow, which includes invasive plant control and vegetation management in WSF habitat. Ultimately, invasive-pest plant and animal control in aquatic and/or upland habitat where WSF may occur benefits them by reducing invasive species in the HCP area and improving their habitat.

Impacts of proposed invasive aquatic predator control on WSF are addressed in EIR section 6.3.2.5.

Water Quality Monitoring (CA-19). The effects of water quality monitoring on WSF are described in HCP section 4.7.1.2.8. The effects of water quality monitoring on WSF are similar to effects on SWPT described above. Water quality monitoring in the HCP area to date is not known to have affected WSF. Installation of water quality monitoring equipment can temporarily affect WSF by disturbing individuals as workers enter occupied aquatic habitat. However, CDPR implements all WSF AMMs as appropriate to avoid or minimize effects on WSF. As a result, the risk of disturbance effects on WSF is low. Improvements to water quality that result from ongoing water quality monitoring and improvement projects in occupied habitat will ultimately benefit WSF by creating more suitable habitat within the HCP area. This trend is expected to continue in the future.

Park Maintenance

Campground Maintenance (CA-20). The effects of campground maintenance on WSF are described in HCP section 4.7.1.3.1. The effects of campground maintenance on WSF are similar to effects on SWPT described above. Maintenance vehicles at the campground can inadvertently strike a WSF that has left the creek or lagoon and entered the campground area; however, this has never been reported in the HCP area to date. Any WSF dispersing through the campground area is expected to occur during the night or under wet conditions; therefore, ground-disturbing maintenance activities will continue to be avoided during heavy precipitation. Maintenance activities that continue in all weather will continue to be limited to housekeeping-type routine maintenance activities such as repairs to hose bibs and changing light bulbs that are not expected to affect WSF. Effects from campground maintenance are avoided or minimized through on-going AMMs including the limited extent of mowing to only ensure safe public access, avoiding wetlands and aquatic habitats, pre-activity surveys, and postponing work if a WSF is observed (WSF AMMs 34-35). As a result, the risk of mortality, injury, or disturbance effects on WSF from campground maintenance is low. This trend is expected to continue in the future.

General Facilities Maintenance (CA-21). The effects of general facilities maintenance on WSF are described in HCP section 4.7.1.3.2. The effects of general facilities maintenance on WSF are similar to effects on SWPT described above. Facilities maintenance could include minor grading, routine vegetation control, pedestrian bridge maintenance, and other projects that could occur in or near WSF breeding habitat. This work is infrequent, would generally not occur at night during and immediately after rain, and WSF AMMs will be followed including pre-project surveys as needed, timing projects to avoid critical life stages, and relocation of individuals if found in work

areas. As a result, the risk of mortality, injury, or disturbance effects on WSF from campground maintenance activities is low. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal on WSF are addressed in EIR section 6.3.2.5.

Routine Riparian Maintenance (CA-26). The effects of routine riparian maintenance on WSF are described in HCP section 4.7.1.3.3. Riparian maintenance activities have similar mortality or injury, turbidity, and habitat effects on WSF as effects on SWPT described above, and similar effects related to the introduction of Bd as described above for CRLF. If WSF egg clusters, tadpoles, juveniles, or adults are present in the riparian maintenance area they can be directly affected by disturbance to habitat. Individuals may be disturbed by or caught in rakes or other hand equipment used to remove sediment, debris, or vegetation. Any egg clusters or tadpoles can also be disturbed or crushed by workers or equipment during culvert and spillway maintenance and the removal of emergent vegetation. Riparian maintenance activities can temporarily result in an increase in turbidity because the in-stream vegetation traps and holds sediments. Riparian maintenance activities can affect an annual maximum of approximately 0.3 acre of wetlands for culvert cleanout, debris removal, and emergent vegetation removal, and riparian corridor segments will continue to be subject to tree maintenance and invasive weed control as the need arises. CDPR biologists can facilitate the introduction of Bd, which is transported in water or mud, including in muddy footwear. However, WSF AMMs 36-44 will be implemented to avoid or minimize effects on WSF. As a result, the risk of mortality, injury, or disturbance to WSF is low. This trend is expected to continue in the future.

Perimeter and Vegetation Island Fencing (CA-27). The effects of perimeter and vegetation island fencing on WSF are described in HCP section 4.7.1.3.4. Thousands of linear feet of perimeter and vegetation island fencing exist throughout the open riding area designed to delineate areas open to OHVs and protect habitats from public activities. Throughout the year, these fences are repaired as sands shift. Often these repairs involve the use of heavy equipment to remove buried sections of fence and to place wooden peeler poles. This grading and equipment work has the potential to effect dune vegetation since the fences are often in close proximity to vegetation. At times, these fences can be near ephemeral breeding pools used by WSF or in areas where they aestivate. Effects could result from grading, noise, or vibration from heavy equipment, and work within the vegetated areas (e.g., removing old fence, etc.). Fence maintenance is an almost daily occurrence within the HCP area because of the dynamic nature of the dune system. Although fence maintenance generally does not occur at night, it may occur immediately after rain events when WSF are most likely to disperse, and maintenance that includes soil movement could disturb or crush a WSF in a burrow. WSF AMMs are followed including timing the project to minimize dispersal during and immediately after rain events and relocation of individuals if found in work areas. As a result, the risk of mortality, injury, or disturbance to WSF is low. This trend is expected to continue in the future.

Heavy Equipment Response (CA-29). The effects of heavy equipment response on WSF are described in HCP section 4.7.1.3.5. Heavy equipment is used throughout the park to maintain fences, maintain structures, remove hazards, transport materials, and numerous other tasks throughout the covered lands. Most activities are on bare sand where WSF are unlikely to be. However, some activities like fence maintenance around vegetated areas could affect areas where WSF are aestivating or dispersing. Heavy equipment could crush aestivating individuals or vibration from heavy equipment could force individuals out of aestivation, causing them to expend energy and making them vulnerable to predators or exposure to elements. WSF AMMs as implemented as needed including staff education, timing of activities for low activity periods,

and having qualified biologists/Natural Resource staff survey work areas as needed. As a result, the risk of mortality, injury, or disturbance to WSF is low. This trend is expected to continue in the future.

Minor Grading (CA-30). The effects of minor grading on WSF are described in HCP section 4.7.1.3.6. The specific location and timing of minor grading changes from year to year. The effects of grading to maintain seasonal exclosure fencing are included in under SNPL and CLTE Management (CA-12a) in the Natural Resources Management section above, and The effects of grading to maintain the perimeter and vegetation island fence are discussed under Perimeter and Vegetation Island Fencing (CA-27) above. Other minor grading generally occurs in upland, non-wetland habitat, which could crush or disturb aestivating WSF, potentially affecting individuals as described in the above referenced sections. WSF AMMs as implemented as needed including staff education, timing of activities for low activity periods, and having qualified biologists/Natural Resource staff survey work areas as needed. As a result, the risk of mortality, injury, or disturbance to WSF is low. This trend is expected to continue in the future.

Boardwalk and Other Pedestrian Maintenance (CA-31). The effects of boardwalk and other pedestrian maintenance on WSF are described in HCP section 4.7.1.3.7. Maintenance of trail and access corridors, including boardwalks, paths, and sand ramps, is completed on an as-needed basis. The frequency of this work mainly depends on visitor use and/or any weather-related damage. Vegetation intruding onto any footpaths may need to be trimmed at least once a year and is usually completed using hand tools (WSF AMM 45). Vegetation trimming does not involve plant removal or disturbance of soil or aquatic habitat where WSF may occur; thus, vegetation trimming is unlikely to affect WSF habitat or individuals. Any effects on WSF aquatic habitat during boardwalk maintenance will continue to be minor and temporary, and potential for direct effects on individuals will continue to be low. This trend is expected to continue in the future.

Visitor Services

Emergency Response (CA-33). The effects of emergency response on WSF are described in HCP section 4.7.1.4.1. The effects of emergency response on WSF are similar to The effects on SWPT described above, including temporary effects on habitat, vehicle strike, and turbidity. Because of the infrequent nature of these activities, the risk of mortality, injury, or disturbance effects on WSF is low. This trend is expected to continue in the future.

Access by Non-CDPR Vehicles (CA-34). The effects of access by non-CDPR vehicles on WSF are described in HCP section 4.7.1.4.2. The effects of access by non-CDPR vehicles on WSF are similar to The effects on SWPT described above, and effects from emergencies associated with non-CDPR vehicles are similar to those effects described for emergency response. Because of the infrequent nature of emergency response, the risk of mortality, injury, or disturbance effects on WSF is low. This trend is expected to continue in the future.

Pismo Beach Golf Course Operations (CA-37). The effects of Pismo Beach Golf Course operations on WSF are described in HCP section 4.7.1.4.3. The effects of Pismo Beach Golf Course operations on WSF are similar to The effects on SWPT described above. . If present in an adjacent ephemeral depression, WSF may disperse to Meadow Creek, Carpenter Creek, and/or the golf course ponds, especially during wet weather. If WSF disperse through the golf course to reach these locations, golf course operations and maintenance activities, such as golf cart traffic and mowers, can potentially strike WSF individuals and injure or kill them. Maintenance of water features in the golf course can potentially disturb all life stages (i.e., eggs, tadpoles,

juveniles, adults) of WSF during emergent vegetation trimming and removal or repair of bridges, although the species has never been observed within the golf course or its water features. Activities within the golf course ponds can affect WSF by temporarily stirring up sediment and increasing turbidity. CDPR implements WSF AMMs as needed to avoid or minimize effects on WSF. As a result, the risk of mortality, injury, or disturbance effects on WSF is low. This trend is expected to continue in the future.

Other Activities

Vehicle Crossing of Creeks (CA-40). The effects of vehicle crossing of creeks on WSF are described in HCP section 4.7.1.5.1. The effects of vehicle crossing of creeks on WSF are similar to The effects on SWPT described above. WSF 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; therefore, no effects are likely to occur in these locations. WSF could occur in Carpenter Creek and might be affected by vehicles crossing the creek. WSF can be inadvertently struck by a vehicle crossing the creek. Vehicles crossing aquatic WSF habitats also affect WSF by temporarily stirring up sediment and increasing turbidity. However, vehicle operators will continue to be encouraged to cross in areas with low or no flow, and all vehicles will continue to be required to travel at a speed of 15 mph or less. CDPR will also temporarily close vehicle crossings if they pose a risk and prevent vehicle activity in ponded areas (WSF AMM 46-47). As a result, the risk of mortality, injury, or disturbance effects on WSF is low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). The effects of dust control activities on WSF are described in HCP section 4.7.1.5.4. Existing dust control activities including maintenance of dust control measures and temporary monitoring sites and do not result in effects on WSF aquatic habitat. However, dust control maintenance activities can temporarily disturb aestivating or dispersing CRLF. It is unlikely, but possible, that WSF 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. To avoid these effects, CDPR implements AMMs for WSF, as appropriate, including conducting pre-activity surveys as necessary and delaying activities until the individual moves from the work area or appropriate AMMs are in place (e.g., relocation, exclusion fencing, biological monitoring). Effects on WSF from dust control activities have not been observed and are not known. As a result, the risk of mortality, injury, or disturbance effects on WSF are low. This trend is expected to continue in the future.

In addition, vegetation planted for dust control activities provides necessary cover for WSF if they are dispersing through the area and benefits WSF overall. This trend is expected to continue in the future.

Impacts of proposed new dust control activities on WSF are addressed in EIR section 6.4.1.5.

Cultural Resources Management (CA-45). The effects of cultural resources management on WSF are described in HCP section 4.7.1.5.5. To date, cultural resource management has not resulted in effects on WSF. Cultural resources management is unlikely to occur when WSF are active on the surface (i.e., in wet weather primarily at night). Managing a cultural site could disturb, injure, or kill a WSF in its burrow. CDPR implements WSF AMMs, as needed, including conducting pre-activity surveys as necessary and postponing activities until the qualified biologist/Natural Resource staff determines the activities can continue with minimal risk to the safety of the WSF, which may include implementing AMMs (e.g., relocation,

exclusion fencing, biological monitoring). As a result, the risk of mortality, injury, or disturbance effects on WSF are low. This trend is expected to continue in the future.

CDPR Agricultural Land Management (CA-46). The effects of CDPR agricultural land management on WSF are described in HCP section 4.7.1.5.5. Two ditches associated with agricultural lands contain runoff from the agricultural lands and flow to Oso Flaco Lake. WSF have not been found within the agricultural ditches; however, WSF adults could be present in these areas in the future and activities could disturb or injure/kill an individual (e.g., when equipment is used to remove sediment, debris, or vegetation). CDPR will continue to implement AMMs, including conducting activities during low flow periods (if feasible), having a qualified biologist/Natural Resource staff conduct a focused survey of the work area (subject to their discretion), and having them present (if necessary), to reduce the potential to disturb, injure, or kill WSF. As a result, the risk of mortality, injury, or disturbance effects on WSF are low. This trend is expected to continue in the future.

Use of Pesticides (CA-51). The effects of use of pesticides on WSF are described in HCP section 4.7.1.5.9. CDPR used vector control and terrestrial and aquatic herbicides (together "pesticides") broadly in the HCP area over the past 15 years. Licensed applicators apply pesticides with backpack sprayers, vehicle-mounted sprayers, and helicopter booms. The APAP guides the application of pesticides through an Integrated Pest Management (IPM) program. Aquatic applications are applied for mosquito control, while semi-aquatic or terrestrial applications include strategic treatment of veldt grass, Russian wheat grass, European beachgrass, and giant reed present along riparian corridors, lagoons, and wetlands in the HCP area.

Effects from pesticide exposure on WSF are not well documented. The 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 WSF mortality is unlikely from pesticide use in aquatic habitats. In addition, application of these pesticides takes place when WSF are less likely to be present in aquatic habitats. Nevertheless, pesticides used in the HCP area may cause mortality if WSF ingests a lethal level of pesticide directly or through other pathways. Use of pesticides may also cause disturbance effects by changing food availability and habitat and water quality or be affected by human activity of the application.

Broad-scale insecticide use to reduce mosquito larvae in wetland areas that contain WSF 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 for dispersing individuals. However, no relevant information was found detailing either of these potential threats. Because of the uncertainty in the risk of pesticide effects on non-target species, a rigorous AMM project was established avoid and minimize the potential deleterious effects including the implementation of APAP, pre-application clearance surveys near aquatic habitats, assessment of environmental conditions prior to application, assessment of needs and methodology prior to application, spill prevention plan, and qualification standards, among others (WSF AMMs 55-64). Due to the uncertainty in the effect of pesticide use in upland and aquatic habitats on WSF, the risk of mortality/injury or effects on WSF from pesticide use is moderate.

Based on years of survey data for covered species and implementation of specific AMMs for pesticide use, pesticide use within the HCP area is expected to benefit CRLF by preventing

invasive plants from taking over CRLF habitat or providing hiding places for predators. This trend is expected to continue in the future.

Tidewater Goby

A total of 45 acres was mapped as suitable tidewater goby habitat in the HCP area. Tidewater goby is adapted to coastal lagoons, marshes, the uppermost brackish zone of larger estuaries, and lower-stream reaches where the water is fairly still but not stagnant. Within the HCP area, tidewater goby is known to occur in Pismo Creek Lagoon and Arroyo Grande Creek and Estuary. Tidewater goby has also been observed in Carpenter Creek, which can connect to the Pismo Creek Lagoon, and in Lower Meadow Creek, which drains into Arroyo Grande Creek and Estuary from Oceano Lagoon. Tidewater goby has also occasionally been documented in Lower Oso Flaco Creek which is part of the Oso Flaco watershed that is designated as USFWS critical habitat. Populations may fluctuate annually; surveys conducted in Arroyo Creek over the past decade 2013-2023 have documented maximum counts that ranged between 100's and 100,000's of individuals.

Covered activities that have no risk of affecting tidewater goby or their habitat are dismissed from further discussion. Existing covered activities with no effects on tidewater goby include Camping (CA-2), Bicycling and Golfing (CA-4), Fishing (CA-5), Boating/Surfing (CA-8), Aerial/Wind-Driven Activities (CA-9), SNPL and CLTE Management (CA-12a and 12b), Habitat Restoration Program (CA-16), WHPP Implementation (CA-18), Campground Maintenance (CA-20), General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance (CA-28), Boardwalk/other Pedestrian Access Maintenance (CA-31), ASI Courses (CA-35), Beach Concessions (CA-36), Pismo State Beach Golf Course Operations (CA-37), Natural History and Interpretation Programs (CA-39), Dust Control Activities (CA-44), Cultural Resources Management (CA-45), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Existing covered activity Tidewater Goby and Salmonid Survey (CA-13), which has a high risk of affecting tidewater goby (but has overall beneficial effects), and other existing covered activities with low to moderate risk of affecting SNPL are described below. These effects are all part of the baseline environmental conditions. Tidewater goby is expected to benefit from the existing covered activities in the HCP's conservation program by controlling invasive species that may compete with or predate tidewater goby, improving or enhancing suitable habitat, and collecting information on tidewater goby that may aid in conservation. Covered activities that may benefit tidewater goby include Tidewater Goby and Salmonid Survey (CA-13), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Water Quality and Monitoring (CA-19), Trash Control (CA-22), and Use of Pesticides (CA-51).

See Table D-1 for the risk level of existing covered activities affecting tidewater goby, as well as existing covered activities with beneficial effects on tidewater goby.

Park Visitor Activities

Motorized Recreation (CA-1). Effects on tidewater goby from motorized recreation are described in HCP section 4.8.1.1.1. For the specific effects of vehicles crossing Arroyo Grande Creek, see Other Activities section below. No other effects on tidewater goby from public motorized recreation are known to occur. CDPR implements tidewater goby AMMs 5-9 to avoid or minimize effects on tidewater goby from motor vehicles crossing Arroyo Grande Creek. As a result, the risk of mortality, injury, or disturbance effects on tidewater goby are low. This trend is expected to continue in the future.

Pedestrian Activities (CA-3). Effects on tidewater goby from pedestrian activities are described in HCP section 4.8.1.1.2. Pedestrian activities have not been documented affecting tidewater goby; however, any effects are difficult to observe, and some effects can occur. Pedestrian activities will continue to have mostly minor effects on tidewater goby, such as a temporary increase in turbidity when crossing suitable tidewater goby habitat. Even in areas of high visitor use, pedestrians are considered to pose little to no threat to tidewater goby and/or its habitat. However, pedestrian activities could affect tidewater goby in limited circumstances as described below.

Visitors wading in the Pismo Creek Lagoon and Arroyo Grande Creek and Estuary can trample or injure tidewater goby or collapse tidewater goby breeding burrows. Visitors wading and/or swimming in Pismo Creek Lagoon and Arroyo Grande Creek and Estuary can also disturb habitat, injure/kill fish, or make individuals more susceptible to predation by startling them from protected areas and/or making them more visible to predators. However, CDPR implements tidewater goby AMMs 10-12 to avoid or minimize effects on tidewater goby from pedestrian activities. As a result, the risk of mortality, injury, or disturbance effects on tidewater goby is low. This trend is expected to continue in the future.

In large enough amounts, loss of bank and in-stream vegetation due to visitors building small rock dams and rock crossings or collecting driftwood for campfires can lead to an increase in water turbidity and a decrease in water quality. In addition, pedestrians crossing creeks can stir up sediments and temporarily increase turbidity. In large amounts, temporarily suspended sediment can adversely affect aquatic species, including tidewater goby. Increased turbidity can reduce visibility for tidewater goby, which could result in reduced foraging success, difficulty escaping from predators, and reduced reproductive success. Increased sediment during the tidewater goby breeding season can cover coarse sand and/or fill the interstitial spaces between the sands, limiting oxygen to tidewater goby eggs. Layers of silt on top of coarse sand can also make the substrate unavailable for spawning. However, sediment stirred up during activities, including creek crossings, rock dam construction, and driftwood collection is typically minimal, localized, and temporary and does not affect tidewater goby or tidewater goby habitat in the long term. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

Dog Walking (CA-6). Effects on tidewater goby from dog walking are described in HCP section 4.8.1.1.3. Like pedestrians, dogs have not been documented affecting tidewater goby, but any effects are difficult to observe and can occur. In general, dogs wading and swimming in estuaries and creeks occupied by tidewater goby can affect water quality by depositing waste, trampling vegetation, and temporarily increasing turbidity, thereby temporarily affecting spawning habitat, foraging, ability to escape from predators, and reproductive success. However, dogs will continue to be required to be on a leash no longer than 6 feet and remain under the control of an

owner at all times, waste bags will continue to be provided in the HCP area, and CDPR will continue to remove garbage and litter from tidewater goby habitat (tidewater goby AMMs 13-15). As a result, the risk of this disturbance effect on tidewater goby is low. This trend is expected to continue in the future.

Equestrian Recreation (CA-7). Effects on tidewater goby from equestrian recreation are described in HCP section 4.8.1.1.4. Horses also have similar effects on tidewater goby as pedestrians and dogs wading and swimming in estuaries occupied by tidewater goby (see sections above). Equestrians, however, generally cross Arroyo Grande Creek upstream of tidewater goby habitat; therefore, equestrian activities typically avoid potential tidewater goby habitat. As a result, the risk of effects on tidewater goby from equestrian recreation is low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on tidewater goby from holidays and special events are described in HCP sections 4.8.1.1.5 and 4.8.1.1.6. Effects on tidewater goby from holidays and special events are similar to effects on SWPT described above. In accordance with the Oceano Dunes CDP (CDP-4-82-300-A5), Oceano Dunes SVRA does not allow additional vehicles to enter the HCP area on holidays or for special events. Special Event permits do not authorize activities to occur in areas that would otherwise be closed to visitors; therefore, no additional effects from non-motorized and motorized activities occur in tidewater goby habitat that is typically off limits to visitors. In addition, during anticipated high visitor use periods CDPT staff will continue to provide frequent observations of the vehicle/pedestrian crossing of creeks, and areas all permits authorizing special events will include AMMs to reduce disturbance to tidewater goby (tidewater goby AMMs 16-17). The risk of mortality, injury, or disturbance effects on tidewater goby from holidays and special events is low. This trend is expected to continue in the future.

Natural Resources Management

Tidewater Goby and Salmonid Surveys (CA-13). Effects on tidewater goby from tidewater goby and salmonid surveys are described in HCP section 4.8.1.2.1. Only CDPR biologists and/or contractors with a 10(a)(1)(A) Recovery Permit for tidewater goby and/or USFWS/NOAA Fisheries approval conduct tidewater goby and salmonid surveys. Qualified and permitted biologists/Natural Resource staff or contractors can capture all life stages of tidewater goby during seining associated with regular fisheries monitoring. In the HCP area since 2005, between zero and tens of thousands of tidewater goby have been captured during surveys. Tidewater goby can also be injured or even killed during seining associated with monitoring fisheries populations, although this is rare and has only been documented on a few occasions with a maximum of three individuals being injured or killed. 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. CDPR implements tidewater goby AMMs 18-30 to avoid or minimize effects on tidewater goby, including, but not limited to, having a USFWS- and/or NOAA-fisheries approved biologist conduct the surveys, conducting the surveys in accordance with the guidelines described in the Recovery Plan for tidewater goby (USFWS 2005), using the smallest and lightest seine nets practicable, immediately releasing any tidewater goby that appears stressed, and limiting dipnetting and seining to no more than 40 percent of the survey area (or 20 percent during the breeding season). In addition, no electrofishing is allowed in tidewater goby habitat to avoid injuring or killing a tidewater goby during electrofishing activities. In the rare cases when surveying biologists encounter a tidewater goby, they cease electrofishing and move upstream to a point presumably free from their occupancy. However,

the risk of mortality or injury effects on tidewater goby from the surveys remains high. This trend is expected to continue in the future.

Surveys can also disturb substrates including tidewater goby burrows, stir up sediments, and temporarily increase turbidity. Increased turbidity can reduce visibility for tidewater goby, which could result in reduced foraging success, difficulty escaping from predators, and reduced reproductive success if this occurs in the breeding season. However, USFWS Recovery Permit terms and conditions limit the extent of substrate disturbance by limiting the area seined during each survey event, thus minimizing The effects of survey activities. Sediment stirred up during activities is minimal, localized, and temporary and does not affect tidewater goby or its habitat in the long term. As a result, this effect on tidewater goby is low. This trend is expected to continue in the future.

Ultimately, tidewater goby surveys benefit tidewater goby by providing information necessary to contribute to conservation of the species.

Impacts of proposed tidewater goby salvage on tidewater goby are addressed in EIR section 6.3.2.6.

Herpetological Monitoring and Management (CA-14). Effects on tidewater goby from herpetological monitoring and management are described in HCP section 4.8.1.2.2. When possible and appropriate, eyeshine and visual encounter surveys will continue to be conducted within tidewater goby habitat in a manner that minimizes disturbance to tidewater goby. Such surveys have little (if any) effects on tidewater goby since they are conducted out of water or from a kayak.

When dipnet surveys are necessary to survey for herpetological species, tidewater goby could be captured in dipnets if the surveys occur in tidewater goby habitat. Tidewater goby egg burrows can also be disturbed or crushed if the dipnet survey is conducted during the tidewater goby breeding season. In addition, captured tidewater goby individuals could be injured or even killed when caught in the dipnet. However, dipnet surveys will continue to be conducted in a manner that minimizes disturbance to aquatic habitat, and any captured fish will be released immediately at the capture site. As a result, the risk of mortality or injury effects on tidewater goby from the surveys is low. This trend is expected to continue in the future.

Dipnet surveys could also stir up sediments and temporarily increase turbidity since surveyors must enter the water on foot to conduct the survey. Increased turbidity can reduce visibility for tidewater goby, resulting in reduced foraging success, difficulty escaping from predators, and reduced reproductive success if the survey occurs during the breeding season. However, sediment stirred up during activities is minimal, localized, and temporary, and does not affect tidewater goby or its habitat in the long term. As a result, this effect on tidewater goby is low. This trend is expected to continue in the future.

Impacts of proposed SWPT and WSF monitoring on tidewater goby are addressed in EIR section 6.3.2.6.

Listed Plant Management (CA-15). Effects on tidewater goby from listed plant management are described in HCP section 4.8.1.2.3. Listed plant monitoring, propagation, and habitat enhancement for marsh sandwort and Gambel's watercress in the HCP area to date are not known to have affected tidewater goby. Monitoring of marsh sandwort and Gambel's watercress is not expected to affect tidewater goby since tidewater goby have not been found in Oso Flaco Lake where marsh sandwort and Gambel's watercress are found.

Activities within aquatic habitats affect tidewater goby by temporarily stirring up sediment and increasing turbidity. However, caution is taken to minimize disturbance to sediment and any sediment stirred up during listed plant management activities is minimal, localized, and temporary. In addition, CDPR implements tidewater goby AMMs 33-34 to avoid or minimize turbidity during listed plant management. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

Ultimately, listed plant habitat enhancement at Oso Flaco Lake and in other aquatic habitat where tidewater goby may occur, benefits tidewater goby by reducing invasive plants in the area and improving habitat in the HCP area.

Impacts of proposed listed plant propagation and outplanting on tidewater goby are addressed in EIR section 6.4.1.6.

Invasive Plant and Animal Control (CA-17). Effects on tidewater goby from invasive plant and animal control are described in HCP section 4.8.1.2.4. Invasive plant and animal control activities may require CDPR Natural Resource staff to remove pest plants and animals in tidewater goby habitat. CDPR biologists can temporarily disturb tidewater goby individuals and habitat during invasive animal and plant control efforts. In addition, CDPR biologists can inadvertently step on tidewater goby burrows or injure tidewater goby individuals if these activities occur during the breeding season. CDPR implements tidewater goby AMMs 35-38 to avoid or minimize effects on tidewater goby. For example, activities within tidewater goby habitat will continue to be avoided, if possible. If it is not possible to avoid activities in tidewater goby habitat and activities require that work be conducted in the water, only one person will enter the water to ensure disturbance to tidewater goby and its habitat is minimized. As a result, the risk of mortality or injury effects on tidewater goby is low. This trend is expected to continue in the future.

Invasive plant and animal control activities can also indirectly affect tidewater goby by temporarily stirring up sediment and increasing turbidity, as described previously. Sediment stirred up during activities is minimal, localized, and temporary and does not affect tidewater goby or its habitat in the long term. In addition, to prevent erosion and sedimentation in tidewater goby habitat, vegetation removal and bank disturbance associated with invasive plant control will continue to be kept to a minimum. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

CDPR implements tidewater goby AMM 38 as funding and staff resources allow, which includes invasive plant control and vegetation management in WSF habitat. Ultimately, invasive-pest plant and animal control in aquatic and/or upland habitat where WSF may occur benefits them by reducing invasive species in the HCP area and improving their habitat.

Impacts of proposed invasive aquatic predator control on tidewater goby are addressed in EIR section 6.3.2.6.

Water Quality Monitoring (CA-19). Effects on tidewater goby from water quality monitoring are described in HCP section 4.8.1.2.5. Installation of water quality monitoring equipment (e.g., gauges, telemetry) can temporarily affect tidewater goby by disturbing individuals during installation, removal, operation, and maintenance of instruments. Monthly or bi-monthly grab samples may also be collected in Oso Flaco, Pismo, and Arroyo Grande estuaries. The chances of a tidewater goby being inadvertently collected by a water (grab) sample is very low. In addition, these activities will continue to be monitored by qualified biologists/Natural Resource staff, so effects will continue to be localized, temporary, and very minor. As a result, the risk of

mortality or injury effects on tidewater goby is low. This trend is expected to continue in the future.

Water quality monitoring activities can also indirectly affect tidewater goby by temporarily stirring up sediment and increasing turbidity, as described previously. Sediment stirred up during activities is minimal, localized, and temporary and does not affect tidewater goby or its habitat in the long term. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

CDPR implements tidewater goby AMMs 39-40 to ensure adequate water flow in tidewater goby habitat. Improvements to water quality that result from ongoing water quality monitoring and improvement projects in occupied habitat will ultimately benefit tidewater goby by creating more suitable habitat within the HCP area.

Park Maintenance

Routine Riparian Maintenance (CA-26). Effects on tidewater goby from routine riparian maintenance are described in HCP section 4.8.1.3.1. Riparian maintenance activities that can affect tidewater goby include culvert maintenance and emergent vegetation removal when these activities are located near or within occupied habitat. Culvert maintenance occurs in Carpenter Creek, where tidewater goby was first recorded in 2012. Tidewater goby has the potential to persist in the creek in the future. As a result, riparian maintenance activities in Carpenter Creek can affect tidewater goby. However, as Carpenter Creek dries, tidewater goby is found in pools, which often form at a distance from the culverts and vegetation that are affected by the maintenance activities; therefore, direct effects from culvert maintenance and vegetation removal do not occur when the water pools. Tidewater goby individuals, however, can be injured or killed, and egg burrows can be crushed during these activities if the water encroaches on the riparian maintenance work area and tidewater goby is present near the culverts or vegetation. To minimize these effects, CDPR implements tidewater goby AMMs 41-49. For example, maintenance activities will continue to be conducted during the dry season or when the creek is not actively flowing or at its lowest flow, if possible (AMM 41). A pre-activity survey will also continue to be conducted prior to performing activities in tidewater goby habitat (AMMs 42 and 44). As a result, these effects will continue to be minimized. As a result, the risk of mortality or injury effects on tidewater goby is low. This trend is expected to continue in the future.

Culvert maintenance occasionally requires a backhoe bucket to enter the water. The bucket can stir up sediments and temporarily affect downstream water quality by increasing turbidity. In addition, removing vegetation around the culverts can stir up sediments and increase turbidity. Increased turbidity can reduce visibility for tidewater goby, which could result in reduced foraging success, difficulty escaping from predators, and reduced reproductive success if this occurs during the breeding season. However, sediment stirred up during activities is minimal, localized, and temporary and does not affect tidewater goby or its habitat in the long term. In addition, to prevent erosion and sedimentation in tidewater goby habitat, vegetation removal and bank disturbance associated with riparian maintenance activities will continue to be kept to a minimum (tidewater goby AMM 46). As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

Riparian maintenance activities can affect tidewater goby habitat if an equipment leak or spill occurs and enters the water. Refueling and maintenance of equipment will continue to occur at least 60 feet from riparian habitat and appropriate spill containment will continue to be kept on site at all times so any spills can be cleaned immediately (tidewater goby AMMs 47-48). As a

result, the risk of effects on water quality from riparian maintenance activities is low. This trend is expected to continue in the future.

Heavy Equipment Response (CA-29). Effects on tidewater goby from heavy equipment response are described in HCP section 4.8.1.3.2. Heavy equipment (e.g., loader, tractor) is utilized throughout the HCP area, potentially within ponded areas, such as for recovering stranded vehicles or deceased marine life. Tidewater goby could be injured or killed during these activities, and egg burrows could be crushed if the activities occurred in the breeding season. To reduce the potential to injure or kill tidewater goby or crush egg burrows, CDPR will minimize placing heavy equipment and personnel in ponded areas (tidewater goby AMM 50), although it may not be possible in all scenarios. The potential thus exists for tidewater goby to be directly affected. The effects from turbidity and potential equipment leaks would be similar to Minor Grading (CA-30), described below. The risk of mortality, injury, or disturbance effects on tidewater goby is low. This trend is expected to continue in the future.

Minor Grading (CA-30). Effects on tidewater goby from minor grading are described in HCP section 4.8.1.3.3. Most grading activities will continue to occur on land and will not occur in or near tidewater goby habitat; therefore, these activities do not affect tidewater goby. In the future, if grading activities occurred in or near tidewater goby habitat, tidewater goby could be injured or killed during these activities and egg burrows could be crushed if the activities occurred in the breeding season. To reduce the potential to injure or kill tidewater goby or crush egg burrows, CDPR will continue to ensure that no heavy equipment is placed in the water body during minor grading (tidewater goby AMM 51). As a result, the risk of mortality or injury effects on tidewater goby is low. This trend is expected to continue in the future.

Any personnel that enter the water during minor grading can stir up sediments, temporarily affecting downstream water quality by increasing turbidity. Increased turbidity can reduce visibility for tidewater goby, resulting in reduced foraging success, difficulty escaping from predators, and reduced reproductive success if the activity occurs during the breeding season. However, sediment stirred up during activities is minimal, localized, and temporary and will not affect tidewater goby or its habitat in the long term. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

Minor grading activities can affect tidewater goby habitat if an equipment leak or spill occurs nearby tidewater goby habitat and enters the water. Refueling and maintenance of equipment will continue to occur at least 60 feet from riparian habitat and appropriate spill containment will continue to be kept on site so any spills can be cleaned immediately (tidewater goby AMMs 47-48). As a result, the risk of effects on water quality from riparian maintenance activities is low. This trend is expected to continue in the future.

Visitor Services

Ranger, Lifeguard, Park Aide Patrols (CA-32). Effects on tidewater goby from ranger, lifeguard, and park aide patrols are described in HCP section 4.8.1.4.1. For the specific effects on tidewater goby from patrols crossing Pismo/Carpenter and Arroyo Grande Creeks, see Vehicle Crossing of Creeks (CA-40) in the Other Activities section below. No other effects on tidewater goby occur from these patrols.

Emergency Response (CA-33). Effects on tidewater goby from emergency response are described in HCP section 4.8.1.4.2. From time to time, law enforcement and/or medical aid must respond to emergencies. When this occurs, some trampling of riparian vegetation may occur or a creek (e.g., Carpenter Creek) may be crossed without the use of a bridge or hardened bottom.

Effects on tidewater goby from emergency activities are not known; though highly unlikely, eggs, juveniles, or adults could be crushed, injured, or killed by such an incident. Potential damage to habitat is likely minor and temporary since any effects would occur from a vehicle driving through quickly or from foot traffic associated with the emergency. The risk of mortality or injury effects on tidewater goby is low. This trend is expected to continue in the future.

Emergency vehicles crossing creeks or emergency personnel entering water bodies occupied by tidewater goby can stir up sediments, temporarily affecting downstream water quality by increasing turbidity. Increased turbidity can reduce visibility for tidewater goby, resulting in reduced foraging success, difficulty escaping from predators, and reduced reproductive success if the activity occurs during the breeding season. However, sediment stirred up during activities is minimal, localized, and temporary and will not affect tidewater goby or its habitat in the long term. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

Access by Non-CDPR Vehicles (CA-34). Effects on tidewater goby from access by non-CDPR vehicles are described in HCP section 4.8.1.4.3. Non-emergency non-CDPR vehicles and/or staff generally access areas open to public vehicles along the beach and adjacent shoreline, following all applicable speed limits. Such vehicles do not enter the Exclosures or Oso Flaco area where vehicles are prohibited. Given the focused purpose such staff have when entering the HCP area, effects from their vehicles are likely less than those of motorized recreation. Effects from emergencies associated with non-CDPR vehicles, however, are similar to those effects described for CA-33 above, and CDPR is not always able to train non-CDPR responders. Therefore, given the travel speeds sometimes necessary for emergency response, some mortality or other harm may not be avoided. Because of the infrequent nature of emergency response, the risk of mortality, injury, or disturbance effects on tidewater goby is low. This trend is expected to continue in the future.

Other Activities

Vehicle Crossing of Creeks (CA-40). Effects on tidewater goby vehicle crossing of creeks are described in HCP section 4.8.1.5.1. Under normal conditions (i.e., dry weather or low-volume storm events), routine vehicle traffic crossing at Arroyo Grande Creek or Oso Flaco Creek likely has no effects on tidewater goby or its habitat because vehicles are prohibited from crossing the creek in any manner other than crossing as close to the ocean waterline as possible. In general, fish typically do not use the surf-line outlet reach. Ponded areas of Arroyo Grande Creek and Estuary, where tidewater goby does occur, are posted as closed to vehicles, thus protecting tidewater goby from vehicles (tidewater goby AMMs 52-53). Therefore, vehicle crossing of the creeks at the waterline is unlikely to affect tidewater goby individuals.

Under certain conditions, especially in the winter, the extent of the ponded areas in Arroyo Grande Creek and Estuary 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. Under such circumstances, it is possible an individual tidewater goby could be disturbed or even injured or killed by vehicles driven by visitors across Arroyo Grande Creek. However, because of the transitory nature of the ponding in these beach areas, and because such ponding is typically induced by high-water events (which usually occur outside the breeding season), it is

unlikely that breeding burrows occur in the area. The risk of mortality, injury, or disturbance effects on tidewater goby is moderate. This trend is expected to continue in the future.

CDPR staff and/or contractor vehicles do not cross through ponded areas at the mouth of Pismo Creek. In the past, patrol vehicles infrequently drove through the Pismo/Carpenter Creek confluence when traveling to the North Beach Campground. This activity could have destroyed breeding burrows and/or killed/injured individual tidewater goby in that area. However, CDPR staff and/or contractors will continue to avoid crossing through ponded water where possible. If ponded water cannot be avoided, CDPR staff and/or contractors will attempt to cross at the shallowest area possible to minimize effects on tidewater goby. The risk of effects on tidewater goby from crossing the Pismo/Carpenter Creek confluence is moderate. This trend is expected to continue in the future.

Crossing creeks could stir up sediment, which could affect downstream reaches of creeks by increasing turbidity. However, the quality of habitat in the lowest reaches (i.e., sand banks, sandy channel) of the creeks does not appear to be significantly altered by vehicle traffic, owing largely to the naturally transitory and dynamic nature of sandy features near the surf line and through the beach (Rischbieter 2006). In addition, any effects from increased turbidity are minor, localized, and temporary and do not affect tidewater goby in the long term. As a result, the risk of this effect on tidewater goby is low. This trend is expected to continue in the future.

Use of Pesticide (CA-51). Pesticides used the HCP area can cause mortality if tidewater goby ingest a toxic pesticide directly or through their food source. Pesticides can also cause disturbance 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 affect tidewater goby. 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, they are not thought to be toxic to tidewater goby. Tidewater goby AMMs 56-66 are also implemented to reduce the risk of mortality, injury, disturbance, or habitat effects on tidewater goby. As a result, the risk of these effects on tidewater goby from pesticide application is low. This trend is expected to continue in the future.

Based on years of survey data for covered species and implementation of specific avoidance and minimization measures for pesticide use, pesticide use within the HCP area is expected to benefit tidewater goby by preventing aquatic invasive plants from reducing tidewater goby habitat quality.

Tidewater Goby Critical Habitat

Critical habitat for tidewater goby is designated within the HCP area in Pismo Creek and Oso Flaco Lake. Activities currently occurring in the HCP area do not permanently modify or reduce the quality of tidewater goby critical habitat. All of the baseline activities were being conducted during the time the USFWS designated tidewater goby critical habitat.

Coast (California) Horned Lizard and Northern California Legless Lizard

Coast horned lizard and Northern California legless lizard may occur throughout the HCP area, although coast horned lizard is thought to be very uncommon. Habitat exists for both species throughout the HCP area; coast horned lizard are most likely to occur within western interface of sand and silver dune lupine – mock heather scrub habitat. Northern California legless lizard occur in scrub, sandy washes, and riparian habitats with moist, sandy soils and were documented in vegetation islands, Oceano Campground, at Oso Flaco Lake, Little Oso Flaco Lake, Jack Lake, and near Lettuce Lake. Northern California legless lizard was observed in the designated

campgrounds in the past, although this is considered to be an uncommon occurrence. Other similar habitats near freshwater within the HCP area may also be used by this species. 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.

Covered activities that have no risk of affecting coast horned lizard and Northern California legless lizard are dismissed from further discussion. Existing covered activities with no effects on coast horned lizard and Northern California legless lizard include Bicycling and Golfing (CA-4), Fishing (CA-5), Boating/Surfing (CA-8), Aerial/Wind-Driven Activities (CA-9), SNPL and CLTE Management (CA-12a and 12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Water Quality and Monitoring (CA-19), Campground Maintenance (CA-20), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Pismo State Beach Golf Course Operations, ASI Courses (CA-37), Natural History and Interpretation Programs (CA-39), Motorized Vehicles Crossing of Creeks (CA-40), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

No existing covered activities have been identified that would have a high risk of effect on coast horned lizard or Northern California legless lizard. Existing covered activities with low to moderate risk of affecting coast horned lizard or Northern California legless lizard are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit coast horned lizard and Northern California legless lizard include Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Trash Control (CA-22), Dust Control Activities (CA-44), and Use of Pesticides (CA-51), which all result in improving habitat by planting native plants and removing invasive plants, controlling predators, and gathering useful information on these species.

See Table D-1 for the risk level of existing covered activities affecting coast horned lizard or Northern California legless lizard, as well as existing covered activities with beneficial effects on these species.

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), Dog Walking (CA-6), Equestrian Recreation (CA-7), Holidays (CA-10) and Special Events (CA-11). Park visitor activities occur on an on-going basis throughout the HCP area and vary in their likelihood to affect these species and magnitude of effect. Motorized recreation is relatively more dispersed throughout the HCP area than camping which is localized and has the potential for a greater local effect than dispersed activities including pedestrian activities and dog walking. Although low, effects on coast horned lizard and Northern California legless lizard exist from park visitor activities. Holidays and special events increase the magnitude of risk due to increased vehicle traffic and human activity.

Direct effects from park visitor activities include the crushing and trampling of individuals that may result in mortality or injury during all life stages. Beaches, dunes, and campgrounds are infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover. Although unlikely, if coast horned lizard and Northern California legless lizard disperse through these areas, they can be killed, injured, or disturbed by vehicles, people, dogs, or horses. Increased risk of effects occurs within vegetation islands and other areas

where coast horned lizards and Northern California legless lizards may occur. Effects can include lizards being crushed, burrow collapse, and behavioral changes due to disturbance. Vegetated areas most suitable for these species, such as vegetation islands, South Oso Flaco, and the Pismo Dunes Natural Preserve, are closed to motorized recreation. Some vegetated areas such as South Oso Flaco are also closed to dogs and/or horses, and the Phillips 66 leasehold is closed to all recreation. In addition, measures to avoid and minimize direct effects on coast horned lizard and Northern California legless lizard are implemented through the conservation program for HCP covered species that occupy similar habitat or exposed to the similar risks of direct effects from park visitor activities, and include maintaining and enforcing reduced speed limits (SNPL AMM 4, SNPL AMM 24, CLTE AMM 4, etc.), requiring dogs to be on a leash no longer than 6 feet at all times and within the owner's complete control (SNPL AMM 54, CLTE 43, etc.), and pre-activity surveys in sensitive areas and use of fencing, postponement, or relocation (SWPT AMM 4, CRL AMM 4, etc.). With implementation of AMMs, the risk of direct effects on coast horned lizards and Northern California legless lizards from park visitor activities is low.

Park visitor activities can affect coast horned lizards and Northern California legless lizards indirectly by compacting soil, spreading invasive species, fragmenting habitat, and increasing trash and thus the risk of predation. CDPR implements a habitat restoration program, invasive species control, and use of pesticides to improve and enhance native habitats that support these species and control invasive species. In addition, measures to avoid and minimize effects of trash and predation on coast horned lizard and Northern California legless lizards are implemented through the conservation program for HCP covered species that occupy similar habitat or exposed to the similar effects from park visitor activities. These include trash control and management (SNPL AMMs 32-33,41, 53, CLTE AMMs 25-26, 32-33, etc.), and a robust predator control program (SNPL AMMs 34, 37-40, CLTE AMMs 27-31, etc.). By implementing the CDPR management program and AMMs, the risk of indirect effects on coast horned lizards and Northern California legless lizards from park visitor activities is low.

Natural Resources Management

Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), and Invasive Plant and Animal Control (CA-17). The potential to encounter these species is highest in already vegetation 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.

Listed plant management, habitat restoration, and invasive plant and animal control can result in mortality, injury, or disturbance if coast horned lizard and Northern California legless lizard are present within the work area. Effects can include lizards being crushed, burrows collapsed, or soils compacted by CDPR staff or their vehicles, lizards being killed or injured by prescribed burns, and/or behavioral changes from disturbance. As part of CDPR's standard practices in the HCP area, pre-construction surveys are conducted, if determined necessary by a qualified biologist/Natural Resource staff, prior to conducting listed plant management, habitat restoration, or invasive plant management in the vegetation islands or other suitable habitat for coast horned lizards and Northern California legless lizards to avoid harm and injury to individual lizards. If an individual is observed during the pre-construction survey or work, activities are delayed until the individual has moved from the area or a qualified biologist moves the individual from the area. With implementation of these standard practices, the risk of mortality, injury, or disturbance effects on coast horned lizards and Northern California legless lizards is low. Overall, these activities could create additional vegetated and/or cover habitats for both Northern

California legless lizards and coast horned lizards and remove potential non-native predators and invasive plants and are, therefore, beneficial to these species. This trend is expected to continue in the future.

Impacts of proposed listed plant propagation and outplanting, dune slack restoration, CalVTP, and invasive aquatic predator control on coast horned lizards and Northern California legless lizards are addressed in EIR sections 6.3.2.7 and 6.4.1.7.

WHPP Implementation (CA-18). As part of WHPP implementation, targeted surveys for coast horned lizard and Northern California legless lizard may be pursued. As part of these surveys, Northern California legless lizards and coast horned lizards may be handled for identification purposes. These species could also be killed or injured during handling, although this is unlikely and has not been documented to date. Capture and handling can also cause stress (disturbance) to these species in the short-term. As a result, WHPP implementation can have moderate mortality, injury, or disturbance effects on coast horned lizard and Northern California legless lizard. Ultimately, however, WHPP implementation has beneficial effects 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.

Park Maintenance

General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Routine Riparian Maintenance (CA-26), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance(CA-28), Heavy Equipment Response (CA-29), Minor Grading (CA-30), and Boardwalk/Other Pedestrian Maintenance (CA-31). General facilities maintenance trash control, wind fencing, perimeter fencing, cable fencing, heavy equipment response, and minor grading occur outside of vegetated areas (i.e., typical coast horned lizard and Northern California legless lizard habitat) or within open sand areas. Open sand areas are infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover. Although unlikely, if coast horned lizard and Northern California legless lizard disperse through these areas, they can be injured or killed by equipment associated with these activities. Boardwalks within the HCP area span dune vegetation or open sand beaches. Coast horned lizard and Northern California legless lizard could use the boardwalk as cover and/or they could occur within vegetation adjacent to the boardwalk, although their occurrence in these areas is unknown. Vegetation island fencing is installed directly adjacent to habitat where coast horned lizards and Northern California legless lizards have been found in the past. Riparian maintenance activities include activities such as exotic species control and riparian tree maintenance. Coast horned lizard and Northern California legless lizard may use riparian vegetation as cover, although their occurrence in these areas is not known. Boardwalk maintenance, vegetation island fencing, and 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 qualified biologist/Natural Resource staff, prior to activities within or adjacent to suitable habitat for coast horned lizard and Northern California legless lizard to avoid harm and injury to individual lizards. If an individual is observed during the pre-activity 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 of these standard practices, the risk of mortality, injury, or disturbance to individuals or habitats of coast horned lizard and Northern California legless lizard is low. This trend is expected to continue in the future.

Trash Control (CA-22) has a beneficial effect on coast horned lizards and Northern California legless lizards by reducing the presence of potential predators. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal and cable fence replacement on coast horned lizards and Northern California legless lizards are addressed in EIR sections 6.3.2.7 and 6.4.1.7.

Visitor Services

Ranger, Lifeguard, Park Aide Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), ASI Courses (CA-35), Beach Concessions (CA-36). Ranger, lifeguard, and park patrols; emergency response; access by non-CDPR vehicles; ASI courses; and beach concessions all occur within open sand areas and do not effect suitable habitat for coast horned lizard or Northern California legless lizard. Although unlikely, if coast horned lizard and Northern California legless lizard disperse through these areas, they can be injured, killed, or disturbed by vehicles associated with these activities. However, open sand areas are infrequently used by these species for dispersal over other more suitable habitats since these areas provide minimal cover. As a result, the risk of mortality, injury or disturbance effects on coast horned lizard or Northern California legless lizard is low. This trend is expected to continue in the future.

Other Activities

Dust Control Activities (CA-44). Dust control activities are currently occurring within the HCP area as part of the Dust Control Program. 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 do not typically 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 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, mortality, or disturbance of these species. These effects include lizards or burrows can be crushed by CDPR staff or vehicles, or changes in behavior. However, mitigation measures for the Dust Control Program include pre-construction surveys prior to removing or installing dust control measures to avoid harm and injury to individual lizards in accordance with the Oceano Dunes SVRA Dust Control Program MMRP (CDPR 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 these measures, the risk of mortality, injury, or disturbance effects on individuals or habitats of coast horned lizard and Northern California legless lizard is low. Overall, the dust control program has created additional vegetated and/or cover habitats for both Northern California legless lizard and coast horned lizard and is, therefore, beneficial to these species. This trend is expected to continue in the future.

Impacts of proposed new dust control activities on coast horned lizards and Northern California legless lizards are addressed in EIR section 6.4.1.7.

Cultural Resources Management (CA-45). Cultural resource management activities typically occur within open sand areas, although they could occur anywhere in the HCP area. Cultural resource management activities typically involve minimal disturbance and do not typically require ground disturbance. As a result, mortality or injury of coast horned lizard or Northern California legless lizard is not expected. If a cultural resource site is located in habitat utilized by

coast horned lizard or Northern California legless lizard, testing, data recovery, stabilization, or restoration of the site could result in disturbance to individuals within the cultural resource work area. However, any disturbance is likely to be temporary and short in duration and lizards are expected to move from the area to nearby suitable habitat. Therefore, the risk of disturbance effects on coast horned lizard or Northern California legless lizard is low. This trend is expected to continue in the future.

Use of Pesticide (CA-51). Pesticides in the HCP area are used to prevent the spread of invasive plant species. Application of pesticides in the HCP area could result in injuring or killing coast horned lizard or Northern California 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 Northern California legless lizard from cover, although these species typically find additional cover and/or return to their previous cover after the disturbance has passed. In addition, AMMs for pesticides are implemented for covered species to reduce the risk of mortality, injury or disturbance effects, which also avoids or minimizes effects on coast horned lizards and Northern California legless lizards (SNPL AMMs 121-126, CLTE AMMs 107-112, etc.). As a result, the risk of mortality, injury, or disturbance effects on coast horned lizards and Northern California legless lizards is low. This trend is expected to continue in the future.

Although pesticides are not thought to cause mortality to wildlife species, mortality is difficult to observe and can occur. Pesticides used in the HCP area can cause mortality if coast horned lizards or Northern California legless lizards ingest a toxic pesticide directly or through their food source. Pesticides could also cause habitat effects by changing food availability and vegetation cover. Many pesticides used in the HCP area are used in habitat where coast horned lizards and Northern California legless lizards 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 or injury is low. AMMs for pesticides are implemented for covered species to reduce the risk of mortality or habitat effects, which also avoids or minimizes effects on coast horned lizards and Northern California legless lizards. As a result, the risk of mortality, injury, or habitat effects from pesticide application is low. This trend is expected to continue in the future.

Ultimately, pesticides have a beneficial effect on coast horned lizards and Northern California legless lizards by improving habitat by preventing the encroachment of invasive plant species.

Western Burrowing Owl

Western burrowing owls (burrowing owl) in California generally breed from February 1 to August 31. Breeding burrowing owls do not occur within the HCP area. Therefore, there are no effects on breeding burrowing owls from covered activities. This trend is expected to continue in the future.

Burrowing owls in California are also found in burrows or other wintering habitat (e.g., driftwood, dune vegetation) outside the breeding season from September 1 to January 31. Suitable habitat for wintering burrowing owl is present in the HCP area, and wintering burrowing owls have been observed in the HCP area. Burrowing owls 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). A burrowing owl was also observed in January 2022 at Cable Fence, near Post 8 and North Oso Flaco. Effects from existing covered activities in suitable burrowing owl winter habitat can occur within any terrestrial habitat in the HCP area.

Covered activities occurring outside of burrowing owl habitat and/or activities that have no risk of affecting burrowing owl and are not further discussed. Covered activities with no effects on burrowing owls include Fishing (CA-5), Boating/Surfing (CA-8), SNPL and CLTE Management (CA-12a and 12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Water Quality and Monitoring (CA-19), Campground Maintenance (CA-20), Routine Riparian Maintenance (CA-26), Cable Fence Maintenance (CA-28), Pismo State Beach Golf Course Operations (CA-37), Natural History and Interpretation Programs (CA-39), Motorized Vehicles Crossing Creeks (CA-40), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

No existing covered activities have been identified that would have a high risk of effect on burrowing owl. Existing covered activities with low to moderate risk of affecting burrowing owl are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit burrowing owls include Invasive Plant and Animal Control (CA-17), Trash Control (CA-22) which help control predators.

See Table D-1 for the risk level of existing covered activities affecting burrowing owl, as well as existing covered activities with beneficial effects on burrowing owl.

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), Bicycling and Golfing (CA-4), 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, 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 effect occurring is low. As a result, the risk of mortality or injury from motorized activities on burrowing owl within the HCP area are low. This trend is expected to continue in the future.

Non-motorized recreation is allowed in other areas where motorized vehicles are not, including areas where burrowing owls have been observed. Pedestrians, bicycles, dogs, horses, and aerial/wind driven activities in the HCP area can disturb burrowing owls, potentially resulting in the abandonment of burrows/cover locations. Pedestrians, bicyclists, dog walkers, and equestrians traveling through occupied habitat can disturb burrowing owl individuals, increasing stress or reducing foraging success. Foraging burrowing owls interrupted by human activity stop foraging and may move away from the area until the disturbance has passed. Burrowing owls 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, sunbathing, and kite flying, can displace burrowing owls for longer periods. However, burrowing owls are uncommon in the HCP area, and these effects are typically short in duration. As a result, the risk of effects on burrowing owls from non-motorized recreation is low. This trend is expected to continue in the future.

Park visitor 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 park visitor activities are associated occur in areas with heavy recreational use where burrowing owls 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, effects on habitat are low. This trend is expected to continue in the future.

Recreationists increase the presence of trash which can attract predators and increase the risk of predation on burrowing owls. However, measures to avoid and minimize effects of trash and predation on burrowing owls are implemented through the conservation program for HCP covered species that occupy similar habitat or exposed to the similar effects from park visitor activities. These include trash control and management (SNPL AMMs 32-33,41, 53, CLTE AMMs 25-26, 32-33, etc.), and a robust predator control program (SNPL AMMs 34, 37-40, CLTE AMMs 27-31, etc.). Therefore, the risk of this effect is low. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Potential effects on burrowing owls from visitor activities are likely exacerbated during periods of high visitor use 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 and special events do not increase the number of day use or camping vehicles or OHV allowed on the beach or allow recreational use in areas normally closed to recreation. However, additional non-motorized recreation could occur during holidays or special events, which could exacerbate The effects of non-motorized recreational activities described above, depending on the location and number of visitors. However, burrowing owls are uncommon in the HCP area, and holidays and special events occur relatively infrequently. As a result, this increased risk of increased effects during holidays and special events is low. This trend is expected to continue in the future.

Natural Resources Management, Park Maintenance, and Visitor Services

Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp/Other Vehicle Access (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Boardwalk/Other Pedestrian Maintenance (CA-31), Ranger, Life Guard and Park Aide Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), ASI Courses (CA-35), and Beach Concessions (CA-36). Natural resources management, park maintenance, and visitor services within the vicinity of a burrowing or foraging burrowing owl are not expected to result in mortality or injury of a 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 effects occurring is low since burrowing owl is uncommon with the HCP area. In addition, many natural resources management, park maintenance, and visitor services activities are temporary and short in duration. Finally, as part of CDPR standard practices, pre-activity surveys are conducted, as determined to be necessary by qualified biologist/Natural Resource staff, prior to natural resources management, park maintenance, and visitor services activities in suitable burrowing owl habitat to avoid or minimize effects on wintering burrowing owls 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 avoidance measures (e.g., flagging or fencing and/or biological monitoring) are in place. As a result, the risk of disturbance from these activities is low. This trend is expected to continue in the future.

Invasive Plant and Animal Control (CA-17) and Trash Control (CA-22) likely benefit burrowing owls overall by controlling predators.

Impacts of proposed listed plant propagation and outplanting, dune slack restoration, CalVTP, invasive aquatic predator control, and mechanical trash removal on burrowing owls are addressed in EIR sections 6.3.2.8 and 6.4.1.8.

Other Activities

Dust Control Activities (CA-44). Dust control activities in the HCP area are already occurring as part of the Dust Control Program. Pre-construction surveys for burrowing owl are required in the backdunes during the winter season (September 1 through February 28) in accordance with the Oceano Dunes SVRA Dust Control Program MMRP (CDPR 2017). 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, the risk of mortality or injury effects on burrowing owl is low. This trend is expected to continue in the future.

Disturbance effects on burrowing owl within burrows from dust control activities do not occur due to the 100 foot no disturbance buffer. 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, the risk of disturbance effects on burrowing owl from dust control activities is low. This trend is expected to continue in the future.

Little is known about the wintering burrowing owl habitat in the HCP area. Planting vegetation associated with dust control activities within the HCP area may reduce available suitable wintering habitat for burrowing owls, 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 or foraging habitat during winter and dust control activities could increase the amount of vegetative cover. Overall, the habitat effects are unknown and could range from low to moderate. This trend is expected to continue in the future.

Impacts of proposed new dust control activities on burrowing owls are addressed in EIR section 6.4.1.8.

Cultural Resources Management (CA-45). Cultural resources management could have short-term disturbance effects on burrowing owls similar to those described in the Natural Resources Management, Park Maintenance, and Visitor Services section above. The risk of disturbance from cultural resources management is low. This trend is expected to continue in the future.

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 owls can be affected by drift from herbicide. However, as part of the natural resource management program in the HCP area, measures are implemented to reduce effects 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 the risk of mortality or injury to birds. This trend is expected to continue in the future.

Pesticide application can result in disturbance of individual burrowing owls by deterring them from resting or foraging. Helicopter sprayers flying within the HCP area can be highly disruptive to birds and may cause burrowing owls to flush from the cover. However, as part of their standard practice, CDPR conducts surveys for burrowing owls prior to conducting ground application of herbicides if the activities are determined by a qualified biologist/Natural Resource staff to have potential to affect burrowing owls. If a burrowing owl individual is observed, activities are delayed until appropriate avoidance measures are in place. Such measures 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 effects on burrowing owls from helicopter activity are infrequent and short in duration. As a result, the risk of disturbance effects from pesticide application is low. This trend is expected to continue in the future.

Pesticide use has an unknown effect on burrowing owl habitat. Controlling invasive plants may increase the open habitat favored by this species, but herbicides are mostly used to control invasive grasses in the HCP area, and grassland can be suitable habitat for burrowing owls. Overall the risk of effects on burrowing owl habitat is low. This trend is expected to continue in the future.

Nesting Birds

There are ten special-status bird species that nest in the HCP area and/or occur in the HCP area during the breeding season and likely nest nearby, including the two covered bird species (SNPL and CLTE), least bittern (*Ixobrychus exilis*), Cooper's hawk (*Accipiter cooperi*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), prairie falcon (*Falco mexicanus*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophilia alpestris actia*), and yellow warbler (*Setophaga petechia*). Common nesting birds also occur throughout the HCP area, including in developed areas. Any effects on nesting birds 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).

Covered activities occurring outside of nesting bird habitat and/or activities that have no risk of affecting nesting birds and are not further discussed. There is only one covered activities with no effects on nesting birds: Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Most existing covered activities have a low risk of affecting nesting birds; however, there is a high risk of effect from SNPL and CLTE Management (CA-12a and 12b) due to the lethal removal of some nesting raptors as part of the predator management program. There is a moderate risk of effects exists from some park visitor activities including Motorized Recreation (CA-1), Pedestrian Activities (CA-3), Fishing (CA-5), Aerial/ Wind Driven Activities (CA-9), Holidays (CA-10), and Special Events (CA-11). Existing covered activities with low to high risk of affecting nesting birds are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit nesting birds include the Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Trash Control (CA-22), and Dust Control Activities (CA-44). These activities include a broad range of benefits for species and their habitat including annual

monitoring, habitat enhancement and restoration, and reduction of predators that benefit birds throughout the year.

See Table D-1 for the risk level of existing covered activities affecting nesting birds, as well as existing covered activities with beneficial effects on nesting birds.

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Bicycling and Golfing (CA-4). These activities are generally limited to developed and open sand areas and therefore are only expected to affect nesting birds adapted to human disturbance and ground nesting birds. Common nesting birds in developed areas in the HCP area include American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), and others. Ground nesting birds include SNPL, CLTE, California horned lark, killdeer (*Charadrius vociferous*), and Northern harrier (but this species nests in marshes closed to these activities). SNPL and CLTE are protected by exclosures during the nesting season, which also help protect California horned lark and killdeer, if present. These activities are not within suitable habitat for most of the other special-status nesting birds in the HCP area, although the trees surrounding the campgrounds may provide nesting habitat for Cooper's hawk and white-tailed kite. Other nesting bird species in the HCP area nest in trees, vegetation, or structures and therefore, these activities are unlikely to directly affect active bird nests. 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. As a result, the risk of mortality or injury effects on nesting birds from these activities ranges from low (camping, bicycling and golfing) to moderate (motorized recreation). This trend is expected to continue in the future.

If motorized recreation, camping, bicycling, golfing, or kite or drone flying occur near an active bird nest they can temporarily displace individuals from their nest or from foraging, altering their normal behavior patterns. However, birds that nest in areas with high recreational activity are adapted to a high level of disturbance. 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, the risk of disturbance effects from these activities is low. This trend is expected to continue in the future.

Recreationists increase the presence of trash which can attract predators and increase the risk of predation on nesting birds. However, measures to avoid and minimize effects of trash and predation on nesting birds are implemented through the conservation program for HCP covered species that occupy similar habitat or exposed to the similar effects from park visitor activities. These include trash control and management (SNPL AMMs 32-33,41, 53, CLTE AMMs 25-26, 32-33, etc.), and a robust predator control program (SNPL AMMs 34, 37-40, CLTE AMMs 27-31, etc.). Therefore, the risk of this effect is low. This trend is expected to continue in the future.

Pedestrian Activities (CA-3), Dog Walking (CA-6), Equestrian Recreation (CA-7), Aerial/Wind Driven Activities (CA-9). Pedestrians (including kite and drone flyers), dog walkers, and equestrians 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. Nests for most avian species occur above the ground in a tree, shrub, or structure and are not affected by pedestrians, dogs, or horses. Pedestrians, dogs, or horses 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 these activities. Ground nesting birds in the HCP area are protected from these activities by a seasonal exclosure (i.e., SNPL, CLTE, California horned lark), or nest in areas where these activities are unlikely to occur (Northern harrier). As a result, the risk of mortality or injury effects from pedestrians, dog walkers, or equestrians is low. This trend is expected to continue in the future.

Pedestrians (including kite and drone flyers), dog walkers, and equestrians have similar short-term disturbance effects as motorized recreation, camping, etc. described above. Disturbances from dog walking are minimized by requiring leashes for dogs or banning dogs from sensitive areas (Oso Flaco area; SNPL AMMs 54-55, CLTE AMMs 43-44, etc.). Equestrians are not allowed south of the riding boundary fence, including around Oso Flaco Lake, and equestrians must remain on designated trails where such trails exist. Pedestrians are allowed in most parts of the HCP area but mostly use open sand areas (beaches), campgrounds, or designated trails. Stationary activities, such as picnicking, sunbathing, and kite flying, can displace burrowing owls for longer periods. In addition, nesting birds may perceive kites or drones as predators, resulting in increased stress or risk of nest abandonment. The risk of disturbance on nesting birds from these activities is low (dog walking, equestrian recreation, most pedestrian activities, and windsurfing) to moderate (some pedestrian activities and kite flying/drones), depending on the location and duration. This trend is expected to continue in the future.

Recreationists increase the presence of trash which can attract predators and increase the risk of predation on nesting birds, but such effects are minimized as described for motorized recreation, etc. above. Therefore, the risk of this effect is low. This trend is expected to continue in the future.

Fishing (CA-5), Boating/Surfing (CA-8). Fishing and/or boating could disturb riparian and aquatic nesting birds 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. Within the HCP area fishing occurs along the shoreline or at Oso Flaco Lake. Effects on nesting birds along the shoreline are similar to those discussed under effects on 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 effects are low when visitors fish at this location. As a result, the risk of disturbance effects on nesting birds from aquatic recreational activities is low. This trend is expected to continue in the future.

Discarded fishing line or hooks directly discarded on the beach or washed up by the tides can entangle or pierce nesting birds, especially aquatic or wading birds such as ducks, egrets, and herons. Increased predation on nesting birds could result from visitor trash or discarded fishing bait as described above for motorized recreation, etc. Anglers will continue to be encouraged to properly dispose of fishing lines, hooks, and bait at various locations within the park where trash receptacles are located, and CDPR manually remove garbage and litter (SNPL AMM 53, CLTE AMM 42, etc.). Despite implementation of AMMs, the risk of mortality or injury from fishing equipment is moderate. This trend is expected to continue in the future.

Holidays (CA-10), and Special Events (CA-11). The existing effects of holidays and special events are similar to those of Motorized Vehicles (CA-1), Camping (CA-2), and Pedestrian Activities (CA-3). Potential adverse effects on nesting birds 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 OHVs allowed on the beach but increases the intensity of the potential effect. As a result, the risk of disturbance effects on nesting birds from holidays and special events is moderate. This trend is expected to continue in the future.

The effects of fireworks on nesting birds are similar to those described above for Western Snowy Plover, although The effects are less for most nesting bird species because most birds do not nest in open sand areas where fireworks occur. 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. 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 AMM 64-65, etc.). Currently, the risk of disturbance on nesting birds is low to moderate, depending on the location and type of special event. This trend is expected to continue in the future.

Natural Resources Management

SNPL and CLTE Management (CA-12a and 12b). Most nesting birds are not affected 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, are known to nest in the HCP area in similar habitat as 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 are conducted by CDPR staff who are trained in avoidance and minimization protocols. As a result, mortality or injury 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, the risk of mortality or injury from SNPL and CLTE management activities is low. 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 survey 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 disturbance effects on nesting birds from these activities is low. This trend is expected to continue in the future.

Although hazing is the most commonly used method for avian predator management, avian predators such as gulls and ravens (*Corvus corax*) may also be trapped and relocated or lethally removed. This may include nesting avian predators, including raptors. As a result, predator management program activities could result in mortality or removal of adult birds that are potential SNPL and CLTE avian predators during the nesting season, which ultimately leads to the abandonment of eggs or chicks. Removal of avian predators is conducted under a USFWS depredation permit. 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 effect. Hazing of potential avian predators can 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, the risk of mortality or disturbance from predator management activities on nesting gulls, ravens, raptors or other potential SNPL and CLTE avian predators is high. This trend is expected to continue in the future.

Impacts of proposed new SNPL and CLTE Management activities on nesting birds are addressed in EIR sections 6.3.2.9 and 6.4.1.9.

Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), and Water Quality Monitoring (CA-19). Tidewater goby and salmonid surveys, herpetological monitoring and management, and water quality monitoring do not result in mortality or injury of nesting birds. These activities occur adjacent to and within waterbodies, sometimes during the nesting bird season. Aquatic surveys and water quality monitoring conducted during the nesting bird season could disturb riparian or aquatic nesting birds, including, but not limited to, special-status species such as yellow warbler and least bittern. These activities are conducted by qualified biologists or CDPR staff experienced in recognizing breeding behavior and familiar with CDPR standard practices to protect nesting bird, however, some disturbance of nesting birds could still occur. Biologists may postpone or move activities if nest disturbance is documented. As a result, the risk of disturbance effects on nesting birds is low. This trend is expected to continue in the future.

Impacts of proposed tidewater goby salvage, and SWPT and WSF monitoring, on nesting birds are addressed in EIR section 6.3.2.9.

Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), and WHPP Implementation (CA-18). Mortality or injury of nesting birds is not known to occur from these activities and are not thought to occur since these activities do not remove trees, vegetation, or other structures that birds typically nest in. These activities are conducted by CDPR staff who are trained in standard practices to protect nesting birds. However, despite this, these activities, if they occur in suitable nesting habitat, may result in disturbance 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. As part of their standard practice, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a qualified biologist/Natural Resource staff to have potential to affect nesting birds. If a nest is observed, activities are delayed until appropriate avoidance measures are in place, including establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. As a result, the risk of disturbance from these activities on nesting birds is low. In addition, the Habitat Restoration Program (CA-16) and Invasive Plant and Animal Control (CA-17) benefit many nesting birds overall by improving habitat and reducing potential predators or competing species in the HCP area. WHPP Implementation (CA-18) 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.

Impacts of proposed listed plant propagation and outplanting, dune slack restoration, CalVTP, and invasive aquatic predator control on nesting birds are addressed in EIR sections 6.3.2.9 and 6.4.1.9.

Park Maintenance

Campground maintenance (CA-20), General Maintenance Activities (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp/Other Vehicle Access (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance(CA-28), Heavy Equipment Response (CA-29), Minor Grading (CA-30), and Boardwalk/Other Pedestrian Maintenance (CA-31). The activities are conducted by CDPR staff who are trained in CDPR standard practices to protect nesting birds. Most of these activities occur in open sand areas or within developed areas of the park, where only common, urban adapted species or ground nesting species protected by exclosures are known to nest. Mortality or injury of nesting bird species from these activities do not occur since trees, vegetation, and other structures where birds nest is not removed by these activities and these activities do not occur within nesting exclosures. Therefore, the risk of mortality or injury from these activities is low. 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, vegetation island fencing occurs in suitable habitat for these species away from recreation activities and can result in destruction of a ground nesting bird nest during the breeding season. As part of the natural resource management program, precautions are taken for SNPL and CLTE 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 practices, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a qualified biologist/Natural Resource staff to have potential to affect nesting birds. If a nest is observed, activities are delayed until appropriate avoidance measures are in place, including establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. As a result, the risk of mortality or injury effects on nesting birds is low. 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 practices, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a qualified biologist/Natural Resource staff to have potential to affect nesting birds. If a nest is observed, activities are delayed until appropriate avoidance measures are in place, including establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. As a result, the risk of disturbance from these activities on nesting birds is low. This trend is expected to continue in the future.

Trash Control (CA-22) likely benefits nesting birds overall by removing trash that birds could ingest or become entangled in, and reducing predation since trash attracts predators.

Impacts of proposed mechanical trash removal on nesting birds are addressed in EIR section 6.3.2.9.

Routine Riparian Maintenance (CA-26). Riparian maintenance activities only affect riparian or aquatic nesting birds, including special-status species such as 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 Alteration Agreement (1600-2012-0001-R4) describes pre-project survey requirements. If a an active bird nest is found, a buffer zone is required around the nest until the young have fledged. With implementation of this project requirement, the risk of mortality, injury, or disturbance effects on nesting birds is low. This trend is expected to continue in the future.

Visitor Services

Ranger, Lifeguard, Park Aide Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), ASI Courses (CA-35), Beach Concessions (CA-36), Pismo Beach Golf Course operations (CA-37), and Natural History/Interpretation (CA-39). Except for Natural History/Interpretation (CA-39), these activities occur in areas of high disturbance where only typically common, urban adapted species or ground nesting species protected by exclosures nest. Natural History/Interpretation (CA-39) occurs in areas of the park where other birds, including riparian birds and waterbirds are known to nest. Mortality or injury of nesting birds does not occur from these activities since trees, vegetation, and other structures where birds are known to nest are not removed by these activities, and these activities do not typically occur in nesting exclosures (except as described in the Western Snowy Plover and California Least Tern sections above). Therefore, the risk of mortality or injury effects on nesting birds from these activities is low. 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 disturbance effects on nesting birds from these visitor services activities is low. 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 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 disturbance effect is rarely (if ever) expected to occur and the risk is low. This trend is expected to continue in the future.

Other Activities

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. However, most vehicle crossings are expected to be temporary and short in duration. As a result, the risk of mortality, injury or disturbance effects on nesting birds from vehicles crossing creeks is low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). Dust control activities do not affect 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 bird is found, a buffer zone is established around the nest until the young have fledged. With implementation of this project requirement, the risk of effects on nesting birds is low. This trend is expected to continue in the future.

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. As a result, the risk of habitat effects are low.

Except for species that nest in open sand areas, the Dust Control Program likely nesting birds overall, by providing additional vegetation for nesting and/or foraging habitat.

Impacts of proposed new dust control activities on nesting birds are addressed in EIR section 6.4.1.9.

Cultural Resources Management (CA-45). Cultural resource management activities typically occur within open sand areas, although they can occur anywhere in the HCP area except aquatic habitat. Cultural resource management activities do not affect riparian or aquatic nesting birds since they do not occur in aquatic habitats. Cultural resource management activities do not directly affect any trees, vegetation, or structures. As a result, the risk of mortality or injury to nesting birds does not occur. This trend is expected to continue in the future.

Testing, data recovery, stabilization, or restoration of a cultural resource site during the breeding season can result in disturbance to nesting birds nearby the cultural resource work area. As part of their standard practices, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a qualified biologist/Natural Resource staff to have potential to affect nesting birds. If a nest is observed, activities are delayed until appropriate avoidance measures are in place, including establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. Therefore, the risk of disturbance

from cultural resource management activities on nesting birds is low. This trend is expected to continue in the future.

CDPR Agricultural Land Management (CA-46). Ditch maintenance consisting of sediment or vegetation removal is a covered activity that may be required sometime in the next 25 years. If an active bird nest is present in the vegetation to be removed, it could be inadvertently destroyed. In addition, nearby nesting birds could be temporarily disturbed, deterring them from incubating eggs or chicks during the period of disturbance. As part of their standard practices, CDPR conducts a nesting bird survey prior to conducting the activity if any activities are determined by a qualified biologist/Natural Resource staff to have potential to affect nesting birds. If a nest is observed, activities are delayed until appropriate avoidance measures are in place, including establishing a no disturbance buffer, as determined by a qualified biologist, and/or conducting biological monitoring. Therefore, the risk of mortality, injury, or disturbance effects from CDPR agricultural land management on nesting birds is low. This trend is expected to continue in the future.

Use of Pesticide (CA-51). This activity is conducted by CDPR staff who are trained in standard practices to protect nesting birds. Nesting birds can be effected by drift from herbicide. However, as part of the natural resource management program in the HCP area, measures are implemented to reduce effects 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 (SNPL AMM 120-123). With the implementation of AMMs, mortality or injury of nesting birds from use of pesticides does not occur. This trend is expected to continue in the future.

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 standard practice, CDPR conducts a nesting bird survey prior to conducting any ground herbicide application activity if any activities are determined by a qualified biologist/Natural Resource staff to have potential to affect nesting birds. If a nest is observed, activities are delayed until appropriate avoidance measures are in place, including 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 affected. 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. Overall, the risk of disturbance effects on nesting birds from use of pesticides is low. 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.

Pesticide use has an unknown effect on nesting bird habitat. Controlling invasive plants may improve habitat for many species of nesting birds, but herbicides are mostly used to control invasive grasses in the HCP area, and grassland can be suitable habitat for some nesting birds. Overall, the risk of effects on burrowing owl habitat is low. This trend is expected to continue in the future.

Wintering/Migratory Birds

Due to its location within the Pacific Flyway, the HCP area hosts numerous wintering and migratory birds each year, including shorebirds, waterbirds, raptors, and songbirds. Special-status species known to winter or migrate through the HCP area include redhead (*Aythya americana*), brant (*Branta bernicla*), common loon (*Gavia immer*), American white pelican (*Pelecanus erythrorhynchos*), double-crested cormorant (*Nannopterum auratus*), osprey (*Pandion haliaetus*), sharp-shinned hawk (*Accipiter striatus*), bald eagle (*Haliaeetus leucocephalus*), merlin (*Falco columbarius*), mountain plover (*Charadriu montanus*), long-billed curlew (*Numenius americanus*), black tern (*Chidonias niger*), California gull (*Larus californicus*), black skimmer (*Rynchops niger*), elegent tern (*Thalasseus elegens*), marbled murrelet (*Brachyramphus marmoratus*), Vaux's swift (*Chaetura vauxi*), black swift (*Cypseloides niger*), willow flycatcher (*Empidonax trailii*), bank swallow (*Riparia riparia*), tricolored blackbird (*Agelaius tricolor*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), Lucy's warbler (*Oreothylpis luciae*), and summer tanager (*Piranga rubra*). Wintering/migratory birds are not typically protected unless they are special-status species.

Existing park operations, including recreation, natural resources management, park maintenance, visitor services, and other existing activities are known to affect wintering and/or migratory birds. Effects 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 affect shorebirds and other birds foraging along the wrack line or intertidal areas. Activities at Oso Flaco Lake can affect foraging or roosting waterbirds and songbirds. The HCP area contains numerous birding hotspots which are defined as areas of high bird concentrations or diversity during spring and fall migration. The primary birding hotspots in the HCP area include Oso Flaco Lake, Oceano Lagoon, and Oceano Campground. The risk of disturbance effects on wintering/migratory birds is considered higher at the birding hotspots.

Many covered activities have been observed temporarily displacing wintering birds by 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, the risk of effects of most covered activities on wintering/migratory birds would not result in mortality or injury (CA-2 through CA-9; CA-12 through CA-40; CA-44 through CA-47; CA-51) or were addressed in the Nesting Birds section. These activities are not discussed further. In addition, some activities have beneficial effects on wintering/migratory birds, including Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Trash Control (CA-22), and Dust Control Activities (CA-44) since they improve the quantity or quality of foraging habitat, remove or control predators, or provide important information on migratory activity in the HCP area. This trend is expected to continue in the future.

Effects on wintering/migratory birds, including special-status species with some exceptions such as the western burrowing owl, do not require permits, authorizations, or implementation of AMMs during the non-breeding season timeframe to ensure that effects are low. As a result, only specific existing covered activities thought to have the risk of mortality or injury to wintering/migratory birds are discussed further below.

Impacts on wintering/migratory birds from proposed new natural resources management (SNPL adult banding, habitat manipulation of the Southern Exclosure, tidewater goby salvage, etc.),

park maintenance (mechanical trash removal), and other covered activities (new dust control activities) are addressed in EIR sections 6.3.2.10 and 6.4.1.10.

See Table D-1 for the risk level of existing covered activities affecting wintering/migratory birds, as well as existing covered activities with beneficial effects on wintering/migratory birds.

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. As a result, the risk of mortality or injury effects on wintering/migratory birds from motorized recreation is moderate. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Effects on wintering/migratory birds from visitor activities are likely exacerbated during periods of high visitor use, such as holidays or special events. Holidays and special events may increase the risk bird collisions with vehicles and disturbance to wintering birds and their habitat. As a result, risk of mortality, injury, or disturbance effects on wintering/migratory birds from holidays and special events is moderate. This trend is expected to continue in the future.

Bats

Three special-status species occur within the HCP area including pallid bat (*Antrozous pallidus*), Townsends' big-eared bat (*Corynorhinus townsendii*), and western red bat, (*Lasiurus blossevillii*; EIR Table 6-2). Pallid bat, western red bat, and Townsend's big-eared bat have been detected during acoustic surveys in the HCP area at Oso Flaco Lake and Oceano Lagoon. In addition, all roosting bats are protected by California Fish and Game Code. Bat foraging habitat includes riparian corridors, aquatic habitats over lakes and wetlands, wooded areas, and low-growing vegetated areas. Bat roosting habitat includes wooded habitat, crevices, buildings, and other anthropogenic structures. Caves or cliffs are not present in the HCP area.

Existing covered activities that occur during the daytime when bats are not active and/or do not occur in roosting or foraging habitat have no risk of affecting roosting or foraging bats and are not discussed further. Existing covered activities with no effects on bats 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 12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), Water Quality and Monitoring (CA-19), Campground Maintenance (CA-20), General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance (CA-28), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Boardwalk/other Pedestrian Access Maintenance (CA-31), Ranger, Lifeguard, and Park Aide Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), ASI Courses (CA-35), Beach Concessions (CA-36), Pismo State Beach Golf Course Operations (CA-37), Natural History and Interpretation Programs (CA-39), Motorized Vehicles Crossing Creeks (CA-40), Dust Control Activities (CA-44), Cultural Resources Management (CA-45), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Most existing covered activities have no risk of affecting bats; however, moderate risk of effects exists from Motorized Recreation (CA-1), Camping (CA-2), Holidays (CA-10), and Special Events (CA-11). Existing covered activities with low to moderate risk of affecting bats are described below and are part of the baseline environmental conditions. WHPP Implementation (CA-18) has a beneficial effect on foraging and roosting bats by providing important information on bat activity in the HCP area.

See Table D-1 for the risk level of existing covered activities affecting bats, as well as existing covered activities with beneficial effects on bats.

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 affect 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, the risk of mortality or injury effects on bats from motorized recreation and camping is low. 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 effects on bats in the HCP area from motorized recreation and camping are not known; however, the risk of disturbance effects on bats is low to moderate, depending on the location and timing. This trend is expected to continue in the future.

Pedestrian Activities (CA-3) and Dog Walking (CA-6). Pedestrian activities and dog walking can occur at night but do not cause mortality or injury to bats and have a low risk of disturbance effects on bats with implementation of covered species AMMs such as requiring dogs to be on leash and under the owners control at all times. This trend is expected to continue in the future.

Holidays (CA-10) and Special Events (CA-11). Potential effects on bats from visitor activities may be exacerbated during periods of high visitor use, such as holidays or special events. Holidays and special events may increase the risk of vehicle strike and disturbance to foraging and roosting bats. As a result, risk of mortality, injury, or disturbance effects on bats from holidays and special events is moderate. This trend is expected to continue in the future.

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 avoidance measures are in place, including postponing the removal of trees, establishing buffers around roost sites, or exclusion of bats from

the roost site. As a result, the risk of mortality or injury effects on roosting bats from routine riparian maintenance is low. 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 effects are typically temporary and short in duration and last only the time of the riparian maintenance activity. As a result, the risk of disturbance effects on roosting bats from routine riparian maintenance is low. This trend is expected to continue in the future.

Other Activities

Use of Pesticide (CA-51). Use of pesticides occurs during the daytime when bats are not active, but can occur in suitable bat roosting habitat. Use of pesticides does not cause mortality or injury to bats and has a low risk of disturbance effects on bats with implementation of covered species AMMs such as not spraying if wind speed is over 10 miles per hour and ensuring all workers are trained to work in sensitive habitat (SNPL AMM 120-123). This trend is expected to continue in the future.

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. Overall, American badger is most likely to use areas that are further away from urban areas and connected to other open space habitat.

Existing covered activities occurring outside of American badger habitat and/or have no risk of affecting American badger and are not further discussed. Existing covered activities with no effects on American badger include Bicycling and Golfing (CA-4), Fishing (CA-5), Boating/Surfing (CA-8), Aerial/Wind Driven Activities (CA-9), SNPL and CLTE Management (CA-12a and 12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Water Quality and Monitoring (CA-19), Campground Maintenance (CA-20), Wind Fencing (CA-23), Sand Ramp/Other Vehicle Access (CA-24), Street Sweeping (CA-25), Routine Riparian Maintenance (CA-26), Cable Fence Maintenance (CA-28), Boardwalk/other Pedestrian Maintenance (CA-31), ASI Courses (CA-35), Beach Concessions (CA-36), Pismo State Beach Golf Course Operations (CA-37), Natural History/Interpretation (CA-39), Vehicles Crossing Creeks (CA-40), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Existing covered activities have no risk or a low risk of affecting American badger; no activities were identified that have a moderate or high risk of effects. Existing covered activities with a low risk of affecting badgers are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit American badger include Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), and Dust Control Activities (CA-44) since they provide restore or enhance habitat, control predators, and collect important information on American badger activity in the HCP area.

See Table D-1 for the risk level of existing covered activities affecting American badger, as well as existing covered activities with beneficial effects on American badger.

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), Dog Walking (CA-6), Equestrian Recreation (CA-7), Holidays (CA-10), and Special Events (CA-11). Recreational activities are not permitted in the Phillips 66 Leasehold; therefore, American badgers in this area are not affected by these park visitor activities. In addition, motorized recreation and camping are generally limited to the open sandy 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 uses 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. Speed limits are enforced, which allows American badger to move away from traffic and minimize the risk of effects of mortality or injury. Since badgers do not typically occur in open beach or dune areas, the risk of mortality or injury is low. There is also a potential for dogs to chase or harass American badgers or horses to step on dens, causing mortality or injury or disturbance of American badgers. Although powerful, American badger tend to be secretive and flee when approached. Covered species AMMs are implemented that require dogs to remain under control and on leash at all times (SNPL AMM 54-57), and equestrians must remain on designated trails where such trails exist. As a result, the risk of mortality or injury effects on American badger from park visitor activities is low. 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 HCP 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, the risk of disturbance or habitat effects on American badger from park visitor activities is low. This trend is expected to continue in the future.

Potential effects on American badgers from visitor activities may be exacerbated during periods of high visitor use, such as holidays or special events. However, Oceano Dunes SVRA does not allow additional vehicles to enter the HCP area on holidays or for special events, and special event permits do not authorize activities to occur in areas that would otherwise be closed to visitors; therefore, no additional effects from non-motorized and motorized activities occur in American badger habitat that is typically off limits to visitors. As a result, the risk of disturbance effects from holidays and special events on badgers is low. This trend is expected to continue in the future.

Natural Resources Management

Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), and WHPP Implementation (CA-18). Listed plant management, habitat restoration, 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. The risk of mortality or injury to American badger from these activities has never been documented and is unlikely to occur. As part of CDPR's standard practice, pre-construction surveys are conducted, as determined to be necessary by a qualified biologist/Natural Resource staff, prior to conducting

listed plant management, habitat restoration, 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 avoidance measures are in place (e.g., no disturbance buffer). With implementation of this measure, the risk of disturbance effects on American badger is low. Overall, activities in the Natural Resources Management Program including the Habitat Restoration Program (CA-16) and Invasive Plant and Animal Control (CA-17) creates additional vegetated and/or cover habitats for American badger is, therefore, beneficial to this species. In addition, the WHPP Implementation (CA-18) has beneficial effects 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.

Impacts of proposed listed plant propagation and outplanting, dune slack restoration, CalVTP, and invasive aquatic predator control on American badger are addressed in EIR sections 6.3.2.12 and 6.4.1.12.

Park Maintenance

General Facilities Maintenance (CA-21), Trash Control (CA-22), Perimeter and Vegetation Island Fencing (CA-27), Heavy Equipment Response (CA-29), and Minor Grading (CA-30). Park maintenance activities occur throughout the HCP area in various levels of frequency and intensity. For example, General Facilities Maintenance (CA-21) and Trash Control (CA-22) occur in areas of higher visitor use with high existing disturbance while Perimeter and Vegetation Island Fencing (CA-27) occurs adjacent to vegetation islands, which is considered suitable habitat for American badger. Maintenance of vegetation island fencing and/or perimeter fencing and any grading or heavy equipment use associated with these activities could disturb American badger or their burrows if they are present nearby. Risk of mortality or injury to American badger from these activities has never been documented and is low.

Vegetation island and perimeter fencing occurs within areas open to recreation activities, including motorize recreation. Because they are highly sensitive to disturbance, no American badgers have been observed in the open riding area or other areas open to recreation and American badger tracks have only been observed one time in the open riding area. As a result, there is low risk of affecting American badger in the open riding area. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal on American badger are addressed in EIR section 6.3.2.12.

Visitor Services

Ranger, Lifeguard, and Park Aide Patrols (CA-32), Emergency Response (CA-33), and Access by Non-CDPR Vehicles (CA-34). CDPR emergency responders sometimes have to 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, the risk of mortality or injury effects on American badger is low. This trend is expected to continue in the future.

If an emergency occurs adjacent to a vegetation island or other area where American badgers 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 is completed quickly. Due to event infrequency and short duration of disturbance, the risk of disturbance from these existing visitor services is low. This trend is expected to continue in the future.

Other Activities

Dust Control Activities (CA-44). 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 in accordance with the Oceano Dunes SVRA Dust Control Program MMRP (CDPR 2017). If dens are found, a 100-foot buffer zone is required. As a result, the risk of mortality, injury, or disturbance effects on American badger is low. This trend is expected to continue in the future.

Planting vegetation associated with dust control activities within the HCP area may reduce available suitable foraging or denning habitat for American badger by installing dust control measures such as wind fencing. However, dust control activities are thought to have overall beneficial effects by increasing the amount of vegetation and, thus, suitable habitat for American badger in the HCP area.

Impacts from future dust control activities on American badger are discussed in EIR section 6.4.1.12.

Cultural Resource Management (CA-45). Cultural resource management activities typically involve minimal disturbance and do not typically require ground disturbance. As a result, the risk of mortality or injury effects on American badger is low. This trend is expected to continue in the future.

If a cultural resource site is located in suitable American badger habitat, testing, data recovery, stabilization, or restoration of the site can disturb individuals within or near the cultural resource work area. However, any disturbance is temporary and short in duration and American badger are typically not present in these areas. As a result, the risk of disturbance and habitat effects on American badger from cultural resources management activities is low. This trend is expected to continue in the future.

Pesticide Use (CA-51). Pesticides used in the HCP area have not resulted in mortality or injury 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 badgers since it is conducted in the backdunes and Phillips 66 Leasehold where American badgers are more likely to occur. Specifically, aerial spraying has the potential to flush American badgers 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, the risk of disturbance effects on American badgers from helicopter pesticide applications is low. Overall, pesticide use benefits American badger by improving habitat for American badger in the HCP area.

Special-Status Plant Species

Special-status plant species include six HCP-covered species listed under CESA and/or FESA and an additional 22 species with California Rare Plant Rankings (CRPR) potentially effected by existing covered activities (see Table D-2). Suitable habitat for the six HCP covered species was mapped in the HCP area including 11 acres for marsh sandwort [*Arenaria paludicola*], 870 acres

for surf thistle [*Cirsium rhothophilum*], 870 acres for beach spectaclepod [*Dithyrea maritima*], 549 acres for La Graciosa thistle [*Cirsium scariosum* var. *loncholepis*], 117 acres for Nipomo Mesa lupine [*Lupinus nipomensis*], and 11 acres for Gambel's watercress [*Nasturtium gambelii*]). Suitable habitat for HCP covered species include specialized niches found in marshes and swamps (marsh sandwort, Gambles watercress) coastal bluff scrub and dunes (surf thistle, beach spectaclepod, Nipomo Mesa lupine), or more widely found habitat that include both aquatic and upland associated habitats (La Graciosa thistle). The additional 22 CRPR special-status species occur in similar habitat types as covered species described in the HCP; therefore, the similar covered activities described in the HCP would likely affect CRPR species. Special-status species have been documented in habitat within or surrounding Black Lake Canyon, Callander Dunes, Carpenter Creek, Coreopsis Hill, Dune Lake complex, Grover Beach, Jack Lake, Meadow Creek, Nipomo Mesa, Oso Flaco Lake, Pavilion Hill, Phillips 66 Leasehold, Pismo Dunes Natural Preserve, and Surprise Lake.

Existing covered activities occurring outside of special-status plant species habitats and/or that have no risk of affecting special-status plant species are dismissed from further discussion. Covered activities that have no effect on special-status plant species include Bicycling and Golfing (CA-4), Aerial or Wind Driven Activities (CA-9), SNPL and CLTE Management (CA-12a and CA-12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), WHPP Implementation (CA-18), Water Quality Monitoring Projects (CA-19), Campground Maintenance (CA-20), Trash Control (CA-22), Sand Ramp and Other Vehicular Access Maintenance (CA-24), Street Sweeping (CA-25), Ranger, Lifeguard and Park Aide Patrols (CA-32), American Safety Institute Courses (CA-35), Beach Concession (CA-36), Pismo State Beach Golf Course Operations (CA-37), Natural History/Interpretation Programs (CA-39), Motorized Vehicle Crossings of Creeks (CA-40), CDPR Management of Agricultural Lands (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

No existing covered activities have been identified that would have a high risk of effect on special-status plant species. Existing covered activities with low to moderate risk of affecting special plant species are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit special-status plant species include Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Dust Control Activities (CA-44), and Use of Pesticides (CA-51), which all result in improving habitat by planting native plants and removing invasive plants, and gathering useful information on these species.

See Table D-2 for the risk level of existing covered activities affecting special-status plants, as well as existing covered activities with beneficial effects on special-status plants.

Park Visitor Activities

Motorized Vehicle Recreation (CA-1) and Camping (CA-2). Motorized recreation and camping already occurs in the HCP area year-round on a daily basis within areas open to motorized recreation. A portion of the open riding is closed to motorized recreation and camping from March 1 through September 30 during the SNPL and CLTE breeding season. Effects on special-status plants due to motorized recreation and camping 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 known to contain special-status plant species. Although unlikely, some special-status plant species including, but not limited to, red sand verbena (*Abronia maritima*), Nuttall's

milkvetch (*Astragalus nuttallii* var. *nuttallii*), surf thistle, beach spectaclepod, Bochman's leafy daisy (*Erigeron blochmaniae*), suffrutescent wallflower (*Erysium suffrutescens*), dunedelion (*Malacothrix incana*), crisp monardella (*Monardella undulata* ssp. *crispa*), California spineflower (*Mucronea californica*), and Blochman's groundsel (*Senecio blochmaniae*) could occur within sand dune areas and/or areas with sparse vegetation open to motorized recreation and may go undetected. If special-status plant species occur in the areas where motorized recreation is allowed, these activities can crush or destroy special-status plant species individuals. However, motorized recreation and camping are considered to have a minimal direct effect on special-status plants to date due to lack of occurrences and suitable habitat in areas open to motorized recreation. As a result, the risk of mortality or injury effects on special-status plants is low. This trend is expected to remain the same in the future.

Disturbance to special-status plants due to motorized recreation and camping in the past have been difficult to assess and have not been documented in the open riding area. Numerous special-status plant species including the species listed above as well as Monterey Coast paintbrush (*Castilleja latifolia*), coastal goosefoot (*Chenopodium littoreum*), Douglas's spine flower (*Chorizanthe douglasii*), Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), Coast woolly-heads (*Nemacaulis denudate* var. *denudata*), South Coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*), and Hickman's popcorn flower (*Plagiobothrys chorisianus* var. *hickmanii*) have been observed in the vegetation islands within the open riding area. There is also mapped suitable habitat for La Graciosa thistle in the vegetation islands, a listed/covered species. Direct effects on special-status plants in the vegetation islands are not known to occur since these areas are fenced off and motorized recreation is prohibited from entering these areas. However, motorized vehicles adjacent to vegetation islands can destabilize substrates in the HCP area and, ultimately, result in increased erosion, especially during wind events. This destabilized material can coat vegetation and interfere with normal gas exchange, photosynthesis, or pollination. In addition, 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 affected area. Therefore, motorized recreation adjacent to vegetation islands can introduce invasive plants that compete with special-status plants in the area. There are no disturbance effects from camping since this activity is stationary and does not usually occur directly adjacent to the vegetation islands. The risk of disturbance effects on special-status plant individuals adjacent to motorized activities is low. This trend is expected to continue in the future.

Motorized vehicle recreation and camping in the open riding area degrades or modifies 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 and camping in the open riding area have likely kept some special-status plants from growing in the open-riding area and; therefore, has a low (camping) to moderate (motorized recreation) risk of effect on special-status plant species habitat within areas open to recreation. The risk of effects from camping are lower because it is stationary and affects a smaller area. This trend is expected to continue in the future.

Pedestrian Activities (CA-3). Pedestrians are allowed within the HCP area 24 hours a day and has had up to 670,000 day use visitors in a year. Listed/covered plants including beach spectaclepod, surf thistle, and La Graciosa thistle have the potential to occur in the vegetation islands and in other areas open to pedestrians near Oso Flaco Lake and South Oso Flaco. In addition to the special-status plant species listed above for Motorized Recreation (CA-1) and

Camping (CA-2), the following CRPR listed plant species have been recorded in areas open to pedestrians: Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), fuzzy prickly phlox (*Linanthus californicus* spp. *tomentosus*), and San Luis Obispo monardella (*Monardella undulata* ssp. *undulata*). Pedestrians walking through vegetation islands and the vegetation surrounding Oso Flaco Lake and South Oso Flaco can trample special-status plant individuals and disturb their habitat. Pedestrians can also facilitate the spread of invasive species, which could outcompete listed plant species. However, fencing is installed around vegetation islands, which often deters pedestrians from entering. In addition, vegetation in many of these areas is dense and pedestrians typically do not walk through vegetated areas. In addition, CDPR implements listed plant AMMs 1-6 to avoid or minimize effects on listed plants from pedestrians. For example, if listed/covered plant populations are found where pedestrian use is heavy, fencing and educational signage will continue to be utilized to protect listed species. Informal trails entering listed plant habitats will also continue to be closed and restored to pre-trail conditions to avoid negative effects on listed plant and other special-status plant species from pedestrians. Many other special-status plants in the HCP area are locally common and/or there is abundant suitable habitat in the HCP area, such that pedestrian activities may affect individuals but would not affect the overall population. As a result, the risk of effects on special-status plants from pedestrians is low. This trend is expected to continue in the future.

Fishing (CA-5) and Boating/Surfing (CA-8). Fishing and boating/surfing are allowed within the HCP area year-round. Shore fishing and boating/surfing within the ocean does not affect special-status plant species since these activities occur in the open ocean or 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 boating can occur within Oso Flaco Lake where listed plant species, including marsh sandwort, La Graciosa thistle, and Gambel's watercress are known to or have potential to occur. Most CRPR listed plants in the HCP area occur in upland habitats and are unlikely to be affected by fishing or boating, although Southwestern spiny rush and Hickman's popcorn flower do occur in wet habitats and could occur on the edges of Oso Flaco Lake. Effects 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 affected area. Invasive species could outcompete special-status plant species. Fish consumption advisories are posted at Oso Flaco Lake due to high levels of pesticides. As a result, fishing and boating in Oso Flaco Lake are not regular activities. In addition, known listed plant populations are flagged and/or fenced to prevent effects. As a result, the risk of effects on special-status plants from fishing and boating is low. This trend is expected to continue in the future.

Dog Walking (CA-6). Dogs (other than service dogs) are not allowed in the vegetation islands, Dunes Preserve or Oso Flaco area. Therefore, special-status plant species in these areas are not affected by dogs. Listed plants are unlikely to be affected since there are no known occurrences where dogs are allowed. Red sand verbena, Nuttall's milkvetch, Bochman's leafy daisy, suffrutescent wallflower, Southwestern spiny rush, dunedelion, crisp monardella, California spineflower, and Blochman's groundsel could occur in areas open to dog walking. Effects on special-status plants in areas where dogs are allowed are similar to pedestrian activities (described above) since all dogs are required to be kept on a leash and with their owner at all times. As a result, the risk of mortality, injury, or disturbance effects on special-status plants from dog walking is low. This trend is expected to continue in the future.

Equestrian Recreation (CA-7). Effects on special-status plants due to equestrian recreation have been difficult to assess in the past, and they have not been documented in the HCP area. Equestrians use the beaches and trails in the HCP area, including the Dunes Preserve. Equestrians traveling through the Dunes Preserve disturb designated La Graciosa thistle critical habitat and other suitable La Graciosa thistle habitat in the HCP area. Additional special-status plant species that could be affected by equestrian recreation include the species listed under Dog Walking (CA-3) above as well as species recorded in the Dunes Preserve- Monterey Coast paintbrush, Kellog's horkelia, fuzzy prickly phlox, and San Luis Obispo monardella. However, to date, equestrians traveling through these areas have typically stayed on sandy trails and have rarely traveled off-trail, and this is expected to remain the same in the future. As a result, the risk of effects on special-status plants from equestrians is low. This trend is expected to continue in the future.

Effects on La Graciosa thistle critical habitat are described in the section below.

Holidays (CA-10) and Special Events (CA-11). In accordance with the Oceano Dunes CDP (CDP-4-82-300-A5), Oceano Dunes SVRA does not allow additional vehicles to enter the HCP area on holidays or for special events. Therefore, no additional effects on special-status plants occur from motorized recreation on holidays or special events. Effects on holidays and special events from non-motorized recreation are similar to those described above for Camping (CA-2) and Pedestrian Activities (CA-3), although the risk of effects may increase during high visitor use. Special Event permits do not authorize activities to occur in areas that would otherwise be closed to visitors; therefore, no additional effects from non-motorized and motorized activities occur in special-status plant habitat that is typically off limits to visitors. CDPR also increases patrols during holidays and special events to increase enforcement and prevent effects on covered species and other natural resources, including special-status plants. As a result, the risk of mortality, injury, or disturbance effects on special-status plants during holidays and special events remains low (non-motorized recreation, motorized recreation for most special-status plants) to moderate (motorized recreation for some special-status plant species). This trend is expected to continue in the future.

Natural Resources Management

Listed Plant Management (CA-15). The Oceano Dunes District manages and restores vegetation in areas occupied or potentially occupied by listed plant species to benefit these and other native species. These management measures include monitoring and enhancing habitat for listed plant species populations, including removing invasive species and monitoring the response of the listed plant species to habitat restoration.

Monitoring and habitat enhancement activities provide a net benefit for the listed plant species and other special-status plants that share their habitat (which may include all special-status plant species known to occur in the HCP area); however, some listed plant individuals could be affected during these activities. A listed plant could be inadvertently missed during monitoring and pre-restoration surveys and could be stepped on by field survey crews or work crews. Similar effects on other special-status plants that share the same habitat as listed plants. To reduce these effects, CDPR implements listed plant AMMs 7-12. For example, CDPR conducts annual surveys for listed plant species. In addition, biologists limit the amount of time they spend in occupied habitat to reduce the risk of trampling a listed plant and other special-status plant species. As a result, the risk of effects on special-status plants from these activities is low. This trend is expected to continue in the future.

Prescribed fire is used infrequently to manage invasive plant species in the foredunes and can present a threat to La Graciosa thistle, beach spectaclepod, and surf thistle, as well as other special-status plants that could occur in the foredunes including red sand verbena, Nuttall's milkvetch, Bochman's leafy daisy, suffrutescent wallflower, dunedelion, crisp monardella, California spineflower, and Blochman's groundsel. Areas occupied by marsh sandwort, Gambel's watercress, and Nipomo Mesa lupine do not receive prescribed fire treatments and, therefore, these species and other special-status species that share their habitat are not be affected by prescribed fire activities. While conducting prescribed fire activities, La Graciosa thistle, beach spectaclepod, and surf thistle could be damaged or burned, despite best efforts to exclude the fire from the occupied listed plant habitat. To reduce these effects, CDPR implements listed plant AMMs 13-16. For example, CDPR marks listed plant species and establishes a fire line of mineral soils around known populations, and a trained botanist remains on site during all fire activities. In addition, heavy equipment, including fire engines, are required to stay out of sensitive habitat, and locations for the placement and staging of heavy equipment are clearly marked on a map. Small numbers of CRPR listed plants may still be killed or injured in prescribed fires, but the fires are localized, many of these species are locally common, and are not expected to affect the overall populations of these species in the HCP area. As a result, the risk of effects on special-status plants from fire treatments is low. This trend is expected to continue in the future.

Overall, monitoring, propagation, experimental outplanting, and habitat enhancement activities provide a net benefit for the listed plants and other special-status plants that share their habitat by removing invasive weedy species, thereby reducing competition from these species for space, light, water, and nutrients. This trend is expected to continue in the future.

Impacts of proposed listed plant propagation and outplanting on special-status plants are addressed in EIR section 6.4.1.13.

Habitat Restoration Program (CA-16). Yearly vegetation planting is considered to have low potential to directly or indirectly affect special-status plant species because vegetation projects typically occur in areas with bare sand that do not support special-status plant species or in previously restored sites that are not known to contain special-status plant species. If special-status plant individuals are present, they could be trampled during vegetation planting activities, but vegetation is primarily planted adjacent to existing vegetated areas, including vegetation islands, and is not planted immediately in areas that could be occupied by special-status plants. Therefore, the risk of damaging existing special-status plant populations is low. To avoid or minimize effects on listed plants, CDPR implements listed plant AMMs 17-19. In addition, vegetation 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 outcompete existing special-status plant species. In addition, plant materials from local genetic stock are used to minimize the chance of introducing plants not adapted to local conditions. As a result, the risk of effects on special-status plants from restoration planting is low. This trend is expected to continue in the future.

Seed collection for restoration can occur in areas within or near special-status plant habitat. Therefore, special-status plant species can be inadvertently trampled while collecting seeds. However, seed collection is conducted by experienced Natural Resource staff and/or botanists who know the location of the listed plant species as well as how to identify other special-status plants species and avoid them if feasible. As a result, the risk of effects on special-status plants from seed collection is low. This trend is expected to continue in the future.

Habitat restoration has a beneficial effect on special-status plants overall by providing additional suitable habitat for special-status plants. All special-status plant species in the HCP area could benefit except for marsh sandwort and Gambel's watercress, which don't occur in areas where these habitat restoration activities occur. This trend is expected to continue in the future.

Impacts of proposed dune slack restoration and CalVTP on special-status plants are addressed in EIR sections 6.3.2.13 and 6.4.1.13.

Invasive Plant and Animal Control (CA-17). Effects on special-status plant species from invasive plant and animal control are similar to those described above for Listed Plant Management (CA-15). The greatest threats during these activities are trampling, inadvertent spraying, and physical disruption to special-status plants while manually removing invasive vegetation. To avoid or minimize effects on listed plants, CDPR implements listed plant AMMs 20-24. For example, pre-project surveys, buffer zones, and hand pulling methods will continue to be utilized to avoid any unnecessary effects on listed plants. In addition, a qualified biologist/Natural Resource staff will be present at all phases of the work and will be responsible for work crew education; conduct regular inspection of marked populations of listed species to ensure that they remain marked and clearly visible to work crews; and monitor work crews to ensure that they are observing the precautions and prohibitions regarding avoiding damage to listed plant species. They will also have the authority and responsibility of stopping work if unanticipated damage to listed species is occurring. Small numbers of CRPR listed plants may still be damaged, but many of these species are locally common, and invasive plant and animal control is not expected to affect the overall populations of these species in the HCP area. As a result, the risk of effects on special-status plants species from invasive plant and animal control is low. This trend is expected to continue in the future.

Invasive plant control is expected to benefit special-status plants overall by improving habitat.

Impacts of proposed invasive aquatic predator control on special-status plants are addressed in EIR section 6.3.2.13.

Park Maintenance

General Facilities Maintenance (CA-21), Wind Fencing (CA-23), Perimeter and Vegetation Island Fencing (CA-27), Cable Fence Maintenance (CA-28), and Minor grading (CA-30). These activities occur primarily in open sand or high recreational use areas that are unlikely to support special-status plants. Some locally common special-status plant species and special-status plant species adapted to open sand could occur in areas where these activities occur, see the description of CA-1 for a list of species that may occur in open sand areas and in the vegetation islands where vegetation island fencing occurs. Although unlikely, these activities could damage or remove individual special-status plants or temporarily disturb habitat. Listed plants are not expected to be affected due to a lack of known occurrences in areas where these activities usually occur. Small numbers of CRPR listed plants may still be damaged, but many of these species are locally common, and these activities are not expected to affect the overall populations of these species in the HCP area. As a result, the risk of effects on special-status plants species from these park maintenance activities is low. This trend is expected to continue in the future.

Routine Riparian Maintenance (CA-26). The Oceano Dunes District protects riparian habitat by maintaining roads, culverts, spillways, trees and shrubs, and controlling emergent species and invasive species populations within riparian corridors in the HCP area. Routine riparian maintenance has not resulted in the loss of listed plant species to date. Listed plants, including marsh sandwort, Gambel's watercress, La Graciosa thistle, and beach spectaclepod are, however,

known to occur at some or all of the routine riparian maintenance locations. Monterey Coast paintbrush, Southwestern spiny rush, and dunedelion have also been recorded near creeks in the HCP area. Therefore, riparian maintenance has the potential to directly affect special-status plant species if they occur in an area designated for maintenance activities. However, CDPR implements listed plant AMM 25, which includes conducting pre-activity surveys annually prior to commencing activities, flagging the area that supports the species, and avoiding flagged areas (HCP section 4.10.2.3.2). CDPR also follows all measures in their existing Lake and Streambed Alteration Agreement from the CDFW. As a result, the risk of effects on special-status plants is low. This trend is expected to continue in the future.

To date, marsh sandwort and/or Gambel's watercress have not been observed within the Oso Flaco Lake culvert. However, the possibility exists that either marsh sandwort or Gambel's watercress could be attached to plants or root balls that are clogging the culvert. Should this happen, it will require the plant to be removed from the culvert. Every effort is made to identify listed 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. Any removal or salvage of Gambel's watercress or marsh sandwort would require consultation with the USFWS and/or CDFW prior to implementation. In addition, any listed plant left in the culvert will likely be damaged because of high flows. As a result, any Gambel's watercress or marsh sandwort individuals that are blocking the culvert will be lost regardless of maintenance activities. Although marsh sandwort or Gambel's watercress will be salvaged if possible, some individuals could be lost. As a result, the risk of effects on marsh sandwort and Gambel's watercress is moderate. This trend is expected to continue in the future.

Heavy equipment response (CA-29). Heavy equipment (e.g., tractors, loaders) response is used throughout the HCP area, as needed, for things such as removing stranded vehicles to burying deceased marine life. Heavy equipment response does not occur within open water habitat; therefore, Gambel's watercress and marsh sandwort are not affected. Heavy equipment response is also unlikely to occur in the Phillips 66 leasehold and therefore is unlikely to affect special-status plant species that only occur there, such as Nipomo Mesa lupine and others. All other special-status plants in the HCP area can be directly harmed during a heavy equipment response in occupied habitat. These plants can be driven over or crushed by vehicles or attendant personnel and habitat can be temporarily damaged. To reduce any effects on listed plants from heavy equipment response, CDPR will continue to implement AMMs as a component of utilizing heavy equipment, including conducting pre-activity surveys, as determined to be necessary by a qualified biologist/Natural Resource staff, and flagging areas that support plant species. In addition, heavy equipment response operations are extremely rare in areas where listed plants occur; thus, the effect of these operations on listed plants is considered minimal. Small numbers of CRPR listed plants may still be damaged or removed, but many of these species are locally common, and heavy equipment response is not expected to affect the overall populations of these species in the HCP area. As a result, the risk of effects on special-status plants species from heavy equipment response is low. This trend is expected to continue in the future.

Boardwalk and Other Pedestrian Access Maintenance (CA-31). Boardwalk and other pedestrian access maintenance occur within the HCP area once a year. There are no boardwalks or pedestrian access points in the Phillips 66 Leasehold or South Oso Flaco, so no effects on special-status plants that only occur in these areas. Likewise, these activities do not occur in

aquatic habitat and thus no effects on aquatic species such as marsh sandwort and Gambel's watercress occur. Special-status plant species are not typically located directly adjacent to these areas. However, if any special-status plant species occupy habitat requiring clearing for pedestrian access purposes, they could potentially be damaged and/or removed or trampling by field crews. However, most work only includes trimming vegetation encroaching on footpaths with hand tools; therefore, special-status plants are unlikely to be effected since they would not be expected to be encroaching on the boardwalks or trails. In addition, any damage to habitat is expected to be minor and temporary as a result of foot traffic in the area. Effects on listed plants will continue to be avoided through the implementation of listed plant AMMs. Specifically, CDPR will continue to conduct pre-activity surveys and flagging areas that support listed plant species; thus, the potential effect of these operations on listed plants will continue to be minimal. Small numbers of CRPR listed plants may still be damaged, but many of these species are locally common, and boardwalk maintenance is not expected to affect the overall populations of these species in the HCP area. As a result, the risk of effects on special-status plants from boardwalk maintenance is low. This trend is expected to continue in the future.

Demolition and installation of a replacement boardwalk in upland habitats has potential to directly and indirectly affect special-status plant species. Project activities such as grading and excavation activities could have both direct and indirect effects on special-status plants that might 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, soil disturbance, and worker foot traffic may result in the injury or mortality of individual special-status plants. Excavation and grading activities may result in the mechanical or physical removal of vegetation and modification of the seed bank due to grading or disturbance. To minimize these effects, prior to any replacement activities, botanical surveys are conducted in the area, and any listed plants will be flagged and protected from disturbance. Small numbers of CRPR listed plants may still be damaged or removed, but many of these species are locally common, and boardwalk replacement is not expected to affect the overall populations of these species in the HCP area. As a result, the risk of effects on special-status plants from boardwalk replacement is low.

Project activities may also cause an increase in invasive plant cover. Invasive plants degrade habitat quality for native plants and animals by altering vegetative structure and/or outcompeting native plants. However, CDPR actively removes invasive plants from the HCP area as part of the Invasive Plant and Animal Control (CA-17). As a result, the risk of indirect effects on special-status plants from boardwalk replacement is low.

Visitor Services

Emergency Response by CDPR Staff (CA-33) and Access by Non-CDPR Vehicles (CA-34). It is necessary from time to time for law enforcement and/or medical aid to respond to an emergency. Emergency response activities already occur within the HCP area and can occur anywhere where an emergency response is required. Emergency response activities require a quick response for public safety; therefore, protection of natural resources may not be possible during an emergency response and it is possible, but highly unlikely, individual plants or patches of plants could be crushed. Special-status plants that occur only in the Phillips 66 Leasehold are unlikely to be affected since there is no public access so emergency response is unlikely to be needed there, but all other special-status plant species in the HCP area could be affected. Within the HCP area, emergency response activities within known special-status plant species habitats are unlikely and destruction of sensitive habitat has not been documented to date. As a result, the potential risk of

habitat effects on special-status plants from emergency response is low. This trend is expected to continue in the future.

Other Activities

Dust Control Activities (CA-44). Dust control activities currently occur in the HCP area, although they don't occur in aquatic habitat or in the Phillips 66 Leasehold so marsh sandwort, Gambel's watercress, and species found only in the Leasehold are not affected. Dust control activities can directly affect all other special-status plant species in the HCP area and their habitat. Direct effects include trampling or removing special-status plants during work activities. Habitat effects include habitat alteration caused by changing species composition as a result of altered wind, sand transport, or moisture content. The potential magnitude of effects on special-status plants and their habitat varies depending on where activities take place. However, dust control project requirements identified in the Dust Control Program MMRP (CDPR 2017) include mitigation measures, such as conducting pre-work surveys for special-status plants within 100 feet of the work areas, flagging and protection for special-status plants, establishment of 25-foot avoidance areas around special-status plants, and restoration of disturbed habitat to avoid effects on special-status plant species. In addition, planting of native dune vegetation for dust control activities likely benefits special-status plants overall by providing suitable habitat. Therefore, there is low risk of effects on special-status plants from dust control activities.

Impacts from future dust control activities on special-status plants are discussed in EIR section 6.4.1.13.

Cultural Resources Management (CA-45). Cultural resources management does not occur within the HCP area aquatic habitats (e.g., Arroyo Grande Creek, Oso Flaco Lake, Pismo Creek); therefore, special-status plants found in aquatic habitat (e.g., Gambel's watercress and marsh sandwort) are not affected by these activities. Cultural resources management currently occurs in terrestrial habitats in the HCP area and is not known to have directly affected special-status plants to date. However, cultural resource sites have been located in areas adjacent to known occurrences of special-status plants. To minimize the potential to affect listed plants, as part of their Listed Plant AMMs, prior to the start of any cultural resources management activities adjacent to listed plant species habitat, a CDPR biologist flags and/or fences the work area and ensures any nearby special-status plant habitat is avoided. Small numbers of CRPR listed plants may still be damaged, but many of these species are locally common, and cultural resources management is not expected to affect the overall populations of these species in the HCP area. However, Plant populations will continue to be restored if a cultural resource project disturbs or destroys a plant population (Listed Plant AMM 27). Therefore, the risk of mortality, injury, disturbance, or habitat effects on special-status plant species from cultural resources management activities is low. This trend is expected to continue in the future.

Use of Pesticides (CA-51). Herbicide use by aerial spraying may affect non-target, native vegetation, including special-status plant species. Truck mounted spraying and manual removal does not 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. CDPR implements Listed Plant AMMs 28-39 to avoid and minimize effects on listed plants, which also helps protect other special-status plant species. For example, for any weed control

activities, listed plants are flagged and avoided. Herbicide application does not occur during inclement weather to reduce effects on non-target vegetation, including special-status species. In addition, only trained applicators accompanied by a qualified botanist/Natural Resource staff 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 considers wind speed and moisture in the air to reduce the potential of transfer of herbicide to non-target plants. However, the risk of mortality, injury, disturbance, or habitat effects on special-status plants from herbicide use remain moderate due to the possibility of non-target effects and changes to habitat. However, the application of herbicides benefits special-status plants overall by reducing non-native vegetation and allowing for expansion of native plant communities that could support special-status plants. This trend is expected to continue in the future.

Sensitive Natural Communities

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

Critical habitat designated by the USFWS is present within the HCP area, including for SNPL, tidewater goby, and La Graciosa thistle. Effects on designated critical habitat from existing covered activities are discussed in each species' representative section.

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

Existing covered activities occurring outside sensitive natural communities and/or that have no risk of affecting sensitive natural communities are dismissed from further discussion. Covered activities with no effects on sensitive natural communities include Golfing (CA-4), Boating/Surfing (CA-8), Aerial/Wind-Driven Activities (CA-9), Campground Maintenance (CA-20), Street Sweeping (CA-25), Pismo State Beach Golf Course Operations (CA-37), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47). Some existing covered activities can occur in sensitive natural communities; however, the frequency or severity of many park visitor activities, natural resource management activities, park maintenance activities, and/or visitor services do not result in an elevated risk that substantially removes or destroys sensitive natural vegetation communities and/or result in no or

minimal effects on 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), Herpetological Monitoring and Management (CA-14), General Facilities Maintenance (CA-21), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Boardwalk/other Pedestrian Maintenance (CA-31), Ranger, Lifeguard, and Park Aide Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), ASI Courses (CA-35), Beach Concessions (CA-36), Natural History and Interpretation Programs (CA-39), Motorized Crossing of Creeks (CA-40), and Cultural Resources Management (CA-45).

No existing covered activities have been identified that would have a high risk of effects on sensitive natural communities. Existing covered activities with low risk of affecting sensitive natural communities are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit special-status plant species include Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), and Water Quality Monitoring (CA-19). These activities improve habitat by planting native plants, improving water quality, mapping and removing invasive plants, and ultimately restoring native vegetation and sensitive natural communities in the HCP area. Trash Control (CA-22) results in a net benefit to sensitive communities by removing trash and litter that could degrade sensitive natural communities. Perimeter and Vegetation Island Fencing (CA-27) and Cable Fence Maintenance (CA-28) also benefit sensitive natural communities by restricting vehicles from entering native vegetation areas and/or driving out of the HCP area into off-site sensitive areas. Because these activities have no or minimal adverse effects on any riparian habitat or sensitive natural community they are dismissed from further discussion.

Impacts from proposed new and future covered activities on sensitive natural communities are discussed in EIR sections 6.3.3 and 6.4.2.

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). Park visitor activities, including motorized recreation, camping, pedestrian activities, and equestrian recreation, can alter vegetation within sensitive natural communities. Visitors can leave trash or other debris that may attract predators, degrade habitat, or promote continued negative use of the area. Motorized recreation can runover vegetation and prevent vegetation from establishing in areas open to motorized recreation. Campers, pedestrians, and horses can trample vegetation and/or disturb soils making them less suitable for native vegetation. Recreationists can also introduce non-native, invasive plant species that can outcompete native vegetation, thus changing the composition of natural communities. These effects 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. Law enforcement continually patrols increasing the frequency during period of higher visitor use to ensure exclusion areas, trash control and other AMMs are enforced. As a result, the risk of habitat effects and disturbance effects on sensitive natural communities from these activities is low. This trend is expected to continue in the future.

Park Maintenance

Routine Riparian Maintenance (CA-26). Routine riparian maintenance includes maintenance of 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 and Streambed Alteration Agreement (LSAA 1600-2012-0001-R4) for these activities in compliance with Section 1600 of the California Fish and Game Code. The LSAA includes measures to protect riparian vegetation including limiting 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, the risk of habitat effects and disturbance effects on riparian vegetation and other sensitive natural communities is low. This trend is expected to continue in the future.

Other Activities

Dust Control (CA-44). Dust control activities can disturb or affect sensitive natural communities, including by altering habitat (e.g., changing species composition as a result of altered wind, sand transport, or moisture content). The magnitude of effects on sensitive natural communities varies depending on where activities take place. In general, effects on sensitive natural communities 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 parts of the program area within the Phillips 66 leasehold area, The effects on sensitive natural communities increase. Some dust control activities (e.g., deployment of temporary monitoring sites) require a small area (e.g., less than 0.5 acre) of native vegetation removal. However, dust control project requirements identified in the Dust Control Program MMRP (CDPR 2017) include mitigation measures, such as affecting the minimum area necessary and clearly defining the project boundary. In addition, planting native dune vegetation for dust control activities generally benefits the sensitive natural communities within the dune system. Therefore, the risk of habitat effects and disturbance effects on sensitive natural communities from dust control activities is low.

Impacts from future dust control activities on sensitive natural communities are discussed in EIR section 6.4.2.

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 communities where invasive plant species are prevalent. Herbicide used by aerial spraying, truck mounted spraying, and manual removal may affect 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 effects on 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 considers 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, the risk of habitat effects and disturbance effects from herbicide application is low. Overall, the use of herbicides results in reduced non-native vegetation and allow for expansion of native plant communities; therefore, herbicide application results in a net benefit to native vegetation, including sensitive natural communities. This trend is expected to continue in the future.

Jurisdictional Waters and 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 (CWA) and the state government under the CWA, Porter-Cologne Water Quality Control Act, and the California Coastal Act. Jurisdictional waters essentially include all aquatic features, although the extent of jurisdiction varies by agency. Wetlands are defined by the federal government as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b)).

Aquatic features in the HCP area include Pismo Creek, Carpenter Creek, Meadow Creek, Arroyo Grande Creek, and Oso Flaco Creek. The HCP area also contains Oso Flaco Lake, Pismo Lake, and occasional slack lakes in the dunes. Wetlands can occur in or near any of these aquatic features in any particular year. Wetland habitat is perennially present along the margins of the lakes. Wetland alliances also occur in the vegetated islands, the foredunes and backdunes, in South Oso Flaco, in the Pismo State Beach area, the North Beach Campground area, and the Phillips 66 Leasehold. According to CDPR vegetation mapping conducted in 2022 and updated in 2024, the HCP area includes the following wetland alliances: arroyo willow thickets (449.4 acres), salmon berry – wax myrtle scrub (31.8 acres), California bulrush marsh (40.9 acres), salt rush swales (5.6 acres), cattail marshes (2.5 acres), pickleweed mats (1.2 acre), and sometimes black cottonwood forest and woodland (11.9 acres) and sea rocket sands (12.2 acres).

Existing covered activities occurring outside jurisdictional waters and/or that have no risk of affecting jurisdictional waters are dismissed from further discussion. Covered activities with no effects on jurisdictional waters include Camping (CA-2), Bicycling and Golfing (CA-4), Special Events (CA-11), SNPL and CLTE Management (CA-12a and 12b), Habitat Restoration Program (CA-16), Campground Maintenance (CA-20), General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Boardwalk/other Pedestrian Maintenance (CA-31), Ranger, Lifeguard, and Park Aide Patrols (CA-32), ASI Courses (CA-35), Beach Concessions (CA-36), Natural History and Interpretation Programs (CA-39), Dust Control Activities (CA-44), Cultural Resources Management (CA-45), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47).

Some existing covered activities may occur in or adjacent to jurisdictional waters, including wetlands, creeks, lakes, and/or the ocean. However, many of these activities are associated with

park visitor activities, natural resource management activities, park maintenance activities, and/or visitor services cause temporary effects (e.g., increased turbidity) that lack frequency or severity that would result in removing or destroying aquatic resources. Therefore, these covered activities 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), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), Water Quality and Monitoring (CA-19), Cable Fence Maintenance (CA-28), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), Pismo State Beach Golf Course Operations (CA-37), and Motorized Vehicle Crossing of Creeks (CA-40). Because these activities are not subject to federal or state jurisdiction and do not have the risk of substantially affecting federally or state protected wetlands, they are dismissed from further discussion.

No existing covered activities have been identified that would have a moderate or high risk of effect on jurisdictional waters. Existing covered activities with low risk of affecting jurisdictional waters are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit jurisdictional waters include Invasive Plant and Animal Control (CA-17), and Water Quality Monitoring (CA-19). These activities protect jurisdictional waters by preventing encroachment by invasive plants and animals and improving water quality. Trash Control (CA-22) results in a net benefit to jurisdictional by removing trash and litter that could pollute jurisdictional waters. Perimeter and Vegetation Island Fencing (CA-27) and Cable Fence Maintenance (CA-28) also benefit jurisdictional waters by restricting vehicles from entering native vegetation areas and/or sensitive areas, including jurisdictional waters.

Impacts from proposed new and future covered activities on jurisdictional waters are discussed in EIR sections 6.3.4 and 6.4.3.

Park Maintenance

Routine Riparian Maintenance (CA-26). Routine riparian maintenance activities affect 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, the risk of disturbance effects on jurisdictional waters from routine riparian maintenance is low. This trend is expected to continue in the future.

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 of waterbodies to reduce effects on 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 effects from drift. In addition, only trained

applicators apply herbicides and all label rates and other CDPR standard practices are followed. Timing of herbicide application considers 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. In addition, use of herbicides to control invasive aquatic plants benefits jurisdictional waters and habitats overall. As a result, the risk of disturbance or habitat effects on aquatic resources from pesticide use is low. This trend is expected to continue in the future.

Wildlife Movement and Nursery Sites

The 5,005-acre HCP area includes ample area for wildlife movement and nursery sites along the coast, particularly when viewed in the greater setting. The HCP area is bounded by the City of Pismo Beach to the north, the Guadalupe-Nipomo Dunes 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 extends from Pismo Beach south to Point Sal and roughly from State Route 1 to the Pacific Ocean in San Luis Obispo and Santa Barbara counties. The Guadalupe-Nipomo Dunes complex is a relatively intact coastal dune and dune scrub ecosystem varying in width from 2 to 5 miles.

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

No existing covered activities have been identified that would have a moderate or high risk of effect on wildlife movement and nursery sites. Existing covered activities with low risk of affecting wildlife movement and nursery sites are described below and are part of the baseline environmental conditions. Existing covered activities that may benefit wildlife movement and nursery sites include SNPL and CLTE Management (CA-12a and 12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), and Water Quality Monitoring projects (CA-19), Routine Riparian Maintenance (CA-26), Dust Control Activities (CA-44), and Use of Pesticides (CA-51). These activities benefit wildlife movement and nursery sites overall by monitoring, enhancing, and/or managing upland and aquatic habitats that provide wildlife movement connectivity and habitats for nursery sites, controlling invasive species that may encroach on

wildlife movement corridors or nursery sites, and planting vegetation to provide new wildlife movement and nursery site habitat.

Park Visitor Activities

Motorized Recreation (CA-1), Camping (CA-2), Pedestrian Activities (CA-3), Bicycling and Golfing (CA-4), Fishing (CA-5), Dog Walking (CA-6), Equestrian Recreation (CA-7), Boating / Surfing (CA-9), Aerial/Wind-Driven Activities (CA-9), Holidays (CA-10), and Special Events (CA-11). Park visitor activities are recreational uses that generally do not involve activities that restrict wildlife movement. Existing covered activities likely result in disturbance effects that can disrupt the normal behavior patterns of wildlife species in the HCP area. Permanent loss or reduction in quality of 1 or more acre of tertiary (rarely used) habitat or temporary disturbance to habitat may occur from more widely dispersed activities such as Motorized Recreation (CA-1). Motorized recreation deters wildlife from moving through areas open to motorized use, including small and large mammals, birds, reptiles, and amphibians. Effects on wildlife movement may occur from activities that are more concentrated in a particular area such as Camping (CA-2), Fishing (CA-5), or Special Events (CA-11). However, these effects are temporary, are not substantial, and do not cause the population decline of any wildlife species in the HCP area. CDPR implements AMMs that include exclusion fencing of sensitive areas, vehicle speed limits, education, dog leash laws, and trash management to avoid and minimize potential effects on wildlife movement and nursery sites.

Park visitor activities are typically concentrated along easily accessible public use areas including roads, trails, or campgrounds with high levels of existing anthropogenic disturbance that reduces wildlife connectivity, linkages, or likelihood for high-quality nursery habitat. On a landscape scale, the greater Guadalupe-Nipomo Dunes complex, which includes the HCP area, provides movement opportunities and nursery sites for wildlife over a large swath of intact coastal dunes and dune scrub habitat where human presence and other anthropogenic effects are low. Based on the implementation of existing AMMs, concentrated nature of park visitor activities in context with the broader landscape baseline conditions, the risk of disturbance and habitat effects from park visitor activities on wildlife movement and nursery sites is low.

Natural Resources Management

SNPL and CLTE Management (CA-12a and 12b), Tidewater Goby and Salmonid Surveys (CA-13), Herpetological Monitoring and Management (CA-14), Listed Plant Management (CA-15), Habitat Restoration Program (CA-16), Invasive Plant and Animal Control (CA-17), WHPP Implementation (CA-18), and Water Quality Monitoring projects (CA-19). Natural resources management activities could deter wildlife movement or disturb nursery sites in work areas in the short term. However, such effects are localized and temporary. In addition, CDPR implements AMMs prior to and during natural resources management activities to avoid and minimize effects on covered species, some of which also help protect wildlife movement and nursery sites. As a result, the risk of disturbance effects on wildlife movement and nursery sites from existing natural resources management is low. Natural resources management activities benefit wildlife movement and nursery sites overall by monitoring, enhancing, and/or managing upland and aquatic habitats that provide wildlife movement connectivity and corridors and habitats for nursery sites. This trend is expected to continue in the future.

Impacts from proposed new and future natural resources management activities on wildlife movement and nursery sites are discussed in EIR sections 6.3.5 and 6.4.4.

Park Maintenance and Visitor Services

Campground Maintenance (CA-20), General Facilities Maintenance (CA-21), Trash Control (CA-22), Wind Fencing (CA-23), Sand Ramp and Other Vehicle Access Maintenance (CA-24), Street Sweeping (CA-25), Perimeter and Vegetation Island Fencing (CA-27), Heavy Equipment Response (CA-29), Minor Grading (CA-30), Boardwalk/other Pedestrian Maintenance (CA-31), Ranger, Lifeguard, and Park Aide Patrols (CA-32), Emergency Response (CA-33), Access by Non-CDPR Vehicles (CA-34), ASI Courses (CA-35), Beach Concessions (CA-36), Pismo State Beach Golf Course Operations (CA-37), and Natural History and Interpretation Programs (CA-39). These park maintenance and visitor services activities occur primarily in developed or heavy recreational use areas where wildlife is already deterred from moving through or breeding in the area, except for species adapted to urban areas and/or tolerant of a high level of human disturbance. These activities do not create permanent barriers to wildlife movement within the HCP area. Most park maintenance and visitor services activities are temporary and relatively short in duration and only deter wildlife from moving through the area during the period of disturbance. In addition, CDPR implements AMMs prior to and during park maintenance and visitor services activities to avoid and minimize effects on covered species, some of which also help protect wildlife movement and nursery sites. As a result, the risk of disturbance effects on wildlife movement and nursery sites from these park maintenance and visitor services activities is low. This trend is expected to continue in the future.

Impacts of proposed mechanical trash removal on wildlife movement and nursery sites are addressed in EIR section 6.3.5.

Routine Riparian Maintenance (CA-26). Routine riparian maintenance includes maintenance of 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. These lakes and riparian corridors can provide movement corridors and nursery sites for aquatic and riparian wildlife. CDPR currently has a Lake and Streambed Alteration Agreement (LSAA 1600-2012-0001-R4) for these activities in compliance with Section 1600 of the California Fish and Game Code. The LSAA includes measures to protect wildlife movement and nursery sites including pre-activity surveys for SWPT and CRLF, conducting work outside of the nesting bird season or pre-activity nesting bird surveys, and water quality protection measures. As a result, the risk of effects on wildlife movement and nursery sites from routine riparian maintenance is low. Routine riparian maintenance benefits wildlife movement and nursery sites overall by removing invasive and emergent plants that impede movement and breeding of aquatic wildlife. This trend is expected to continue in the future.

Other Activities

Motorized Vehicle Crossing of Creeks (CA-40), Cultural Resources Management (CA-45), CDPR Agricultural Land Management (CA-46), and Maintenance of a Bioreactor on Agricultural Lands (CA-47). These activities occur primarily in developed or heavy recreational use areas where wildlife is already deterred from moving through or breeding in the area, except for species adapted to urban areas and/or tolerant of a high level of human disturbance. These activities do not create permanent barriers to wildlife movement within the HCP area. These activities are temporary and relatively short in duration and only deter wildlife from moving through the area during the period of disturbance. In addition, CDPR implements AMMs prior to and during these activities to avoid and minimize effects on covered species, some of which also

help protect wildlife movement and nursery sites. As a result, the risk of effects on wildlife movement and nursery sites from these activities is low. This trend is expected to continue in the future.

Dust Control Activities (CA-44). Dust control activities do not substantially interfere with the movement of native fish or wildlife species or established wildlife corridors or impede the use of native wildlife nursery sites because activities are installed on open sand areas and do not represent a substantial barrier to wildlife migration or movement. Dust control activities may temporarily deter wildlife from moving through the work area during implementation, but this effect is localized and short in duration. Dust control project requirements identified in the Dust Control Program MMRP (CDPR 2017) include mitigation measures to protect wildlife nursery sites during implementation of dust control activities. Vegetation planting for dust control activities has likely benefitted wildlife movement and nursery sites overall by providing additional cover for movement and habitat for breeding for some species of wildlife. This trend is expected to continue in the future.

Impacts from future dust control activities on wildlife movement and nursery sites are discussed in EIR section 6.4.4.

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. Use of pesticides could deter wildlife from moving through the work area during application, and contamination of non-target areas could affect wildlife nursery sites if they are present in the contaminated area. Contamination of nontarget areas from pesticide application can occur from application drift, rainfall runoff, or residue leaching through the soil into groundwater. Aerial application of pesticides is not conducted within 100 feet of waterbodies to reduce effects on aquatic resources, including aquatic wildlife movement corridors and nursery sites. Herbicide application does not occur during inclement weather to reduce effects from drift. In addition, only trained applicators apply herbicides and all label rates and other CDPR standard practices are followed. Timing of herbicide application considers wind speed and moisture in the air to reduce the potential of transfer of herbicide to adjacent areas. As a result, the risk of effects on wildlife movement and nursery sites from pesticide use is low. Use of herbicides benefits wildlife nursery sites overall by controlling invasive plants in aquatic and terrestrial habitats. This trend is expected to continue in the future.

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Appendix E: Native American Communications

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State of California • Natural Resources Agency **Gavin Newsom, *Governor***
DEPARTMENT OF PARKS AND RECREATION **Armando Quintero, *Director***

July 15, 2025

Contact
Tribe
Address
City, CA 9XXXX

Re: Draft Habitat Conservation Plan for the California Department of Parks and Recreation, Oceano Dunes District

Dear XX,

Pursuant to Public Resources Code section 21080.3.1 subdivision (d), the California Department of Parks and Recreation (CDPR) wishes to provide you notice of a potential project within your traditionally and culturally affiliated geographic region which requires review under the California Environmental Quality Act (CEQA). CDPR also wishes to give you the opportunity to consult on any of the project's potential impacts to tribal cultural resources.

CDPR is in the process of finalizing a Habitat Conservation Plan (HCP) for Pismo State Beach and Oceano Dunes State Vehicular Recreation Area (SVRA) (Oceano Dunes District). The HCP covers 5,005 acres and provides a framework for promoting the protection and recovery of special-status species within both parks, while facilitating recreational use, park operations, natural and cultural resource management, maintenance, and planned development. Rather than separately permitting and mitigating individual activities, the HCP evaluates natural-resource impacts and mitigation requirements comprehensively in a way that is more efficient and effective for at-risk species and their essential habitats.

The draft HCP and additional information can be viewed at www.OceanoDunesHCP.com. Please note, an updated version of the HCP is currently being revised based on new information with newly added special-status species and park activities. In tandem with the HCP, State Parks is releasing a Draft Environmental Impact Report (EIR), including identifying any potential impacts to cultural and natural resources.

The HCP will allow State Parks to operate Oceano Dunes SVRA and Pismo State Beach in a manner that benefits numerous sensitive species while ensuring consistency with the Federal Endangered Species Act. The public will be able to continue enjoying these two parks while State Parks implements substantial endangered species management programs for the next 25 years.

The California Native American Heritage Commission (NAHC) was contacted requesting a Contact List and Sacred Lands File (SLF) Search within Oceano Dunes District. The SLF was positive. Since there are known archaeological and tribal cultural resources (TCRs) within Pismo State Beach and Oceano Dunes SVRA, Cultural Resource Monitors (Archaeological and Tribal) are recommended to be present for any project-related ground disturbing activities. Should any unexpected cultural resources be encountered by the monitors during any project-related work, avoidance and preservation in place are the preferred treatment methods.

SAMPLE

You were identified by the NAHC as a point of contact for this area. If you have any questions or require additional information regarding the HCP please contact me, Stephanie Little, at 805-773-5308 or stephanie.little@parks.ca.gov. **Please note that if your group wishes to consult, you have 30 days from receipt of this notice to respond and request consultation.** If you request consultation, CDPR will attempt to begin the consultation process within 30 days of receiving your response.

We appreciate your continued efforts to partner on projects. Your engagement over the years and knowledge of Pismo State Beach and Oceano Dunes SVRA have been invaluable.

Sincerely,

Stephanie Little

Stephanie Little
Tribal Liaison and Senior Environmental Scientist (Specialist)
California Department of Parks and Recreation
Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449
Office: 805-773-5308
stephanie.little@parks.ca.gov

cc: [Jon O'Brien], Acting District Superintendent, [Oceano Dunes District]
[Ronnie Glick], Supervisor, Cultural Resources Program, [Oceano Dunes District]

SAMPLE