

## **Appendix J      Wilderness Inventory**



# **Wilderness Inventory for Guadalupe-Nipomo Dunes National Wildlife Refuge**

## **Introduction**

A wilderness inventory is the process used to determine whether to recommend lands or waters in the National Wildlife Refuge System to Congress for designation as wilderness under the National Wilderness Preservation System (NWPS). The Service is required by policy to conduct a wilderness review for each refuge as part of the CCP process outlined in 602 FW 1 and 3, and according to the National Environmental Policy Act compliance. Lands or waters that meet the minimum criteria for wilderness are identified in a CCP and further evaluated to determine whether they merit recommendation for inclusion in the NWPS.

There are three phases to the wilderness inventory process: (1) inventory, (2) study, and (3) recommendation. Land and waters that meet the minimum criteria for wilderness are identified in the inventory. These areas are called wilderness study areas (WSAs). In the study phase, a range of management alternatives are evaluated to determine if a WSA is suitable for wilderness designation or management under an alternate set of goals and objectives that do not involve wilderness designation.

The recommendation phase consists of forwarding or reporting the suitable recommendations from the Director through the Secretary and the President to Congress in a wilderness study report. The wilderness study report is prepared after the record of decision for the final CCP has been signed.

Areas recommended for designation are managed to maintain wilderness character in accordance with management goals.

## **Evaluation Criteria**

According to Section 13 of the Service's Director's Order No. 125 (12 July 2000), in order for a refuge to be considered for wilderness designation, all or part of the refuge must:

- Be affected primarily by the forces of nature, with the human imprint substantially unnoticeable;
- Have outstanding opportunities for solitude or a primitive and unconfined type of recreation;
- Have at least 5,000 contiguous acres (2,000 ha) or be sufficient in size to make practicable its preservation and use in an unimpaired condition, or be capable of restoration to wilderness character through appropriate management, at the time of review; and
- Be a roadless island.

## **Evaluation of the Size Criteria**

Roadless areas or roadless islands meet the size criteria if any one of the following standards applied:

- An area with over 5,000 contiguous acres. State and private lands are not included in making this acreage determination.

- A roadless island of any size. A roadless island is defined as an area surrounded by permanent waters or that is markedly distinguished from the surrounding lands by topographical or ecological features.
- An area of less than 5,000 contiguous Federal acres that is of sufficient size as to make practicable its preservation and use in an unimpaired condition, and of a size suitable for wilderness management.
- An area of less than 5,000 contiguous Federal acres that is contiguous with a designated wilderness, recommended wilderness, or area under wilderness review by another Federal wilderness managing agency such as the Forest Service, National Park Service, or Bureau of Land Management.

### **Evaluation of Naturalness Criteria**

In addition to being roadless, a wilderness area must meet the naturalness criteria. The area must appear natural to the average visitor rather than “pristine”; it should “generally appear to have been affected primarily by the forces of nature with the imprint of man’s work substantially unnoticeable.” The presence of historic landscape conditions is not required. An area may include some human impacts provided they are substantially unnoticeable in the unit as a whole. Significant human-caused hazards, such as the presence of unexploded ordnance from military activity, and the physical impacts of refuge management facilities and activities are also considered in evaluation of the naturalness criteria. An area may not be considered unnatural in appearance solely on the basis of the “sights and sounds” of human impacts and activities outside the boundary of the unit.

### **Evaluation of Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation**

In addition to meeting the size and naturalness criteria, a wilderness area must provide outstanding opportunities for solitude or primitive recreation. The area does not have to possess outstanding opportunities for both solitude and primitive and unconfined recreation, and does not need to have outstanding opportunities on every acre. Further, an area does not have to be open to public use and access to qualify under this criteria; Congress has designated a number of wilderness areas in the Refuge System that are closed to public access to protect resource values.

Opportunities for solitude refer to the ability of a visitor to be alone and secluded from other visitors in the area. Primitive and unconfined recreation means non-motorized, dispersed outdoor recreation activities that are compatible and do not require developed facilities or mechanical transport. These primitive recreation activities may provide opportunities to experience challenge and risk; self-reliance; and adventure.

These two “opportunity elements” are not well defined by the Wilderness Act, but in most cases, can be expected to occur together. However, an outstanding opportunity for solitude may be present in an area offering only limited primitive recreation potential. Conversely, an area may be so attractive for recreation use that experiencing solitude is not an option.

### **Evaluation of Supplemental Values**

Supplemental values are defined by the Wilderness Act as "...ecological, geological, or other features of scientific, education, scenic, or historical value." These values are not required for wilderness.

## **INVENTORY FINDINGS**

As documented below, Guadalupe-Nipomo Dunes National Wildlife Refuge (Refuge) may meet the criteria to warrant wilderness consideration. Inclusion of this Refuge in the NWPS may be sought.

### **Roadless Areas and Roadless Islands**

The Refuge has a gravel road that bisects the property, and therefore does not meet the roadless area criteria. It is surrounded by agricultural fields, a California State Park, and private property. The nearest major roadway California State Route 1, is approximately one mile away.

### **Size Criteria**

The Refuge is approximately 2,553 acres and therefore, does not meet the 5,000 acre size criteria.

### **Naturalness Criteria**

Some modification has been conducted on the lands prior to their transfer to the Refuge System. Mobil Oil Company acquired the property for oil exploration. Infrastructure from this exploration remains on site, including pipes and abandoned wells. Little else has been done to alter the dune and wetland ecosystems on the Refuge, except for an abundance of invasive grasses and other vegetation. The Refuge is also very difficult to access due to the shifting dunes. It is surrounded by relatively small towns along the San Luis Obispo County coast, which are primarily agricultural lands. For these reasons, the Refuge meets the naturalness criteria for wilderness designation.

### **Opportunities for Solitude or Primitive and Unconfined Recreation**

The Refuge provides opportunities for solitude or primitive and unconfined types of recreation that are characteristic of a wilderness area. It is difficult to access, only by foot and therefore receives limited visitors. Based on this assessment, it provides opportunities for solitude and primitive recreation.

### **Supplemental Values**

The location of the Refuge is part of the Guadalupe Dunes Complex of coastal dunes flanked by the Pacific Ocean. It is one of the few pristine coastal dune landscapes along the California coast. Shorebirds migrate along this area of the Pacific Flyway.





## **Appendix K      Applicable Laws and Executive Order**

This appendix contains an overview of laws, executive orders, polices, and plans created by federal, state and local agencies with jurisdiction in the vicinity of the Guadalupe-Nipomo Dunes National Wildlife Refuge. The following table contains a list of applicable laws and executive orders that may affect the Refuge’s CCP or the Service’s implementation of the CCP. A brief description of the law, executive order, policy, or plan is included as well as how it relates to the CCP.

Law, Regulation, or Guideline	Description	Relation to the CCP
<b>Agency Coordination</b>		
Executive Order No. 12372, Intergovernmental Review of Federal Programs.	Requires that Federal agencies afford other agencies review of documents associated with Federal programs.	Copies of this environmental assessment will be sent to the California State Clearinghouse, Federal and State agencies, and local governments.
<b>Human Rights Regulations</b>		
Executive Order 12898, Environmental Justice. February 11, 1994 Americans with Disabilities Act of 1990 (ADA)	Requires Federal agencies to consider the effects of projects and policies on minority and lower income population. Provides for access to Federal facilities for the disabled.	The proposed action will not have a disproportionately high and adverse human health or environmental effect on minority populations and low-income populations. The proposed action promotes reasonable and appropriate uses of the land that preserve the natural character and protect the natural resources of the area.
<b>Cultural Resources Regulations</b>		
Antiquities Act of 1906	This act authorizes the scientific investigation of antiquities on Federal land. It prohibits and provides penalties for unauthorized search for or collection of artifacts or other objects of scientific interest. The Act also authorizes the president to establish national monuments and cultural areas on Federal lands.	The Service will continue to comply with this Act under the CCP.
Executive Order No. 11593, Protection and Enhancement of the Cultural Environment	States that if the Service proposes any development activities that may affect archaeological or historical sites, the Service will consult with Federal and State Historic Preservation Officers to comply with Section 106 of the National Historic Preservation Act of 1966, as amended.	The Service will continue to comply with this Order under the CCP.
Native American Graves Protection and Repatriation Act of 1990 (PL 101-601; 25 USC 3001 et seq.)(NAGPRA)	Regulations for the treatment of Native American graves, human remains, funeral objects, sacred objects, and other objects of cultural patrimony. Requires consultation with Native American Tribes during Federal project planning.	The Service will continue to comply with this Act under the CCP.

<b>Law, Regulation, or Guideline</b>	<b>Description</b>	<b>Relation to the CCP</b>
Archaeological Resources Protection Act of 1979 (PL 96-95; 93 STAT 722; 16 USC 470aa-47011), as amended (ARPA)	Protects archaeological resources on public lands.	The Service will continue to comply with this Act under the CCP.
Executive Order 13007, Indian Sacred Sites. 24 May, 1996	Provides for access to, and ceremonial use of, Indian sacred sites on Federal lands used by Indian religious practitioners and direction to avoid adversely affecting the physical integrity of such sites.	The Service will continue to comply with this Order under the CCP.
American Indian Religious Freedom Act 1978 (PL 95-341; 92 STAT 469; 42 USC 1996)	Provides for freedom of Native Americans to believe, express, and exercise their traditional religion, including access to important sites.	The Service will continue to comply with this Act under the CCP.
Archaeological and Historic Preservation Act of 1974 (PL 93-291; 88 STAT 174; 16 USC 469)	Provides for the preservation of historical buildings, sites, and objects of national significance.	The Service will continue to comply with this Act under the CCP.
Archaeological Resources Protection Act of 1979	Protects materials of archeological interest from unauthorized removal or destruction and requires Federal managers to develop plans to locate archeological resources.	The Service will continue to comply with this Act under the CCP.
National Historic Preservation Act of 1966 (PL 89-665; 50 STAT 915; 16 USC 470 et seq.; 36 CFR 800), as amended (NHPA)	Requires Federal agencies to consider the effects of any actions or programs on historical properties.	The Service will continue to comply with this Act under the CCP.
<b>Biological Resources Regulations</b>		
Endangered Species Act of 1973 (16 USC 1531 et seq.), as amended (ESA)	Provides for protection of plants, fish, and wildlife that have a designation as threatened or endangered.	An Intra-Service Section 7 will be completed with the Service for endangered and threatened species on the Refuge.
National Environmental Policy Act of 1969 (42 USC 4321 et seq) (NEPA)	Requires analysis, public comment, and reporting for environmental impacts of Federal actions.	The public will be notified of the availability of the draft Environmental Assessment and had a 30-day period to provide comments.
Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds. Jan. 10, 2001.	Instructs Federal agencies to conserve migratory birds by several means, including the incorporation of strategies and recommendations found in Partners in Flight Bird Conservation Plans, the North American Waterfowl Plan, the North American Waterbird Conservation Plan, and the United States Shorebird Conservation Plan, into agency management plans and guidance documents.	The Service has incorporated the strategies and recommendations of the listed management plans into the CCP to conserve migratory birds. The Service will continue to comply with this Order under the CCP.
Fish and Wildlife Conservation Act of 1980 (16 USC 661-667e), as amended	Requires the Service to monitor non-gamebird species, identify species of management concern, and implement conservation measures to preclude the need for listing under ESA.	The Service will continue to comply with this Act under the CCP.

<b>Law, Regulation, or Guideline</b>	<b>Description</b>	<b>Relation to the CCP</b>
Migratory Bird Treaty Act of 1918, as amended (MBTA)	Provides protection for bird species that migrate across state and international boundaries.	The Service will continue to comply with this Act under the CCP.
The Clean Water Act of 1972, Section 404 (33 USC 1344 et seq.), as amended	Provides for protection of water quality.	The Service will continue to comply with this Act under the CCP.
Fish and Wildlife Act of 1956 (16 USC 742a-743j)	Provides Secretary of Interior with authority to protect and manage fish and wildlife resources.	The Service will continue to comply with this Act under the CCP.
National Wildlife Refuge System Volunteer and Community Partnership Enhancement Act (1998)	Amends the Fish and Wildlife Act of 1956 to promote volunteer programs and community partnerships for the benefit of national wildlife refuges, and for other purposes	The Service will continue to promote volunteer programs and community partnerships under the CCP.
Fish and Wildlife Coordination Act of 1958	Requires equal consideration and coordination of wildlife conservation with other water resource development programs.	The Service will continue to comply with this Act under the CCP.
Emergency Wetlands Resources Act of 1986	Promotes the conservation of migratory waterfowl and offsets or prevent the serious loss of wetlands by the acquisition of wetlands and other essential habitats.	The Service will continue to comply with this Act under the CCP.
Federal Noxious Weed Act of 1990	Requires the use of integrated management systems to control or contain undesirable plant species, and an interdisciplinary approach with the cooperation of other Federal and State agencies.	The Service will continue to comply with this Act under the CCP.
Executive Order 13112, Invasive Species, 1999	Directs federal agencies to prevent introduction and provide control of invasive species.	The Service will continue to comply with this Act under the CCP.
Rivers and Harbor Act of 1899	Requires authorization by the U.S. Army Corps of Engineers prior to any work in, on, over, and under a navigable water of the U.S.	The Service will continue to comply with this Act under the CCP.
<b>Hazardous Materials Regulations</b>		
Oil Pollution Act of 1990 (PL 101-380; 33 USC 2701, et seq.)	Provides oil pollution policies and protections.	The Service will continue to comply with this Act under the CCP.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (PL 96-510; 42 USC 9601, et seq.) (CERCLA)	Provides mechanism for hazardous waste clean up.	The Service will continue to comply with this Act under the CCP.
<b>Land and Water Use Regulations</b>		

Law, Regulation, or Guideline	Description	Relation to the CCP
The National Wildlife Refuge System Administration Act of 1966 (16 USC 668dd-668ee), National Wildlife Refuge System Improvement Act of 1997 (PL 105-57)	Administration, management, and planning for National Wildlife Refuges, Amends the National Wildlife Refuge System Administration Act of 1966. Requires development of CCPs for all refuges outside of Alaska.	The Service will determine whether research, wildlife observation, photography, environmental education, and interpretation are compatible with the purposes for which the Refuge was established. This document will satisfy this Act.
Executive Order No. 11988, Floodplain Management	Provides for the support, preservation, and enhancement of the natural and beneficial values of floodplains.	No structure that could either be damaged by or significantly influence the movement of floodwater in the project area is planned for construction by the Service, thus the proposed action is consistent with this Order.
Executive Order No. 11990, Protection of Wetlands	Provides for the conservation of the natural and beneficial values of wetlands and their associated habitats.	The Service plans no detrimental impacts to wetlands but plans to preserve, enhance, and restore wetlands in the project area, thus the proposed action is consistent with this Order.
The Refuge Recreation Act of 1962, as amended	Provides for recreation use that is compatible with the primary purpose of a refuge.	The Service will determine whether recreation including wildlife observation, photography, environmental education, and interpretation are compatible with the purposes for which the Refuge was established.
Fish and Wildlife Improvement Act of 1978	Improves administration of fish and wildlife programs and amends earlier laws including Refuge Recreation Act, NWRS Administration Act, and Fish and Wildlife Act of 1956. Authorizes the Secretary to accept gifts or real and personal property on behalf of the U.S. Also authorizes use of volunteers on Service projects and appropriations to carry out a volunteer program.	The Service will continue to comply with this Act under the CCP.
Land and Water Conservation Fund Act of 1948	This act provides funding through receipts from the sale of surplus federal land, appropriations from oil and gas receipts from the outer continental shelf, and other sources of for land acquisition under several authorities. Appropriations from the fund may be used for matching grants to states for outdoor recreation projects and for land acquisition by various federal agencies, including the Fish and Wildlife Service.	The Service will continue to comply with this Act under the CCP.

<b>Law, Regulation, or Guideline</b>	<b>Description</b>	<b>Relation to the CCP</b>
Migratory Bird Conservation Act of 1929 (16 U.S.C. 715-715d, 715e,715f-715r)	Established the Migratory Bird Conservation Commission. The Commission approves acquisition of land and water, or interests therein, and sets the priorities for acquisition of lands by the Secretary for sanctuaries or for other management purposes.	The Service will continue to comply with this Act under the CCP.
Wilderness Act of 1964 (16 U.S.C. 1131-1136; 78 Stat. 890)	Directs the Secretary of the Interior to review, within ten years, every roadless area of 5,000 acres or more and every roadless island regardless of size within the National Wildlife Refuge System and to recommend suitability of each such area.	The Refuges do not contain 5,000 acres of roadless land.





**Appendix L      Persons Responsible for Preparing this Document,  
Core Team Members and Expanded Team  
Members**

## **Persons Responsible for Preparing this Document – Core Team Members and Expanded Team Members**

### **Core Team Members**

Michael Brady	Project Leader, Hopper Mountain NWR Complex
Ken Convery	Project Leader, Hopper Mountain NWR Complex
Glenn Greenwald	Refuge Manager (former), Guadalupe-Nipomo Dunes NWR
Matthew Hillman	Wildlife Refuge Specialist, Hopper Mountain NWR Complex
Jason Storlie	Wildlife Biologist, Hopper Mountain NWR Complex
Winnie Chan	Refuge Planner, San Francisco Bay NWR Complex

### **Expanded Team Members**

Joy Albertson	Supervisory Wildlife Biologist, San Francisco Bay NWR Complex
Eric Covington	USDA Wildlife Services
Mark Elvin	Biologist, Ecological Services, Ventura Fish and Wildlife Office
Justin Epting	GIS Specialist, Pacific Southwest Region, USFWS
Rachel Esralew	Hydrologist, Refuges Inventory and Monitoring Program, Pacific Southwest Region, USFWS
Ronnie Glick	Oceano Dunes State Vehicular Recreation Area
Jenny Marek	Biologist, Environmental Contaminants, USFWS
Andrea Pickart	Ecologist, Humboldt Bay NWR Complex
Mark Skinner	Restoration Specialist, Coastal San Luis Resource Conservation District
Cheryl Strong	Wildlife Biologist, Don Edwards San Francisco Bay NWR



## **Appendix M    Response to Comments**



**Summary of Public Comments and  
Service Responses on the Draft  
Comprehensive Conservation Plan  
and Environmental Assessment for  
Guadalupe-Nipomo Dunes National  
Wildlife Refuge**

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## **Introduction**

In March 2016, the U.S. Fish and Wildlife Service (Service) completed the draft comprehensive conservation plan and environmental assessment (draft CCP/EA) for Guadalupe-Nipomo Dunes National Wildlife Refuge. The draft CCP/EA outlines three alternatives for managing the refuge.

The draft CCP/EA was released for a 45-day public comment period. A public meeting was also held in Grover Beach, California, on March 22, 2016. This document summarizes the public issues and concerns within the scope of this draft CCP/EA that were raised by commenters, as well as Service responses. This report is divided into the following sections:

- Summary of Public Comments Received.
- Service Responses to Comments by Subject.

## Summary of Public Comments Received

After the comment period ended, the Service compiled all received comments, including all letters, e-mails, and comments recorded at the public meeting. In total, the Service received 39 separate written responses and 50 oral comments from the public meeting.

The Service received a variety of letters from local, State, and Federal governmental agencies and tribes, including the following:

- Northern Chumash Tribe
- Energy, Ocean Resources and Federal Consistency Division, California Coastal Commission
- National Park Service, Pacific West Regional Office
- Oceano Dunes District

The Service also received comments signed by representatives from the following organizations and businesses:

- Morro Coast Audubon Society
- The Land Conservancy of SLO County
- California Native Plant Society, San Luis Obispo Chapter
- Chevron Environmental Management Company
- Friends of Oceano Dunes

In the discussions below, the Service addresses and responds to all substantive comments received during the public comment period. Substantive comments are those that meet at least one of the following criteria:

- Challenge the accuracy of information presented.
- Challenge the adequacy, methodology, or assumptions of the environmental or social analysis and supporting rationale.
- Present new information relevant to the analysis.
- Present reasonable alternatives, including mitigation, other than those presented in the document.

In order to facilitate response, the Service grouped similar comments together and organized them by subject heading. Directly beneath each subject heading, you will also see a list of unique letter identification (ID) numbers. Table 1 at the end of this report relates each letter ID number to the name of the individual, agency, or organization that submitted the comment.

In several instances, the report refers to specific text in the draft CCP/EIS and indicates how the final CCP/EIS was changed in response to comments. The full version of the draft CCP/EIS and final CCP/EIS is available online at: [https://www.fws.gov/refuge/Guadalupe-Nipomo\\_Dunes/what\\_we\\_do/planning.html](https://www.fws.gov/refuge/Guadalupe-Nipomo_Dunes/what_we_do/planning.html).

For a CD-ROM or a printed copy, please email Refuge Planning, Region 8, at: [fw8plancomments@fws.gov](mailto:fw8plancomments@fws.gov). Include “Guadalupe-Nipomo Dunes CCP” in the subject line of the message. Or you can contact:

Michael Brady, Project Leader, Hopper Mountain National Wildlife Refuge Complex  
(805) 644-5185  
2493 Portola Rd. Suite A  
Ventura, CA 93003

## Service Responses to Comments by Subject

### General

**Letter ID # 9, 10, 11, 12, 22, 23**

**Comment:** Several individuals request that the Guadalupe-Nipomo Dunes beach should remain open.

**Response:** Comment noted and considered. The Refuge will remain open to public access.

**Letter ID # 36**

**Comment:** One commenter states that the refuge should be closed to public access as long as ATVs and off-road vehicles use adjacent lands.

**Response:** Comment noted. One of the Refuge System goals is to provide and enhance opportunities to participate in compatible wildlife-dependent recreation (specifically hunting, fishing, wildlife photography, wildlife observation, interpretation, and environmental education). Several other policies and laws also guide public uses on refuges including the Refuge Recreation Act of 1962 and the 1997 Refuge Improvement Act. The Service has decided to continue public access on the Refuge, except for the beach area during the snowy plover season.

**Letter ID # 40**

**Comment:** One individual asks whether there are any other refuges close to the Guadalupe-Nipomo Dunes.

**Response:** The next closest national wildlife refuge is Bitter Creek National Wildlife Refuge, located 1.5 hours away.

## CCP Planning and Process

### Planning Process

**Letter ID # 32, 40**

**Comment:** Commenters ask for

1. clarification on the next steps in the planning process; and
2. a schedule and deadline for completing the CCP and implementing CCP measures to demonstrate compliance with the Administrative Procedure Act.

**Response:**

Comment 1: Following the draft CCP public comment period, Service staff reviewed public comments, made revisions to the CCP and the EA, prepared this Response to Comments document, and developed a Modified Alternative A (Preferred Alternative) that incorporates different elements of each of the alternatives. Modified Alternative A was selected for implementation in the Finding of No Significant Impact, which completes the NEPA process for the CCP. The CCP was revised to reflect the actions in Modified Alternative A. The CCP process is now complete and the Service will implement actions under the CCP as described therein.

Comment 2: Following the publishing of this final CCP, the CCP objectives and strategies will be implemented per the prescribed timelines in the CCP, barring any funding and staffing limitations.

### **Roles and Authority**

#### **Letter ID # 40**

**Comment:** Individuals request information on

1. who will make the final decision on the CCP/EA; and
2. the Coastal Commission's role in the planning process.

#### **Response:**

Comment 1: With consideration of the public comments received, Service staff made the final decision on the CCP/EA.

Comment 2: The Service requested a consistency determination from the California Coastal Commission to ensure that the CCP actions are consistent with the enforceable policies of the California Coastal Management Program and the Coastal Act of 1976. The Coastal Commission issued a consistency determination on July 27, 2016.

### **Scope of Analysis**

#### **Letter ID # 32**

**Comment:** One commenter states that the EA analysis is not sufficient to determine whether there are significant impacts associated with the CCP. The same commenter states that the Service must prepare an EIS.

**Response:** The CCP EA analyzed the environmental impacts of the proposed alternatives. Because the Service did not identify any significant impacts on the human environment, the Service issued a Finding of No Significant Impact for the CCP. Since the Service determined that the actions proposed in the CCP would not have significant impacts, an EIS was not needed.

### **Staffing - Volunteers**

#### **Letter ID # 20, 37, 40**

**Comment:** Several individuals suggest that the Service use volunteers to provide snowy plover monitoring, keep the refuge clean, eradicate weeds, and provide a staffing presence.

**Response:** Some of these activities require more rigorous monitoring and procedures than can be provided by volunteers. Because the Refuge would be managed remotely from the Hopper Mountain NWR Complex, using and supervising volunteers would be difficult.

### **Staffing – Service Employees**

#### **Letter ID # 40**

**Comment:** Two commenters recommend that the Service hire an on-site refuge manager.

**Response:** Comment considered. Based on forecasted declining budgets, an on-site manager was not prescribed under the selected action.

## **Funding**

### **Letter ID # 12, 16, 31, 40**

**Comment:** Several commenters suggest that the Service charge an entrance fee, require a seasonal permit, or seek out other sources of funding to support the refuge.

**Response:** Comment considered. A fee program requires significant funding and staffing to implement, and visitation numbers do not justify implementing at this time.

## **Collaboration and Consultation**

### **Letter ID # 18, 33, 34, 35, 40**

**Comment:** Numerous individuals state that the Service should emphasize collaboration and partnerships, such as with the California Conservation Corps, Dunes Center, or other California agencies and non-governmental organizations, to meet refuge needs.

**Response:** We agree. Collaboration with partners provides additional support to the management of the Refuge. We have or are actively working with the aforementioned agencies, and will continue to collaborate with these and other partners.

### **Letter ID # 21**

**Comment:** One commenter recommends the Service contact the California Native American Heritage Commission to obtain a list of tribal people and groups with interest in the refuge.

**Response:** In 2013, the Service requested a list of tribal people affiliated with the Refuge area from the California Native American Heritage Commission. These individuals and groups have been included in the contact list for the CCP.

### **Letter ID # 24**

**Comment:** One commenter notes that the Service will need to prepare a consistency determination which documents the CCP's consistency with the California Coastal Management Program.

### **Response:**

We made a determination that the CCP complies with the Coastal Zone Management Act (known as a Negative Determination) and requested concurrence from the California Coastal Commission (CCC) on Jun 30, 2016. We received concurrence from the CCC on July 27, 2016 that the CCP will not adversely affect coastal resources.

## **Public Involvement**

### **General**

### **Letter ID # 20, 39, 40**

**Comment:** A few commenters express concern over the amount of time given for review of the draft CCP/EA or the need to provide the public with the ability to comment on the preferred alternative or any other alternative changes made in the document.

**Response:** We believe we have provided sufficient time to review the draft CCP/EA. The CCP/EA was available for comment for a total of 55 days. The public comment period is generally 30 days.

### **Public Notification**

#### **Letter ID # 21**

**Comment:** One commenter requests that the Service publish information about future public refuge meetings in the local media.

**Response:** Comment noted. No other public meetings are scheduled at this time.

### **Public Outreach/Education**

#### **Letter ID # 37, 39, 40**

**Comment:** Several individuals state that the Service should promote educational programs/projects and expand advertisement of tours and walks to improve public knowledge about the refuge.

**Response:** Comment noted. We will encourage partners to conduct tours on the Refuge.

## **Alternatives**

### **Alternatives – General**

#### **Letter ID # 40**

**Comment:** One commenter suggests that the Service implement a “hybrid” alternative.

**Response:** Comment noted. We have selected aspects of each alternative for the selected action. Table 1 in the EA identifies the actions that comprise this alternative, which is identified as Modified Alternative A in the table.

### **Alternative A**

#### **Letter ID # 27**

**Comment:** Per one commenter, management actions associated with Alternative A have resulted in an increase in invasive plants at the refuge.

**Response:** Comment noted. The Service acknowledges that current staffing and resources are not sufficient to respond to the spread of invasive vegetation occurring on the Refuge. We will continue to work with partners and search for additional funding to conduct invasive vegetation control. In light of limited resources, we have developed Refuge Priority Management Areas that represent unique habitat types or provide habitat for listed or rare species on the Refuge, as priority conservation areas for invasive species control.

#### **Letter ID # 28**

**Comment:** One commenter states that if Alternative B is not feasible to implement, the Service should select Alternative A where current management and public use opportunities are maintained.

**Response:** Comment noted. Given the forecasted Refuge budget, the Service has decided to select aspects of each of the alternatives as the final selected action.

### **Alternative B**

**Letter ID # 19, 21, 25, 27, 28, 29, 30, 38, 39, 40**

**Comment:** Numerous individuals and organizations, including the Morro Coast Audubon Society, California Native Plant Society, The Land Conservancy of SLO County, National Park Service, and Chevron Environmental Management Company, support Alternative B. They cite the following reasons:

- The alternative complies with all legal mandates and meets Refuge mission and goals.
- The alternative provides continued public access, along with increased visitor services and environmental education/outreach opportunities.
- The alternative promotes conservation and restoration of Refuge natural resources through increased wildlife and habitat management.
- Alternative B management efforts will build partnerships and support adjacent landowner management and restoration activities and goals.

**Response:** Comment noted. Given the forecasted Refuge budget, the Service has decided to select aspects of each of the alternatives as the final action.

### **Alternative C**

**Letter ID # 21, 27, 28, 30, 35, 36, 40**

**Comment:** Many respondents do not support Alternative C for the following stated reasons:

- The alternative will exacerbate the spread of invasive and exotic species within the refuge and into adjacent properties, making future restoration more difficult or impossible.
- Reduction of management at the refuge will compromise restoration and management efforts on other surrounding properties.
- The alternative will eliminate public access and associated environmental education opportunities.
- The alternative does not support long-term dune ecosystem sustainability or meet refuge goals.
- The alternative will reduce staffing available to manage and protect the refuge.

**Response:** Alternative C was not selected by the Service for implementation.

**Letter ID # 40**

**Comment:** Two commenters ask why the Service would consider selecting Alternative C.

**Response:** We presented Alternative C as an alternative in light of forecasted declining budgets across the Service.

## **Document**

**Letter ID # 29**

**Comment:** One commenter requests that the Service add “NNL” to the glossary of terms and acronyms in the EA.

**Response:** Comment addressed.

## Physical Resources

### General

Letter ID # 34, 36, 40

**Comment:** Several commenters state that the Service should recognize and protect the refuge's unique dune system.

**Response:** We agree. Comment noted. We will continue to protect the Refuge's unique dune system as our resources allow.

### Air Quality

Letter ID # 9

**Comment:** One commenter states that off-road vehicle use in the Oceano dunes is not a source of dust.

**Response:** We remain concerned about airborne particulate matter and continue to follow ongoing studies to understand the issue. A 2010 report by the San Luis Obispo County Air Pollution Control District ([http://slocleanair.org/images/cms/upload/files/pdf/PM2-final\\_report.pdf](http://slocleanair.org/images/cms/upload/files/pdf/PM2-final_report.pdf)) found that open sand sheets disturbed by off-road vehicle activity emit significantly greater amounts of particulates than undisturbed sand sheets under the same wind conditions.

### Water Quality

Letter ID # 30, 40

**Comment:** Commenters request that the Service

1. clarify the presence and types of ponds in the refuge; and
2. ensure ongoing management of freshwater wetland ponds to promote species dispersal and genetic material exchange.

### **Response:**

Comment 1: Freshwater ponds are the only type of pond on the Refuge. These ponds are depicted in Figure 8 in the CCP.

Comment 2: Comment noted.

## Biological Resources

### General

Letter ID # 27

**Comment:** Per one commenter, the draft CCP should encourage further understanding of invertebrate fauna and biological soil crusts.

**Response:** Comment noted. When resources or research opportunities allow, we plan to conduct a comprehensive inventory of fauna and flora. We encourage researchers to conduct studies on the Refuge that support priority resources.

**Biodiversity**

**Letter ID # 27**

**Comment:** The Service should expand Goal 2 of the draft CCP to “preserve and promote biodiversity” to allow for greater flexibility to adapt to changing climates.

**Response:** We believe the objectives and strategies identified in the CCP to implement Goal 2 will provide sufficient flexibility for refuge habitats to adapt to changing climates.

**Plant Species - General**

**Letter ID # 28**

**Comment:** One commenter expresses concern that management levels associated with Alternative C are insufficient to protect rare and locally endemic plant species. Loss of these individuals could affect species sustainability and result in isolated populations.

**Response:** Comment noted. Alternative C was developed in response to forecasted declining budgets in the Service. Modified Alternative A, the selected action, prescribes invasive species control through herbicide, mechanical, and hand removal, as well as vegetation monitoring following control. Further, the Feral Swine control plan will contribute to local plant species’ viability.

**Letter ID # 36**

**Comment:** In contrast, a separate commenter argues that plant life will recover and flourish in a reduced management approach that focuses on weed control and desirable species planting.

**Response:** Comment noted.

**Plant Species - Invasives**

**Letter ID # 19, 28, 30, 34, 40**

**Comment:** Numerous individuals express concern that management levels associated with Alternative C will allow invasive plant species to invade the dune ecosystem and surrounding lands, threatening endemic plant species.

**Response:** Comment noted. Alternative C was developed in response to forecasted declining budgets in the Service. Modified Alternative A, the selected action, prescribes invasive species control through herbicide, mechanical, and hand removal, as well as vegetation monitoring following control. Further, the Feral Swine control plan will contribute to local plant species’ viability.

**Letter ID # 27**

**Comment:** One individual requests creating defensible spaces around Refuge Priority Management Areas (RMPA) to reduce reinvasion by surrounding non-native plant infestations.

**Response:** Comment noted. We will assess how to reduce reinvasion of controlled RMPAs, including using defensible spaces as feasible.

**Letter ID # 28**

**Comment:** One commenter supports the development of an early detection and rapid response program, such as described in Alternative B, as well as monitoring to identify and remove invasive threats.

**Response:** Comment noted. As resources allow, we will conduct early detection and rapid response to new invasive threats.

**Letter ID # 27**

**Comment:** One individual recommends that the Service implement a refuge-wide weed management approach that prioritizes RPMAs but does not exclude work in other, adjacent areas.

**Response:** Comment noted. We will consider the needs for weed management in areas outside of the RPMAs, as funding and opportunities allow.

**Letter ID # 32**

**Comment:** One commenter argues that the Service needs to develop and implement CCP measures at a faster pace to address wildlife habitat impacts from invasive species.

**Response:** Comment noted. We will implement CCP measures as quickly as resources and staffing allow but, as the CCP indicates, an exact timetable for invasive plant control can only be developed after the situation is assessed by the Refuge staff and contractors tasked with its control.

**Wildlife - General**

**Letter ID # 9**

**Comment:** One commenter states that humans are not a source of harm to endangered and other wildlife species.

**Response:** We disagree. There are many peer-reviewed journal articles that describe potential disturbance (which could result in take as defined under the Endangered Species Act) from human activities such as wildlife observation.

**Letter ID # 32**

**Comment:** One individual recommends that the Service analyze impacts associated with delayed implementation of a predator management plan until 2018.

**Response:** Comment noted. Impacts associated with delayed implementation of the avian and mammalian predator management plan would be similar to Alternative A that does not include an avian and predator management plan, except that delaying implementation of a predator management plan would result in a short-term, reduced (instead of ongoing) loss of plovers and nests from predation.

**Letter ID # 40**

**Comment:** One commenter expresses concern over Alternative C impacts to threatened and endangered species.

**Response:** Comment noted and analyzed in the EA.

**Snowy Plover**

**Letter ID # 40**

**Comment:** Two commenters ask the Service to monitor the snowy plover population; one of these commenters requests clarification whether snowy plover monitoring will occur under Alternative C.

**Response:** Comment noted. Under Alternative C, snowy plover monitoring would occur as resources allow.

**Letter ID # 40**

**Comment:** One individual suggests that the Service should rope off the front and back of the dunes, as well as create a corridor to provide access through snowy plover habitat.

**Response:** Comment noted. This action was proposed in Alternative B. Alternative B was not selected for implementation because of the limited staffing and funding forecasts, and thus ability to consistently monitor compliance of the trail.

**Letter ID # 36**

**Comment:** One individual comments that the Service should place the needs of the snowy plover over the needs of the public.

**Response:** Comment noted. We recognize snowy plover as an important trust species to conserve. We also recognize that one of the Refuge System goals is to provide and enhance opportunities to participate in compatible wildlife-dependent recreation (specifically hunting, fishing, wildlife photography, wildlife observation, interpretation, and environmental education). Several other policies and laws also guide public uses on refuges including the Refuge Recreation Act of 1962 and the 1997 Refuge Improvement Act.

**Letter ID # 13**

**Comment:** One commenter asks the Service to disclose the number of nesting pairs of snowy plover at the refuge to support the need to restrict public access.

**Response:** The CCP contains recent numbers of adults and nests that have bred on the Refuge in Chapter 3, Refuge Resources. The nesting areas are closed seasonally to public access, and vary year to year based on nest locations.

**Letter ID # 32**

**Comment:** One commenter requests immediate implementation of the CCP, including development and implementation of a predator management plan, to protect snowy plover nests from predation and to comply with ESA and Refuge law.

**Response:** Comment noted. A feral swine control plan was included in the CCP and will be implemented as resources and partnerships allow. Many other actions proposed in the CCP can also be implemented now that the CCP process has completed. The Service determined that the avian and mammalian predator management plan needs to be completed as a step-down plan, requiring additional data collection and assessment of methods. Additional NEPA compliance and public involvement for this plan will be conducted. This plan would be completed and implemented by 2018 as indicated in the CCP.

### **Invasive Wildlife Species/Feral Swine**

**Letter ID # 28, 30, 40**

**Comment:** Several commenters express the need to manage feral swine and have concern that under Alternative C, the refuge could become a sanctuary for the invasive species.

**Response:** Comment noted. Alternative C has not been selected for implementation. A feral swine control plan was included in the CCP and will be implemented as resources and partnerships allow.

**Letter ID # 27**

**Comment:** One individual requests that the early detection and rapid response program be applied to all invasive species, not just plants.

**Response:** Comment noted and amended.

### **Least Tern**

**Letter ID # 32**

**Comment:** One commenter states that the draft CCP/EA fails to demonstrate that the Service will ensure compliance with ESA and Refuge mission to protect the California least tern.

**Response:** We disagree. We believe actions to conserve western snowy plovers will also benefit the California least tern. For example, removing non-native plant species and feral swine will benefit both the plovers and the least tern. Further, least terns do not currently nest on the Refuge. Should least tern begin to nest on the Refuge, additional actions will be considered.

## **Recreation**

### **General**

**Letter ID # 12, 14, 15**

**Comment:** Several commenters request that the Service maintain beach access for recreation activities.

**Response:** Comment noted. The area below the Mean High Tide is property of the state and will continue to remain open.

**Letter ID # 40**

**Comment:** During the public meeting there was a discussion about accessibility and ADA requirements for the refuge.

**Response:** Comment noted. The Refuge is a natural area with no infrastructure or improvements. Beach access is universally accessible through Oso Flaco State Beach boardwalk just north of the Refuge.

### **Off-road Vehicle Use**

#### **Letter ID # 40**

**Comment:** Several individuals discuss off-road vehicle use, addressing the following topics:

1. Request for clarification whether there are regular trespass events on refuge lands
2. Request for disclosure whether the refuge acquisition boundary may impact/limit off-road vehicle opportunities in the future
3. Suggestion that better management of the snowy plover on refuge lands could reduce off-road vehicle limitations in other, surrounding areas.

#### **Response:**

Comment 1: We are not aware of any regular vehicular trespass events on Refuge property.

Comment 2: The Refuge Approved Acquisition Boundary only identifies lands of interest and does not impact or limit off-road vehicle opportunities. Further, the Service only acquires land from willing sellers.

Comment 3: Current plover habitat on the Refuge is very narrow. Additional management measures of this habitat are unlikely to result in large population increases. We cannot comment on off-road vehicle limitations on other surrounding areas.

### **Trails**

#### **Letter ID # 32**

**Comment:** One commenter requests additional information on the location, plans, and impact of the proposed Pilot Loop Trail and Connectivity Trail.

**Response:** A general location map and description of the proposed trail is provided in the compatibility determination for wildlife observation and wildlife photography, Appendix D of the CCP. No other precise location of the trail has been developed at this time. General impacts as a result of this trail are described in the EA, Appendix B.

#### **Letter ID # 29**

**Comment:** One commenter commends the Service for providing recreation opportunities along the 1,200-mile Anza Trail historic corridor and associated recreation trail and recommends development of additional opportunities, as appropriate.

**Response:** Comment noted.

## Land Use/Special Status Lands

### General

#### Letter ID # 2, 16, 34, 37

**Comment:** Several commenters state that the government does not have the right to restrict access to public lands.

**Response:** Under 50 CFR 25.21, Refuge lands are closed unless explicitly open to public access in accordance with the National Wildlife Refuge System Administration Act of 1966 and the Refuge Recreation Act of 1962.

#### Letter ID # 36, 39

**Comment:** In contract, two commenters argue that some public access restrictions are needed at the refuge and that open space should be preserved.

**Response:** Comment noted.

#### Letter ID # 21

**Comment:** One individual notes that the Service cannot prevent fisherman from accessing the refuge border along wet sand.

**Response:** Agree. The Refuge boundary along the beach is located along the Mean High Tide.

### National Natural Landmark (NNL)

#### Letter ID # 29

**Comment:** One commenter commends the Service for improved NNL conditions and collaborative efforts with the National Park Service.

**Response:** Comment noted.

#### Letter ID # 40

**Comment:** One individual requests clarification on whether the dune's status as a NNL affects potential alternative selection or the availability of funding to support the refuge.

**Response:** No, the dune's status as a NNL does not affect the selection of the alternative or funding availability.

## Socioeconomics

### Economics

#### Letter ID # 3, 7, 18, 20

**Comment:** Numerous commenters request that the Service maintain beach access to provide a source of tourism and revenue for the local community.

**Response:** Comment noted.

**Letter ID # 40**

**Comment:** One individual expresses concern that adverse environmental impacts associated with Alternative C will increase costs for adjacent property owners.

**Response:** Comment noted. Alternative C was not selected for implementation. As part of Modified Alternative A, the selected action, the Service will continue to work with partners to reduce these impacts where possible with available staffing and funding.

**Social Conditions**

**Letter ID # 1, 4, 5, 6, 8, 17, 18, 31**

**Comment:** Numerous commenters request that the Service maintain beach access to provide ongoing family traditions and social well-being.

**Response:** Comment noted. Public access will continue to be allowed along the Refuge beach outside the snowy plover breeding season and year-round below Mean High Tide. Lands below mean high tide are outside the Refuge boundary and are State property.

**Public Health and Safety**

**Letter ID # 40**

**Comment:** At the public meeting, commenters express concern over potential crime, homeless populations, and vandalism at the refuge, particularly under Alternative C. As part of this discussion, one commenter asks whether the refuge can use electronic surveillance to minimize safety concerns.

**Response:** Comment noted. Reduced management capability may result in increased law enforcement issues. Electronic surveillance will be considered for some of the more sensitive areas of the Refuge, but may not reduce overall crime, vandalism, and trespassing on the Refuge.

**Letter ID # 40**

**Comment:** One individual asks the Service for clarification how stranded boats and other emergencies will be addressed under Alternative C.

**Response:** We will continue to work with partners to address emergencies, as well as deal with boat strandings.

**Cultural Resources**

**Letter ID # 21, 40**

**Comment:** Several commenters state that the CCP/EA should protect cultural resource sites and that the entire refuge is considered a cultural resource by Native American tribes.

**Response:** We agree. One objective identifies the need to protect cultural resources on the Refuge. Furthermore, any cultural resources on the Refuge are protected by the Archaeological Resources Protection Act, the Archaeological and Historic Preservation Act, the Native American Graves Protection and Repatriation Act, and the National Historic Preservation Act.

**Letter ID # 13**

**Comment:** One commenter expresses distrust over the actions of the Service.

**Response:** Comment noted.

**Table 1. Letter ID Numbers and Respondents.**

<b>Letter ID #</b>	<b>First Name</b>	<b>Organization (if official/elected representative)</b>
1	Ashley Taff	
2	Raymond	
3	Michael Brajkovich	
4	Barbara Adams	
5	Yukara Monroe	
6	Teresa Gardner	
7	Shari Doty	
8	Ferrarah Dizayee	
9	Glenn Stellar	
10	Lisa Dibbs	
11	Pat Kelley	
12	Sandy Berger	
13	Monica Wright	
14	Jennifer Best	
15	Al Millikan	
16	Mark and Karen Mackley	
17	Megan Lizalde	
18	Justin A. Paduganan	
19	Anonymous	
20	Andres Gutierrez	
21	Mona Olivas Tucker	Northern Chumash Tribe
22	Dan	
23	Jean Mollenkopf Moore	Access Limited Construction Company
24	Larry Simon	Energy, Ocean Resources and Federal Consistency Division, California Coastal Commission
25	Doug Tait	Morro Coast Audubon Society
26	Stephanie Burkhart	National Park Service, Pacific West Regional Office
27	Jon Hall	The Land Conservancy of SLO County
28	Lauren Brown	California Native Plant Society, San Luis Obispo Chapter
29	Alan Schmierer	National Park Service
30	Owen Ranta	Chevron Environmental Management Company
31	Maureen Soderberg	
32	Jim Suty	Friends of Oceano Dunes
33	Brent Marshall	Oceano Dunes District
34	Christina Bird-Holenda	
35	David Chipping	CNPS Conservation, SLO Chapter
36	Sheila Blake	
37	Nancy Heck	
38	David Walker	Walker Creations
39	Kenneth Wolf	
40	CCP Public Meeting Transcript (no commenter information)	



## **Appendix N      Biological Opinion**





# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

In Reply Refer to:  
FWS/R8/NWRS

Pacific Southwest Region  
2800 Cottage Way, Room W-2606  
Sacramento, California 95825-1846

Memorandum

July 29, 2016

To: File

From: Project Leader, Hopper Mountain National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, Ventura, California

Subject: Biological Opinion for the Comprehensive Conservation Plan of Guadalupe Nipomo Dunes National Wildlife Refuge

This document represents the U.S. Fish and Wildlife Service's (Service) biological opinion (BO) on the effects of the implementation of the proposed Guadalupe Dunes National Wildlife Refuge (Refuge) Comprehensive Conservation Plan (CCP) (proposed action). At issue are the effects of the proposed action on the federally threatened western snowy plover (*Charadrius alexandrinus nivosus*) and its designated critical habitat, the threatened California red-legged frog (*Rana aurora draytonii*), California least tern (*Sterna antillarum browni*), the endangered Gambel's watercress (*Rorippa gambellii*), marsh sandwort (*Arenaria paludicola*), Nipomo Mesa lupine (*Lupinus nipomensis*), La Graciosa thistle (*Eriodictyon capitatum*) and its designated critical habitat. This biological opinion is in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.).

We made the determination that the proposed action may affect, but is not likely to adversely affect the federally endangered Gambel's watercress (*Rorippa gambellii* [= *Nasturtium gambellii*]), marsh sandwort (*Arenaria paludicola*), La Graciosa thistle (*Eriodictyon capitatum*) and its designated critical habitat. Swine control trapping efforts would occur in ruderal habitat and open sand areas and avoid areas where these endangered plants occur (e.g. Refuge Priority Management Areas 2, 12, 13, and 14). In addition, implementation of the swine control plan is expected to have a long term beneficial effect on these species by reducing the potential for serious habitat damage and plant loss associated with trampling and grubbing by feral swine. Effects to these listed plant species will not be discussed further in this biological opinion.

We have made a "not likely to adversely affect" determination for the California least tern (*Sterna antillarum browni*) based on 14 years of Refuge observation; no least terns have been seen breeding on the

refuge, though they have been observed feeding in the surf. We have made a “no effect” determination for the Nipomo Mesa lupine. Though potential habitat for the lupine occurs on the eastern portions of the Refuge, this species has never been documented there. The only known population is located about 3 miles north of the Refuge. Impacts to these two species will not be discussed further in this biological opinion.

There are no other federally listed species known to occur on the Refuge.

This biological opinion is based on information presented to this office, including the Draft CCP, appendices, pertinent recovery plans, 5-year reviews, and information from our files.

In a memorandum dated March 21, 2006, the California/Nevada Operations Office (later renamed Region 8 - Pacific Southwest) delegated final signature authority to Project Leaders for certain section 7 findings that result in “no jeopardy” biological opinions for actions carried out under their authority on or associated with refuges under their management. The expectation behind this authority is that it will primarily be used to provide Section 7 compliance for projects that result in a net conservation benefit to listed species and/or to other trust resources on refuges. This authority recognizes that the management and restoration actions that the refuge undertakes or authorizes may have some short-term or indirect adverse impacts to listed species, but that in most cases are intended to result in overall benefits.

The National Wildlife Refuge System Improvement Act of 1997 mandated the preparation and adoption of CCP for all wildlife refuges within 15 years of its enactment. The purpose of this intra-Service consultation is to address implementation of the CCP for the Guadalupe Nipomo Dunes Refuge. Some projects or types of projects require more in-depth planning than the CCP process is designed to provide. For these projects or management actions, the Refuge prepares step-down management plans. In essence, step-down management plans provide the additional planning details necessary to implement management strategies identified in a CCP. The Guadalupe Nipomo Dunes CCP proposes to develop one such plan in the future: an avian and mammalian predator management plan.

We used biological information in the CCP and EA to conduct a program-level evaluation of the CCP implementation. Though current management activities are covered under previous Section 7 consultations (see Consultation history), the Refuge CCP proposes changes in wildlife and habitat management activities carried out by the Service. These activities and programs are summarized in the Description of Proposed Action and described in detail in the CCP. Take authorization for implementation of future step-down plans, restoration projects, or new Refuge programs requiring review will follow a compliance process that will tier from this programmatic consultation. This BO will not exempt the prohibition of take against listed species for implementation of programs or actions which are not specifically covered as part of this or previous consultations.

### **Consultation history**

A number of the current management activities identified in the CCP have already undergone Intra-Service Consultation under Section 7 of the Endangered Species Act of 1973, as amended (Act). Actions authorized by previous Section 7 consultations, such as pond creation and foredunes enhancement, will continue to be covered by those consultations. This BO will serve to authorize changes to previously covered actions and any new actions proposed in the CCP. These changes and new actions are described under the Description of the Proposed Action.

The following documents apply:

2015 Intra-Service section 7, Wet Season Pond Water Sampling

2014 Intra-Service section 7, Aerial Herbicide Application Research Study

2014 Intra-Service section 7, Foredunes Enhancement Project (treating beachgrass w/imazapyr & glyphosate)

2012 Intra-Service section 7, Foredunes Enhancement Project (treating beachgrass w/ fusilade)

2012-F-0123; Pond creation project and California red-legged frog

2012-F-0423; Nipomo lupine recovery activities

2009-F-0208; Installation of stream monitoring devices in Oso Flaco Creek; California red-legged frog, western snowy plover, California least tern, Gambel's watercress, marsh sandwort

2008-F-0091; Outplanting of marsh sandwort and Gambel's watercress

1-8-01-FW-15; Western snowy plover management plan, and the March 15, 2007 amendment.

## **BIOLOGICAL OPINION**

### **I. Description of the Proposed Action**

The Service proposes implementing the CCP to direct future management of Refuge activities for the next 15 years in accordance with the National Wildlife Refuge System Administration Act. The EA accompanying the CCP evaluates a range of alternatives concerning types and intensity of management activities allowed on the Refuge. A modified version of Alternative A is proposed for implementation. Under this alternative, the Service would continue most current management activities, modify some current management actions, and implement new management actions. These management activities are described below.

#### Current and Proposed Refuge Management

##### *Listed Species.*

Under the proposed plan, limited annual western snowy plover surveys during the breeding and wintering season would continue to be conducted on the Refuge. However, the adult breeding population and hatch rate would no longer be recorded throughout the breeding season without local staffing. The one-day adult population count would continue to occur in the winter and during the breeding season in coordination with regional survey efforts. Use of nest exclosures would be discontinued without local staffing. Outreach on the Refuge to reduce disturbance to the snowy plover would be conducted when staff are present. During the breeding season, closure signage would continue to be installed along the snowy plover breeding habitat. Annual surveys for La Graciosa thistle and marsh sandwort would be conducted. Opportunistic sightings of California least tern, California red-legged frog, Gambel's watercress, and other species would also be recorded. Fencing along the Refuge boundary and in wetland areas, particularly at Myrtle and Colorado Ponds will be maintained to reduce damage to California red-legged frog, La Graciosa thistle, marsh sandwort, and Gambel's watercress habitat from mammals, including feral swine and deer. Seed collection and outplanting of La Graciosa thistle, and marsh sandwort would be conducted intermittently when staff time permits. Sporadic control of beach grass and other invasive weeds would be conducted to improve snowy plover and least tern habitat.

The feral swine control and monitoring plan (Appendix J of the CCP) would be implemented to protect the

western snowy plover, California least tern, California red-legged frog, La Graciosa thistle, and other listed and sensitive species. In accordance with this step-down plan, the feral swine population would be controlled to reduce predation and damage to the habitat of these species. Although eradication of feral swine from the Refuge has been deemed unlikely, control of the existing population is expected to reduce the level of current impact to habitat and listed species. No more than 20 traps (e.g., corral-style, cage, drop-net, padded leg hold, box), totaling no more than 400 square feet, would be installed at one time.

A step-down avian and mammalian predator management plan, which would require separate Endangered Species Act (Act) compliance, would be developed following approval of the CCP to reduce threats to snowy plover adults, chicks, and eggs from various individual species. The recovery plan for the western snowy plover (USFWS 2007) identifies expanding predator populations as one of the primary reasons for a decline in active nesting areas and in the size of the breeding and wintering populations.

#### *Other Species.*

Under the proposed plan, opportunistic sightings of other native plants and wildlife would also be recorded. The Refuge would continue to facilitate other native wildlife and plant monitoring and research through its partners. Intermittent weed management activities would also continue to benefit wildlife resources and native plants.

#### *Habitat Management.*

Under the proposed plan, the Service would continue to manage the habitat on the Refuge as described in detail in Chapter 4 of the CCP with a focus on Refuge Priority Management Areas as identified during the CCP process (Appendix H of the CCP). The primary habitat types managed are coastal dune and coastal dune freshwater marsh and pond. Sporadic manual weed control and monitoring post-control of these habitats would continue as funds (for contracts) and staff time permit. Jubata grass would continue to be controlled as staffing and resources allow, via hand pulling and mechanical (shovel, tree saw, and string trimmer). Beachgrass and veldt grass control would continue as resources are available; using herbicide occurs through partners. Volunteers would continue to help. Fencing along the southern and eastern boundaries of the Refuge would continue to be maintained to protect Refuge habitats and natural resources from damage by feral swine and deer.

#### *Public Access and Recreation.*

Under the proposed plan, the Refuge would continue to provide wildlife observation, wildlife photography, and interpretation as detailed in Chapter 4 of the CCP. Guided, interpretive walks would be offered to the public at least four times per year, when staff time or support from partners permits. Guided, interpretive walks would also continue for private and non-profit entities as requested. The public would continue to be permitted to access the Refuge from the beach; the beach area of the Refuge would be closed to the public during the snowy plover breeding season.

Under the proposed plan, surf fishing would continue to occur on the Refuge. Surf fishing technically occurs below mean high tide, which is considered State waters, whereas the Refuge boundary is above the mean high tide line. However, the public traverses through the Refuge to access the beach where surf fishing occurs. Staff would also continue to participate in offsite outreach events when time permits, such as talks about the Refuge history and resources to local groups.

#### Conservation Measures of the CCP

The following conservation measures will be implemented as part of the proposed action to further reduce or avoid adverse effects on the western snowy plover, California red-legged frog, California least tern, Gambel's watercress, marsh sandwort, La Graciosa thistle during the 15-year life of the CCP. These conservation measures are expected to be implemented in a manner and to an extent sufficient to sustain compliance with the Act. Additionally, all project-level actions proposed to be implemented under the programmatic action will implement these conservation measures as appropriate and feasible for each project-level action (current management actions and future actions). However, the precise conservation measures that will apply to avoid or minimize a specific action's adverse effects will depend on the location and timing of the action, as well as the current status, distribution, and needs of the affected species and habitats. Implementation of these conservation measures as necessary is a key component in determining effects to listed species and a key component in the determination made for listed species in this Programmatic Biological Opinion.

As the proposed action develops new information about implementation, the Service may revise the conservation measures as necessary, consistent with the Act. However, the Service will not approve revisions to the conservation measures that would cause or allow an increase in incidental take of a listed species or critical habitat designated under the Act that was not considered in this Programmatic Biological Opinion. Any revisions to conservation measures that are consistent with the Programmatic Biological Opinion can be incorporated into this Programmatic Biological Opinion without re-initiating section 7 consultation of the Act.

#### *Protective Measures*

The specific habitat management actions include:

1. Maintain occurrences of La Graciosa thistle in wetland areas by maintaining existing barrier fencing.
2. Implement a feral swine control plan to reduce threats to La Graciosa thistle, Gambel's watercress, western snowy plover, and California red-legged frog.
  - a. Installation of corral-style traps to lure swine (on ruderal, open sand habitat)
  - b. Dispatch of swine by shooting and removal from Refuge (Contract)
  - c. Control activities will generally avoid endangered species habitat, unless approved by Refuge personnel.
  - d. Individual swine on beach may be dispatched by shooting, without the use of traps
3. Maintain natural shifting, sand sheet habitat and freshwater wetlands through invasive vegetation control and monitoring.
4. Use integrated pest management principles to control invasive weed species using mechanical, chemical and manual (e.g., hand-pulling) control treatments.
5. The wildlife-dependent observation, interpretation, and environmental education opportunities include:
  - a. Allow partners to conduct interpretive walks on the Refuge.
  - b. Work with partners to conduct environmental education.

#### *General Conservation Measures*

1. For contracted activities (e.g., invasive vegetation control, feral swine control), the supervising wildlife damage control personnel will participate in a Service-approved worker environmental awareness program. Under this program, contracted personnel shall be informed about the presence of listed species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the Service shall instruct all construction personnel about: (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts to these species during project construction and implementation. The awareness program will apply to contracted activities occurring within or adjacent to foredune or wetland habitat. A fact sheet conveying this information shall be prepared for distribution to the crew and anyone else who enters the activity site. A Service representative shall be appointed who will be the contact source for any employee or contractor who might encounter a listed species. The representative(s) shall be identified during the environmental awareness program. The representative's name and telephone number shall be provided to the Service prior to the initiation of any activities.
2. To reduce potential impacts from infestation by non-native perennial veldt grass, European beach grass, and other invasive plant species, all equipment (including personal gear) will be clean of soil, seeds, and plant material prior to arriving on site to prevent introduction of undesirable biological material. Equipment and personal gear will be subject to inspection. All new infestations occurring within the wetlands would be controlled and removed to the extent feasible without substantially hindering or harming the establishment of native vegetation in the restored wetlands.
3. A hazardous spill plan will be developed prior to activities, as applicable. The plan will describe what actions will be taken in the event of a spill. The plan will also incorporate preventative measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained, and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities, and mitigate damage as appropriate. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided on the project site.
4. Activity sites will be maintained trash-free and food refuse will be contained in secure bins and removed daily.
5. Any large wood, native vegetation, and weed-free topsoil displaced by construction will be stockpiled for use during site restoration.
6. Avoid activities during sensitive breeding periods to the extent possible.
7. Limit public access and human disturbance to sensitive breeding/habitat areas and sensitive breeding/flowering periods by avoiding or supervising breeding/flowering areas when developing public access sites and providing tours and other public activities outside the breeding/ season, when reasonable.
8. A qualified biologist would be present to monitor activities in and near areas known to be occupied by endangered species. The biologist would have the authority to install or require wildlife protection measures such as fencing, noise buffers or noise level limitations during breeding seasons of sensitive avian species, and to temporarily halt or redirect construction activities to avoid impacts on sensitive species.
9. UTVs will only be allowed on travel corridors as approved by Refuge personnel.

### *Species-Specific Conservation Measures*

In addition to General Conservation Measures above, the following measures apply:

Western snowy plover:

10. To minimize or avoid the loss of individual snowy plover, no activities will be performed within at least 600 feet of an active SNPL nest during the SNPL breeding season, 1 March through 15 September (or as determined through surveys). In addition, personnel that must stop at a specific site for brief inspections, maintenance, or monitoring activities should remain 600 feet away from SNPL nests and broods. *Exception:* Only inspection, maintenance, research, or monitoring activities may be performed during the SNPL breeding season in areas within or adjacent to SNPL breeding habitat with approval of the Service and under the supervision of a qualified biologist.

La Graciosa thistle, Gambel's watercress, marsh sandwort, California least tern and California red-legged frog:

11. The Refuge will conduct pre-activity surveys for La Graciosa thistle, Gambel's watercress, marsh sandwort, and California red-legged frog in all areas with suitable habitat that may be affected by the proposed actions of the CCP. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys for and handling of California red-legged frogs, the authorized biologist(s) would follow the USFWS *Abnormal Amphibian Surveys, Standard Operating Procedures, Biosafety During Amphibian Handling and Mortality Events* (Amphibian Biosafety SOP) (USFWS 2007a).

### *Activity-Specific Conservation Measures*

In addition to the Conservation Measures above, the following measures apply:

Visitor Service Activities

12. Interpretive signage prohibiting access to areas that are closed to the public, and indicating the importance of protection of sensitive biological resources, will be placed in key locations, such as along trails near sensitive habitats. Signage that allows avian predators to perch will have anti-perching material installed to prevent perching.
13. Interpretive tours will be limited to groups of no more than 20 people guided by qualified personnel or trained volunteers. Tours will be conducted on foot.
14. Participants conducting research on the Refuge will participate in a Service-approved Refuge orientation program. Under this program, research participants shall be informed about the presence of listed species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Refuge personnel shall orient research participants about: (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts to these species during research activities. All research activities must be permitted through the Refuge's Special Use Permit system and must be found to not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the Refuge, through the process known as a compatibility determination.

### Herbicide Use

15. Only Service-approved herbicides with an authorized pesticide use proposal (PUP) will be used. This currently includes Fusilade DX (fluazifop-P-butyl), Habitat (imazapyr), Aquanet (glyphosate), POAST (BASF) (sethoxydim), and Arrow 2EC (clethodim).
16. The application of any pesticide, including herbicides will be conducted in accordance with approved PUP. An annual pesticide use report (PUR) will be completed for every PUP by January 31 each year for previous year's activities.
17. Herbicides will be applied according to the chemical manufacturer's instructions on the label. All mixing of herbicides will be conducted at least 150 feet from water.
18. Herbicide use will only occur during dry weather, and will not occur if the vegetation is wet or if precipitation, including mist or heavy fog, is forecast in the next 24 hours.

### Feral Swine Management

19. Pre-Activity Surveys for Feral Swine Damage and Focused Removal Efforts: Prior to initiation of feral swine removal activities, surveys will be carried out to identify specific locations being impacted by feral swine. Swine removal efforts will be highly focused and limited to such areas.
20. Trap Placement and Vegetation Trimming: Proposed trap locations and vegetation trimming activities will be screened and/or surveyed to ensure that no ground disturbance or vegetation removal is proposed that could impact an archeological site or would result in disturbance within or damage to designated critical habitat, sensitive vegetation communities, or other habitat supporting threatened, endangered, and sensitive species. Traps may be placed in riparian areas, but will not be placed directly in or directly adjacent to wetlands to avoid water quality impacts. In addition, no riparian vegetation will be destroyed or removed. Trap placement will avoid areas visible from recreation trails and interpretive infrastructure to protect recreation resources and avoid potential vandalism. A qualified biologist will periodically visit active trapping sites to ensure that all practicable measures are being employed to avoid incidental disturbance of wetland habitat and any listed or sensitive species. Swine control trapping efforts will not occur in Refuge Priority Management Areas 2, 12, 13, and 14.
21. Lead Free Ammunition: To avoid lead contamination and the potential for adverse effects to wildlife, only lead free ammunition will be used during aerial and ground dispatch and the euthanization of trapped swine.
22. Short Term Closures: During periods of active ground based dispatch operations, limited areas of the Refuge might be closed to public access for safety reasons. Closures will be restricted to the minimum size and duration needed for public safety. Closures during weekends and holidays will be avoided whenever possible.
23. Use of Weed-Free Feed for Traps: Certified weed-free feed will be used in traps to minimize chances of introducing non-native and noxious weeds into the project area.

## II. Action Area

### Overview

The implementing regulations for section 7(a)(2) of the Act define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 FR 402.02). For the purposes of this biological opinion, we consider the action area to include

the Refuge. The Refuge is located in Central California, along the coast of southwestern San Luis Obispo County, and is part of the 18-mile long Guadalupe-Nipomo Dunes Complex that stretches from Pt. Sal in Santa Barbara County north to Pismo Beach in San Luis Obispo County (USFWS 2012). Occupying approximately 18,000-acres, the Guadalupe-Nipomo Dunes Complex is one of the largest dune landscapes on the west coast of North America. The 2,553-acre Refuge occupies about 14% of the land area of the Guadalupe-Nipomo Dunes Complex. Land elevations on the Refuge range from sea level to about 175-feet above mean sea level. The Refuge is bordered on the west by 1.8-miles of the Pacific Ocean, and its boundaries extend about three miles inland, where it is bordered by vegetated back dunes and active sand dunes (USFWS 2012). The Oso Flaco Natural Area of the Oceano Dunes State Vehicular Area lies to the north of the Refuge, and is managed as a wildlife preserve. The Refuge landscape primarily exists as coastal strand, unvegetated sand dunes, and vegetated sand dunes and it contains some of the rarest wildlife habitats and species on the continent. The main purpose for creation of the Refuge was to conserve Central California coastal dune and associated wetlands habitats and assist in the recovery of native plants and animals that are federally listed as threatened or endangered.

### Habitat Characteristics of the Action Area

A variety of coastal habitats exist on the Refuge and surrounding areas, including coastal strand and active primary dunes, central coast foredunes, central coast dune scrub with active interior dunes, coastal dune swale, coastal dune freshwater marsh and pond, and coastal dune riparian woodland (Holland *et al.* 1995). The types of Refuge habitats that would be affected by the proposed action include the following:

- 1) Central coast foredunes. Central coast foredunes typically extend inland from the coastal strand about a 0.25 mile to 0.5 mile. This habitat is dominated by both native and non-native plant species. Common native plant species in this plant community include sand verbena (*Abronia latifolia*, *A. maritima*), beach saltbush (*Atriplex leucophylla*), beach morning glory (*Calystegia soldanella*), beach evening primrose (*Camissonia cheiranthifolia*), California sand aster (*Corethrogyne filaginifolia*), dune ragwort (*Senecio blochmaniae*), and beach bur (*Ambrosia chamissonis*). Common non-native species include European sea rocket (*Cakile maritima*), European beachgrass, Hottentot fig, and purple ragwort.
- 2) Coastal dune swale. Several dune swale wetlands exist on the Refuge, and they are primarily located along the eastern edge of the foredunes. During the rainy season, the soils of these wetlands typically exhibit saturated surface soil, and during high rainfall periods, are periodically inundated with surface water for a few weeks. Common plant species in this plant community typically include arroyo willow (*Salix lasiolepis*), clustered field sedge (*Carex praeegracilis*), dune rush (*Juncus lesueurii*), scouring rush (*Equisetum* spp.), coastal silverleaf (*Potentilla anserina*), and occasionally California wax-myrtle (*Myrica californica*). The arroyo willow and California wax-myrtle found in this habitat tend to be stunted in height.
- 3) Central coast dune scrub with active interior dunes. Central coast dune scrub is the most common plant community on the Refuge, and it typically exists immediately inland of the foredunes. This habitat is dominated by both native and non-native plant species. Common native plant species in this plant community include silver bush lupine (*Lupinus chamissonis*), California goldenbush (*Ericameria ericoides*), prickly phlox (*Leptodactylon californicum*), sea cliff buckwheat (*Eriogonum parvifolium*), coyote bush, wedgeleaf horkelia (*Horkelia cuneata*), California poppy (*Eschscholzia*

*californica*), and clustered field sedge. Common non-native plant species include perennial veldt grass, Hottentot fig, ripgut brome (*Bromus diandrus*), narrow-leaved ice plant, and wild oat (*Avena sativa*). The active interior sand dunes associated with central coast dune scrub typically are not vegetated. However, isolated patches of vegetation are occasionally encountered in this habitat. Some of the plant species that inhabit active interior dunes include crisp dune mint (*Monardella undulata crispa*), silver bush lupine, dune ragwort, and European beachgrass.

- 4) Coastal dune riparian woodland. Small patches (usually less than 1 acre in size) of coastal dune riparian woodland are found intermittently scattered in the back dunes of the Refuge. They typically exist along the base of sand ridges and along the perimeter of ponds and marshes. Common native plant species in this plant community include arroyo willow, coyote bush, blue elderberry (*Sambucus mexicana*), stinging nettle (*Urtica dioica holosericea*), poison oak, and California goldenrod (*Solidago velutina* subsp. *californica*). Common non-native plant species include poison hemlock and bull thistle.

### **III. Status of the Species/Critical Habitat**

#### Western snowy plover

The western snowy plover's preferred breeding habitats include sandy coastal beaches, barrier islands, barren shores of inland saline lakes, and river bars along the Pacific coastline of Washington, Oregon, California, and Mexico. In the interior portions of the western states, this species also inhabits alkaline lakes, ponds, and river bars (Page et al. 2009). Due to a declining population size from a variety of factors—including loss of habitat from coastal development, increased human recreational use of beaches, increased spread of invasive plant species, and increased numbers of native and introduced predators (USFWS 2007b; Page et al. 2009)—the Pacific Coast breeding population of the western snowy plover was federally listed as threatened on March 5, 1993 (USFWS 1993) under provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). A recovery plan for the western snowy plover was finalized in 2007 (USFWS 2007b), which identified six recovery units for the listed population. The Refuge is located in Recovery Unit 5 for this species.

Western snowy plover are primarily visual foragers. They forage on invertebrates in the wet sand and among surf-cast kelp within the intertidal zone; in dry, sandy areas above the high tide; on salt pans; and along the edges of salt marshes, salt ponds, and lagoons. Western snowy plover food consists of immature and adult forms of aquatic and terrestrial invertebrates. The breeding season extends from early March through late September; it generally begins earlier in more southerly latitudes than in more northerly latitudes. Due to these timing differences, the breeding season may be two to four weeks earlier in southern California than in Oregon and Washington. Fledging (reaching flying age) of late-season broods may extend into the third week of September throughout the breeding range. They nest in open, flat, sparsely vegetated beaches and sand spits above the high tide. Western snowy plover often return to the same breeding sites year after year. They lay their eggs in shallow depressions in sandy or salty areas that generally are devoid of vegetation. Because the sites they choose are in loose sand or soil, nesting habitat is constantly changing under the influence of wind, waves, storms, and encroaching plants. Nests typically occur in flat, open areas with sandy or saline substrates. Vegetation and driftwood are usually sparse or absent.

As early as the 1970s, biologists suspected a decline in plover numbers. The primary cause is loss and degradation of habitat. The introduced European beachgrass (*Ammophila arenaria*) contributes to habitat loss by reducing the amount of open, sandy habitat and contributing to steepened beaches and increased habitat for predators. Urban development has reduced the available habitat for western snowy plovers while increasing the intensity of human use, resulting in increased disturbance to nesting plovers (USFWS 2014).

Natural and human-caused disturbances affect the western snowy plover and its habitat. Western snowy plover respond differently to disturbance depending on the type, frequency, and timing of disturbance. For example, breeding western snowy plover appear more sensitive to disturbance than wintering plovers. Western snowy plover are more likely to flush from, or abandon, a nest during the early incubation stages, but they are less likely to abandon a nest as eggs approach hatching, presumably because substantial effort and energy has been invested incubating the eggs and defending the nest. Human presence at isolated beaches on VAFB, for example, can result in western snowy plover flushing at a greater distance than plovers at ODSVRA, where they are subject to greater disturbance and have the ability to ‘habituate’ (USFWS 2012b).

Disturbance of nesting or brooding plovers by humans, domestic animals, feral animals, and native predators can be a major factor affecting nesting success. Western snowy plover typically leave their nests when humans, domestic animals, feral animals, or native predators approach too closely. Domestic dogs may deliberately chase plover and inadvertently trample nests. Vehicles may directly crush adults, chicks, or nests; separate chicks from brooding adults; and interfere with foraging and mating activities (Warriner et al. 1986; USFWS 1993; Ruhlen et al. 2003). Repeated flushing of incubating plovers exposes the eggs to the weather and depletes energy reserves needed by the adult, which may result in reductions to nesting success. Surveys at VAFB from 1994 to 1997 found the rate of nest loss on southern beaches consistently higher than on northern beaches, where recreational use was much lower (Persons and Applegate 1997). Ruhlen et al. (2003) found that increased human activities on Point Reyes beaches resulted in a lower chick survival rate.

Pacific Coast western snowy plover require relatively undisturbed areas, but disturbance appears to be site-specific and context-dependent. Consequently, plover response to disturbance can vary between sites. For example, incubating plovers at VAFB are easily disturbed because there is little human-related activity and noise there due to the military mission of the Air Force (USFWS 2012b). Similarly, western snowy plovers on the Refuge are typically very intolerant of human disturbance, and they frequently abandon active nests and also herd their broods into the foredunes when humans approach on foot within 150-200 yards (G. Greenwald, USFWS, personal communication, 2013).

Recently implemented efforts along the Pacific coast to separate nesting plovers from recreational beach users include the use of docents, symbolic fencing, and public outreach. These activities have increased reproductive success in those areas (Ruhlen et al. 2003).

Sea-level rise and hydrological changes associated with climate change are having and will continue to have significant effects on the Pacific Coast western snowy plover and its habitat over the next several decades (USFWS 2012b). Sea-level rise is a result of two phenomena: thermal expansion (from increased sea water temperatures) and global ice melt (Cayan et al. 2006).

For the Pacific Coast western snowy plover and other shorebird habitat, Galbraith et al. (2005), in a study of

sites in Washington (Willapa Bay) and California (Humboldt Bay and San Francisco Bay), projected losses of intertidal habitat could range between 20 and 70 percent of the existing habitat. In addition, sea-level rise may result in coastal areas losing their ability to support the current number of shorebirds. Areas with steep topography (Northern California to Washington State) or seawalls (Southern California) with limited beach habitat are expected to have the most severe losses (Galbraith et al. 2005). Additionally, sea-level rise would cause inundation of low-lying areas by high tides; flooding of coastal areas during major storm events, especially near river mouths; acceleration of erosion of coastal bluffs; and a shift in beach profiles, of the mean high water line landward (Huppert et al. 2009).

#### Western snowy plover critical habitat

On June 19, 2012, the Service published a final rule for designation of 24,527 acres of critical habitat along the coasts of California, Oregon, and Washington (USFWS 2012b). All of the Refuge coastal strand and large portions of the western foredunes are included in the Critical Habitat Unit CA-31 (Pismo Beach/Nipomo Dunes Unit) for the western snowy plover. This designation includes approximately 9.5 percent (242 acres) of the Refuge foredunes (Figure 9).

Since 2001, western snowy plover have occurred in most of the unvegetated portions of this critical habitat within 100 yards of the beach. In unvegetated areas, they have been observed as far inland as 600 yards (Applegate and Schultz 2009).

#### California red-legged frog

The California red-legged frog was federally listed as threatened on May 23, 1996 (Federal Register: Volume 61, Number 101, pages 25813-25833). The historical range of the California red-legged frog extended coastally from the vicinity of Point Reyes National Seashore, Marin County, California, and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California, Mexico (Jennings and Hayes 1985; Hayes and Krempels 1986).

The California red-legged frog uses a variety of habitat types, including various aquatic systems, riparian, and upland habitats. California red-legged frogs spend most of their lives in and near sheltered backwaters of ponds, marshes, springs, streams, and reservoirs. Deep pools with dense stands of overhanging willows and an intermixed fringe of cattails (*Typha* spp.) are optimal habitat. Eggs, larvae, transformed juveniles, and adults also have been found in ephemeral creeks and drainages and in ponds that do not have riparian vegetation. California red-legged frogs frequently breed in artificial impoundments such as stock ponds, if conditions are appropriate. Although they successfully breed in streams and riparian systems, high seasonal flows and cold temperatures in streams often make these sites risky environments for eggs and tadpoles. The importance of riparian vegetation for this species is not well understood.

When riparian vegetation is present, California red-legged frogs spend considerable time resting and feeding in it; the moisture and camouflage provided by the riparian plant community likely provide good foraging habitat and may facilitate dispersal, in addition to providing pools and backwater aquatic areas for breeding. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed and can be a factor limiting population numbers and distribution. California red-legged frogs breed from November through March with earlier breeding records occurring in southern localities (Storer

1925). California red-legged frogs found in coastal drainages are rarely inactive (Jennings et al. 1992), whereas those found in interior sites may hibernate (Storer 1925). Well-vegetated terrestrial areas within the riparian corridor may provide important sheltering habitat during winter. California red-legged frogs spend the summer in small mammal burrows and moist leaf litter (Jennings and Hayes 1994). California red-legged frogs have been found up to 98 feet from water in adjacent dense riparian vegetation for up to 77 days (Rathbun et al. 1993).

Aestivation habitat for the California red-legged frog is potentially all aquatic and riparian areas within the range of the species and includes any landscape features that provide cover and moisture during the dry season within 300 feet of a riparian area. This could include boulders or rocks and organic debris such as downed trees or logs; industrial debris; and agricultural features, such as drains, watering troughs, spring boxes, abandoned sheds, or hayricks. Incised stream channels with portions narrower than 18 inches and depths greater than 18 inches may also provide estivation habitat.

The California red-legged frog has sustained a 70 percent reduction in its geographic range in California as a result of several factors, singly or in combination. Habitat loss and alteration, overexploitation, and introduction of exotic predators were significant factors in its decline in the early to mid-1900s. California red-legged frogs were likely extirpated from the Central Valley floor before 1960. Remaining aggregations (assemblages of one or more individuals, not necessarily a viable population) in the Sierran foothills became fragmented and were later eliminated by reservoir construction, continued expansion of exotic predators, grazing, and prolonged drought. Within the Central Valley hydrographic basin, only 14 drainages on the Coast Ranges slope of the San Joaquin Valley and one drainage in the Sierran foothills are actually known to support or may support California red-legged frogs, compared to over 60 historic locality records for this basin (a 77 percent reduction). The pattern of disappearance of California red-legged frogs in southern California is similar to that in the Central Valley, except that urbanization and associated roadway, large reservoir (introduction of exotic predators), and stream channelization projects were the primary factors causing population declines. In southern California, California red-legged frogs are known from only five locations south of the Tehachapi Mountains, compared to over 80 historic locality records for this region (a reduction of 94 percent) (Jennings et al. 1992).

California red-legged frogs are known to occur in 243 streams or drainages in 22 counties, primarily in the central coastal region of California (USFWS 1996). The term “drainage” is used to describe named streams, creeks, and tributaries from which California red-legged frogs have been observed. Monterey, San Luis Obispo, and Santa Barbara Counties support the greatest number of currently occupied drainages, with 32, 36, and 36, respectively. Historically, the California red-legged frog was known from 46 counties, but the taxon is now extirpated from 24 of those counties (a 52 percent reduction in county occurrences). In 7 of the 22 occupied counties (32 percent), California red-legged frogs are from a single occurrence. The most secure aggregations are found in aquatic sites that support substantial riparian and aquatic vegetation and lack exotic predators, such as bullfrogs (*Lithobates catesbeiana*), bass (*Micropterus* spp.), and sunfish (*Lepomis* spp.). Only three areas within the entire historic range of the California red-legged frog may currently support more than 350 adults, Pescadero Marsh Nature Preserve (San Mateo County), Point Reyes National Seashore (Marin County), and Rancho San Carlos (Monterey County). Threats such as expansion of exotic predators, proposed residential development, and water storage projects occur in the majority of drainages known to support California red-legged frogs.

#### IV. Environmental Baseline

Past and present effects of human actions on the species or critical habitat in the action area are described extensively in chapter one, and in sections 3.4.4, and 4.2 of the CCP.

##### Western snowy plover

The western snowy plover nests on approximately 1 mile of the Refuge's 2.5 miles of coastal sand beaches and adjacent foredunes. These unstable areas are subject to the dramatic influences of ocean waves, tides, and powerful winds. The foredunes are sparsely vegetated with lowgrowing native plants including beach bur (*Ambrosia chamissonis*), crisp dune mint (*Monardella crispera*), and beach saltbush (*Atriplex leucophylla*). Introduced species such as European beachgrass, ice plant (*Carpobrotus edulis*), and veldt grass (*Ehrharta lanatus*) are also present. All sandy beaches within the Refuge boundary have been designated critical habitat for the western snowy plover.

Since 2002, the Refuge has participated in the standardized western snowy plover Range-wide Breeding Window Survey. During this survey western snowy plover are counted along the west coast of the United States during the same day or at least within the same week, during the month of May. From 2002 to 2014, the numbers of adult snowy plover observed on the Refuge during these annual breeding window surveys has ranged from a low of 7 (in 2007) to a high of 32 (in 2006), with an average of 20 (G. Greenwald, USFWS, personal observation, 2014).

On September 14, 2011, a total of 116 combined adult and fledgling snowy plover were observed on the Refuge during a standard plover breeding survey. This was the highest total western snowy plover count recorded since 2002. Large numbers of combined adult and fledgling snowy plover were also counted during 2011 from September 21 to September 27, with numbers ranging from 62 to 101 individuals (USFWS 2012c).

During the 13-year period from 2002 to 2014, the total number of snowy plover nests found each season ranged from a low of 21 (during 2012) to a high of 50 (during 2009), with a mean of 35. The Refuge snowy plover nest hatching success for this 13-year period ranged from a low of 7 nests in 2007 (30 percent hatch rate) to a high of 21 nests in 2005 (55 percent hatch rate) and 2014 (66 percent hatch rate), with a mean of 14 hatches (40 percent hatch rate). From 2002 to 2014, a total of 458 nests were detected on the Refuge, with 188 detected hatches (42 percent hatch rate), 502 cumulative total chicks produced, and an annual mean of 39 chicks produced (G. Greenwald, USFWS, personal observation, 2014).

Past and present effects of human actions on the species or critical habitat in the action area are described extensively in chapter one, and in sections 3.4.4, and 4.2 of the CCP.

##### California red-legged frog

Wetlands on the Refuge are small in size, few in number, and they tend to dry up during low rainfall years. As defined by Holland *et al.* (1995), the types of wetlands on the Refuge include coastal dune swale, coastal dune freshwater marsh and pond, and coastal dune riparian woodland. From 2006 to 2011,

the numbers of known wetlands on the Refuge possessing surface water inundation decreased from 14 to 7. Four of these seven inundated wetlands exist as freshwater ponds which serve as important breeding habitat for the California red-legged frog (USFWS 2012). These four ponds are the only known breeding habitat for the California red-legged frog on the Refuge (USFWS, unpublished data). The ability of these ponds to continue to support amphibian breeding is being threatened by two major factors: fluctuating groundwater levels and trophic enrichment.

Due to the combined effects of periodic droughts, fluctuating groundwater levels, and trophic enrichment, all of the ponds on the Refuge currently exist with low water quality and they are also in serious danger of drying up during low rainfall years. Since 2006, most of the coastal dune swale, coastal freshwater marsh, and coastal dune riparian woodland wetlands on the Refuge have not displayed surface water inundation, and have merely possessed saturated surface soils for only a few weeks each year after rains. Drying of the Refuge ponds could result in the loss of local populations and/or serious population size reductions of the California red-legged frog. During the summer of 2009, all of the ponds on the Refuge were observed to become nearly 100% overgrown on their surfaces by floating marsh pennywort (*Hydrocotyle ranunculoides*, *H. verticillata*), duckweed (*Lemna* sp.), mud midget (*Wolffiella* sp.), water fern (*Azolla* sp.), broad-leaved cattail (*Typha latifolia*), and/or, bur-reed (*Sparganium eurycarpum*) (USFWS 2009a).

The two largest Refuge ponds have been identified as the two main breeding areas for California red-legged frogs on the Refuge. From 2006-2008, when vegetation cover in and around these two ponds was lighter, several hundred California red-legged frog tadpoles or metamorphs could be observed at each pond during one field survey day. However, despite conducting several surveys throughout the summer and early fall of 2009, combined annual totals of only seven California red-legged frog metamorphs and no tadpoles were found in the largest pond. The numbers of California red-legged frog metamorphs and tadpoles in the second-largest pond were also found to be much-reduced when compared to previous years. The primary suspected reason for the lack/reduced numbers of California red-legged frog tadpoles and metamorphs during the 2009 surveys at both of these ponds was the physical barrier to the pond water surface that was created by the floating and emergent vegetative overgrowth. A similar trend was observed at the other Refuge ponds (USFWS 2011b).

In recent years, reduced surface water depths in Refuge ponds also encouraged the overgrowth of emergent wetland plants such as broad-leaved cattail, bur-reed, and floating marsh pennywort. As wetland water levels dropped and shorelines receded for several years, arroyo willow encroached towards the perimeter of Refuge ponds. The floating vegetation and emergent vegetation created a thick mat on the pond surface, while the arroyo willow created a dense canopy over large portions of each pond (USFWS 2009a).

Due to the declining habitat conditions, a project to remove emergent vegetation at the two largest Refuge ponds was initiated in 2009. After undergoing extensive planning and environmental review (USFWS 2009b, USFWS 2009c), manual removal of large portions of the emergent vegetation overgrowth at each pond was accomplished during November 2009. During the summer and early fall of 2010, the numbers of observed California red-legged frog tadpoles and metamorphs in both ponds had increased to pre-vegetative overgrowth levels (USFWS, unpublished data). While the 2009 project removed large portions of emergent and floating vegetative overgrowth, it was not a full-scale restoration project. Rather, the project was a temporary solution to a long-term problem. By the summer of 2011, vegetation had started to again overgrow these ponds (USFWS, unpublished data).

#### **IV. Effects of the Proposed Action**

Effects of the action are defined in 50 CFR §402.02 as "the direct and indirect effects of an action on the species, together with the effects of other activities that are interrelated or interdependent with the action, that will be added to the environmental baseline." Direct effects occur at the project site and may extend upstream or downstream based on the potential for impairing important habitat elements. Indirect effects are defined as "those that are caused by the proposed action and are later in time, but still are reasonably certain to occur." They include the effects on listed species of future activities that are induced by the proposed action and that occur after the action is completed. Interrelated actions are "those that are part of a larger action and depend on the larger action for their justification." Interdependent actions are "those that have no independent utility apart from the action under consideration." Cumulative effects, which are discussed separately after this section, are the effects of future State, local, or private activities, not involving Federal activities, which are reasonably certain to occur in the action area. The discussion of effects below is focused on changes in management and addition management not covered in previous consultations (see Consultation History).

##### Western snowy plover management

Under the proposed plan, monitoring of western snowy plovers will be reduced from a minimum of two days per week during the breeding season to once during the entire breeding season. The proposed reduction in breeding season monitoring will reduce data on plover populations on the Refuge. As a result, the Service would have less information to track population trends and inform management. However, the reduction in monitoring could benefit plovers since monitoring activities can disrupt nesting and foraging behavior of plovers and monitors can accidentally crush eggs or chicks and separating chicks from adults when walking through nesting and foraging habitat.

Under the proposed plan, nest exclosures would no longer be used on the Refuge. The use of nest exclosures and their success has been questioned by researchers, and one study found that there was no significant difference in partial clutch survival or hatchability between exclosed and unexclosed beach nests, and there was no difference in fledging success for chicks that hatched from exclosed or unexclosed beach nests) (Hardy and Cowell 2008). It is important to note that exclosures may improve nesting success, and that fledging success was not correlated to nesting success, and there has been no studies linking nesting success and its contribution to population growth of western snowy plovers (Dinsmore et al. 2014). Exclosed nests experienced significantly higher rates of nest abandonment than unexclosed nests (Hardy and Colwell, 2008). Although exclosures can greatly increase nest survival, this positive effect could be outweighed by increased nest abandonment or increased predation of incubating adults. The use of nesting exclosures has resulted in greater adult mortality when incubating eggs in an exclosure (Neuman et al. 2004, Pearson, Knapp, and Sundstrom, 2014), and it is unclear how site differences affect the use of exclosures (Dinsmore et al. 2014). In summary, in impacts of eliminating nest exclosures on the western snowy plover is unclear but the overall effect on plover populations is expected to be minor.

The actions that the Service anticipates are likely to occur at the Refuge are unlikely to result in any substantial mortality of western snowy plovers or reduce the amount of space available for reproduction, foraging, shelter, or disrupt any other element essential to the survival of the western snowy plover. The

proposed monitoring and public use activities would not reduce the ability of the species to survive and recover.

### Feral Swine Management

The Refuge proposes the implementation of feral swine control and monitoring, which would benefit western snowy plover and plant species and habitat both on and off the Refuge by reducing the potential for serious habitat damage and plant loss associated with trampling and grubbing by feral swine. The activities associated with feral swine control would have minimal, if any, effect on listed plant species and priority habitats (e.g., wetland areas, snowy plover habitat), because ruderal habitat and open sand areas would be targeted for trap locations.

The feral swine control and monitoring plan would result in loss of feral swine, with the goal of achieving a population-level effect on the species. A reduction in the number of feral swine on the Refuge would benefit wetland listed species and the western snowy plover. While no other wildlife would be lethally harmed, feral swine control may also indirectly disturb other wildlife with the presence of Wildlife Services on the Refuge in the early morning or evening. These predator management activities may flush or disturb non-target wildlife from their habitat. These activities are expected to be temporary and/or minimal in nature. Nonetheless, feral swine control is expected to result in positive, long-term Refuge populations of the western snowy plover, California red-legged frog, La Graciosa thistle, marsh sandwort, Gambel's watercress, and associated native wildlife. Installation of temporary predator barriers for trapping may impede access for large, non-target species from entering or exiting their feeding and roosting areas.

### Cumulative effects

Cumulative effects include the effects of future State, tribal, local or private actions (i.e., non-Federal actions) that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section, because they require separate consultation pursuant to section 7 of the Act. Any future actions proposed by the Service within the Refuge that may affect any listed species would be subject to future consultations. Because any discretionary activity undertaken in the Refuge would require Federal approval, it would not be considered in this section. Further, we are unaware of any non-Federal action that is reasonably certain to occur in the action area that is likely to adversely affect the western snowy plover, or its critical habitat, or the California red-legged frog.

### Conclusion

After reviewing the current status of the western snowy plover and its critical habitat; California least tern, California red-legged frog; La Graciosa thistle and its critical habitat; marsh sandwort; Gambel's watercress; the environmental baseline for the action area, and the effects and cumulative effects of the proposed action, it is the Service's biological opinion that implementation of the CCP is not likely to jeopardize the continued existence of the western snowy plover, and the California red-legged frog. We reached these conclusions for the following reasons:

1. Conservation measures to avoid and minimize adverse effects on western snowy plover, and the California red-legged frog have been incorporated into the project proposal.

2. The activities related to the proposed action are necessary for the long-term survival of these species.
3. The proposed action will result in only temporary disturbance to a small portion of habitat used by these species on the Refuge

## INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations promulgated pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are nondiscretionary and must be undertaken by the Refuge for the exemption in section 7(o)(2) to apply. The Service has a continuing duty to regulate the activity covered by this incidental take statement. To monitor the impact of incidental take, the Refuge must report the progress of the action and its impact on the species to the Ventura Fish and Wildlife Office as specified in the incidental take statement [50 CFR §402.14(I)(3)].

Western snowy plovers are small, cryptically colored birds that are difficult to detect, except when they move. Finding dead or injured individuals is difficult. The patterns of seasonal presence of this species are complex. Breeding individuals and their young are present in spring and summer; migratory or wintering individuals augment the resident population in fall and winter. Determining whether a nesting effort succeeded or failed is difficult; ascribing a reason for the failure of a nest when it does occur is also often difficult. Consequently, anticipating the precise number of western snowy plovers that may be taken as a result of changes in the management program in any given year is not possible. Given the proposed management measures, we anticipate that few individuals may be killed, injured, or harassed as a result of the proposed management changes. We estimate that 2 adults may be taken and because chicks are slow and difficult to see, we estimate that 4 chicks may be taken as a result of our CCP management scenario.

If any western snowy plovers are killed or injured, including any eggs that are crushed, during monitoring or public use activities, the Refuge shall notify the Ventura Fish and Wildlife Office immediately to review the circumstances of the incident to determine if additional protective measures are required. Activities may continue during this review period, provided that all protective measures for the western snowy plover contained in the Description of the Proposed Action section of the biological opinion and terms and conditions have been and continue to be fully implemented.

The Service anticipates that very few, if any, California red-legged frogs could be taken as a result of this

proposed action. The incidental take is expected to be in the form of harm or harassment. We further anticipate that incidental take of the California red-legged frog will be difficult to detect for the following reasons: (1) the small body size of the California red-legged frog makes detection difficult; (2) individuals may seek refuge in the nearby ponds; and (3) it would be difficult to associate any observed mortality or injury directly to the proposed activities due to public access and other ongoing activities unrelated to the proposed project. We estimate that possibly 3 frogs and 2 not fully metamorphosed frogs could be killed, injured, or harmed through pond maintenance activities.

Our evaluation of the effects of the proposed action includes consideration of the measures developed by the Refuge, and repeated in the Description of the Proposed Action portion of this biological opinion, to minimize the adverse effects of the management and public use programs on the western snowy plover and red-legged frogs. Any subsequent changes in the minimization measures proposed by the Refuge may constitute a modification of the proposed action, as specified at 50 CFR 402.16.

#### Reasonable and prudent measures

The Service believes the following reasonable and prudent measure is necessary and appropriate to minimize take of the western snowy plover:

1. Only qualified biologists shall monitor the status of the western snowy plover on the Refuge during the breeding season.

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of California red-legged frogs:

1. The Refuge must monitor its activities to ensure that the level of incidental take is commensurate with the analysis contained in this biological opinion.
2. The Refuge must re-initiate formal consultation if the number of California red-legged frogs taken as a result of the activities described in the previous sections of this biological opinion exceeds the anticipated level.

#### Terms and conditions

To be exempt from the prohibitions of section 9 of the Act, the Service must comply with the following term and condition, which implements the reasonable and prudent measures, described above and outline reporting and monitoring requirements. These terms and conditions are nondiscretionary.

The following terms and conditions implement the reasonable and prudent measure:

1. Only qualified biologists approved by the Project Leader shall monitor the status of the western snowy plover on the Refuge. The credentials of individuals proposed to conduct these activities will be submitted to the Ventura Fish and Wildlife Office for review and approval at least 15 days prior to the onset of these activities.

2. The Refuge must immediately re-initiate formal consultation, pursuant to section 7(a)(2) of the Act, if 1 (one) California red-legged frog is found dead or injured in any 12-month period as a result of any specific activity or circumstance related to pond maintenance, as described in this biological opinion.

#### Reporting requirements

The Refuge shall provide a written annual report to the Ventura Fish and Wildlife Office within 90 days following the end of each western snowy plover breeding season that this biological opinion is in effect. The report shall document the number of western snowy plovers killed or injured by the proposed activities. The report shall also contain a discussion of activities that resulted in disturbance to nesting birds; the results of biological surveys and sighting records; and any other pertinent information. This document will assist the Ventura Fish and Wildlife Office and the Refuge in evaluating future measures for the conservation of the species during your ongoing activities and for future projects.

#### Disposition of injured or dead specimens

Upon locating a dead or injured western snowy plover, or any dead or injured California red-legged frogs, initial notification must be made to the Ventura Fish and Wildlife Office by facsimile at (805) 644-3958 immediately, and in writing within three (3) working days. Notification must include the date, time, and location of the carcass; cause of death, if known; and any other pertinent information. Care must be taken in handling injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state for later analysis of cause of death. The finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed, unless to remove it from the path of further harm or destruction. Should any treated western snowy plovers or California red-legged frogs survive, the Service should be contacted regarding the final disposition of the animals.

The remains shall be placed with the Santa Barbara Natural History Museum, Vertebrate Zoology Department (Contact: Paul Collins, Santa Barbara Natural History Museum, Vertebrate Zoology Department, 2559 Puesta Del Sol, Santa Barbara, California 93105, (805) 682-4711 ext.321). Arrangements regarding proper disposition of potential museum specimens shall be made with the Santa Barbara Natural History Museum by the project monitor prior to implementation of the action.

In the case of take or suspected take of western snowy plovers or California red-legged frogs not exempted in this opinion, the Division of Law Enforcement shall be notified by facsimile at (310) 328- 6399 within 24 hours.

#### REINITIATION NOTICE

This concludes formal consultation on the management changes proposed in the Comprehensive Conservation Plan for Guadalupe Nipomo Dunes National Wildlife Refuge. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of

incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

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### **Personal Communication**

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**Appendix O California Coastal Commission Negative  
Determination Letter**

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT, SUITE 2000  
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July 27, 2016

Michael Brady

U.S. Fish and Wildlife Service  
Hopper Mountain NWR Complex  
ATTN: Winnie Chan  
P.O. Box 5839  
Ventura, CA 93005

Subject: Negative Determination ND-0020-16 (Comprehensive Conservation Plan, Guadalupe-Nipomo Dunes National Wildlife Refuge, San Luis Obispo County)

Dear Mr. Brady:

The Coastal Commission staff has reviewed the above-referenced negative determination. The U.S. Fish and Wildlife Service ("Service") proposes to implement the *Comprehensive Conservation Plan* ("CCP") for the Guadalupe-Nipomo Dunes National Wildlife Refuge ("Refuge"). The Refuge is located in southwestern San Luis Obispo County, occupies 2,553 acres of federal land along 1.8 miles of Pacific Ocean shoreline, and extends approximately three miles inland. The Refuge landscape consists primarily of sandy beaches, unvegetated and vegetated sand dunes, and wetlands. The Refuge was established in 2000 to conserve central California coastal dune and associated wetland habitats and to support the recovery of native plants and animals that are federally listed as threatened or endangered. A *Conceptual Management Plan* was prepared in 2000 and continues to provide the primary management guidance for the Refuge.

The *CCP* provides the goals, objectives, and strategies that are proposed to guide Refuge management for a 15-year period. Implementation of the *CCP* will allow the Service to restore habitat, protect cultural resources, recover threatened and endangered species, and provide opportunities for visitor recreation in the Refuge. The *CCP* outlines three goals that will define the management direction of the Refuge for the next 15 years:

*Goal 1: Protect, restore, and enhance native habitats to aid in the recovery of endangered, threatened, and other special status species.*

*Goal 2: Protect, manage, and restore coastal dune and other natural communities to support the diverse species of the central California coast.*

*Goal 3: Provide safe and high-quality opportunities for compatible wildlife-dependent educational and recreational activities to foster public appreciation of the natural heritage of the central California coast region.*

The Service states that these goals are broad statements of the desired future conditions for Refuge resources and may or may not be feasible within the 15-year timeframe of the *CCP*. The *CCP* also includes objectives and strategies that together will help achieve the goals. Objectives are quantified statements of a standard to be achieved or work to be accomplished and which should be feasible within the 15-year *CCP* timeframe. Strategies are specific actions, tools, or techniques that contribute to accomplishing the objectives.

Concurrent with the development of the *Draft CCP*, the Service prepared an *Environmental Assessment ("EA")* that examined three management alternatives. Under Alternative A, Refuge management would continue unchanged, including habitat and wildlife management and public use opportunities. Under Alternative B, there would be a moderate increase in wildlife and habitat management (including feral swine control and predator management) and an incremental increase in visitor services and environmental education. Under Alternative C, the Refuge would be closed to the public and there would be minimal wildlife and habitat management, due to the forecasted decline in budgets for the National Wildlife Refuge system. The Service states in the *CCP* that:

*As of 2015, the Refuge had one dedicated permanent staff position, a Refuge Manager; that position is currently vacant. Under any of the alternatives, the Refuge Manager position will not be refilled. The Refuge will continue to receive administrative, biological, and maintenance staff support from the [Hopper Mountain National Wildlife] Refuge Complex. The level of staff support required is dependent upon the alternative that is selected for implementation.*

After public review of the *Draft CCP* and *EA*, and given the current and anticipated budgetary constraints, the Service selected a modified Alternative A to be implemented under the final *CCP*. This alternative would expand current management activities on the Refuge to include implementation of a feral swine control plan and an avian and mammalian predator management plan to protect listed species found on the Refuge. The Service also states that under the modified Alternative A management activities will continue to support the overall conservation and protection of the western snowy plover, California least tern, California red-legged frog, and other listed species.

The *CCP* includes programmatic-level descriptions of projects proposed for implementation on the Refuge over the next 15 years. The subject negative determination for the *CCP* includes a commitment by the Service to coordinate with the Commission to determine which future *CCP* management plans and projects may require individual consistency or negative determinations. While proposed *CCP* plans and projects may affect coastal resources, the extent of these effects, if any, cannot be fully determined until subsequent, more detailed planning is completed. As individual management plan and project planning is completed, the Service will contact the Commission staff to determine the need for federal consistency review.

The Commission staff **agrees** that with the commitment for additional federal consistency review of future management plans and development projects, implementation of the *Comprehensive Conservation Plan* for the Guadalupe-Nipomo Dunes National Wildlife refuge will not adversely

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Hopper Mountain NWR Complex

affect coastal resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Larry Simon at (415) 904-5288 should you have any questions regarding this matter.

Sincerely,

(for)



JOHN AINSWORTH  
Acting Executive Director

cc: CCC – Central Coast District