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ENERGY, OCEAN RESOURCES, AND FEDERAL CONSISTENCY DIVISION REPORT FOR THE

JUNE 12, 2015 MEETING OF THE CALIFORNIA COASTAL COMMISSION

TO: Commissioners and Interested Parties

FROM: Alison Dettmer, Deputy Director

Energy, Ocean Resources & Federal Consistency

NEGATIVE DETERMINATIONS				
APPLICANT	Project	LOCATION		
ND-0005-14 National Park Service	General Management Plan Action: Concur, 5/14/2015	Channel Islands National Park Santa Barbara and Ventura Counties		
ND-0015-15 Department of the Navy	Installation of Solar Systems Action: Concur, 5/15/2015	Monterey, Port Hueneme, and Seal Beach		
ND-0017-15 U.S. Fish and Wildlife Service	Sea Level Rise Adaptation Demonstration Project – Removal of Invasives from Dunes Action: Concur, 5/28/2015	Lanphere Dunes Unit, Humboldt Bay National Wildlife Refuge, Humboldt Co.		
ND-0019-15 U.S. Army Corps of Engineers	Maintenance Dredging Action: Concur, 5/29/2015	Humboldt Bay Bar & Entrance Channels, Humboldt Co.		

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DATE: June 1, 2015

TO: Coastal Commissioners and Interested Parties

FROM: Charles Lester, Executive Director

Alison Dettmer, Deputy Director

Mark Delaplaine, Manager, Energy, Ocean Resources and Federal

Consistency Division

RE: Negative Determinations Issued by the Executive Director

[Executive Director decision letters are attached]

PROJECT #: ND-0005-14

APPLICANT: National Park Service

LOCATION: Channel Islands National Park, Santa Barbara and Ventura

Counties

PROJECT: General Management Plan

ACTION: Concur ACTION DATE: 5/14/2015

PROJECT #: ND-0015-15

APPLICANT: Department of the Navy

LOCATION: Monterey, Port Hueneme, and Seal Beach

PROJECT: Installation of Solar Systems

ACTION: Concur ACTION DATE: 5/15/2015

PROJECT #: ND-0017-15

APPLICANT: U.S. Fish and Wildlife Service

LOCATION: Lanphere Dunes Unit, Humboldt Bay National Wildlife

Refuge, Humboldt Co.

PROJECT: Sea Level Rise Adaptation Demonstration Project –

Removal of Invasives from Dunes

ACTION: Concur ACTION DATE: 5/28/2015

PROJECT #: ND-0019-15

APPLICANT: U.S. Army Corps of Engineers

LOCATION: Humboldt Bay Bar and Entrance Channels, Humboldt Co.

PROJECT: Maintenance Dredging

ACTION: Concur ACTION DATE: 5/29/2015

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May 14, 2015

Russell E. Galipeau, Jr. Superintendent Channel Islands National Park National Park Service 1901 Spinnaker Drive Ventura, CA 93001

RE: **ND-0005-14** Negative Determination, National Park Service, Channel Islands National Park, General Management Plan, Ventura and Santa Barbara Counties

Dear Superintendent Galipeau:

On February 27, 2014, the National Park Service (NPS) submitted a negative determination for the Channel Islands National Park (CINP) General Management Plan (Plan), which provides an overarching framework to guide CINP management for the next 20-40 years. The negative determination was accompanied by the NPS' Draft General Management Plan/Wilderness Management Study/Environmental Impact Statement (DEIS). Based on mutual agreement, our review was extended to allow the EIS process to proceed, to allow public comments to be received and responded to. On April 26, 2015, the NPS published the FEIS, which contained these responses.

The Park is comprised of five of the eight Channel Islands - Anacapa, Santa Cruz, Santa Rosa, San Miguel, and Santa Barbara, as well as the submerged lands and waters within 1 nautical mile of each of these island. The park bridges two major biogeographical provinces within approximately 250,000 acres of land and sea, protecting a rich array of natural and cultural resources. The Park also includes a two-acre mainland visitor center in Ventura Harbor.

The Plan identifies goals and strategies, with more specific implementation and plans to be adopted later, through 5-Year Strategic and Implementation Plans, and specific project implementation. When the Commission and staff review these types of overarching plans, we use the documents to compare overall policy goals to Coastal Act policies and goals, and, if possible, attempt to identify which future activities need to be brought before the Commission and or staff in future federal consistency submittals. The federal consistency regulations encourage such a "phased federal consistency review" approach ¹.

¹ 15 CFR Section 930.36 (d) provides:

⁽d) Phased consistency determinations. ... In cases where federal decisions related to a proposed development project or other activity will be made in phases based upon developing information that was not available at the time of the original consistency determination, with each subsequent phase subject to Federal agency discretion to implement alternative decisions based upon such information (e.g., planning, siting, and design decisions), a consistency determination will be required for each major decision.

The Plan's articulated overall goals are to: (1) restore and maintain natural ecosystems and processes; (2) preserve and protect cultural resources; (3) provide opportunities and access for the public to experience and connect to the park; (4) promote stewardship of park resources; and (5) administer the park efficiently and effectively. The NPS lists the major issues raised as: (1) access to the islands; (2) access on Santa Rosa Island; (3) the type and level of recreation development that is appropriate on the islands; (4) providing sustainable park operations; (5) designation of wilderness; and (6) climate change.

The NPS describes the preferred alternative under the Plan (Alternative 3) as follows:

... is intended to emphasize resource stewardship, including ecosystem preservation and restoration, and preservation of natural landscapes, cultural landscapes, archeological resources, and historic structures.

Alternative 3 would place more attention than the other alternatives on expanding education and recreational opportunities and accommodations to provide diverse visitor experiences on the islands. Visitors would have more opportunities to see and experience the islands.

Under alternative 3, 66,675 acres of the park would be proposed for wilderness designation, primarily on Santa Rosa and Santa Cruz islands. Under alternative 3, 66,576 acres of the park would be proposed for wilderness designation, primarily on Santa Rosa and Santa Cruz Islands. The lands on Santa Rosa and Santa Cruz Islands would be proposed as potential wilderness due to temporary nonconforming uses.

There would be expanded opportunities to bring the park to the people through additional facilities and activities, including an expanded visitor center in Ventura Harbor and expansion of learning programs and video telecasts. Increased efforts would be made to provide educational programs that focus on all grade levels and adults throughout the adjacent mainland communities, as well as throughout the nation through interactive distance learning programs.

Although many roads might be removed or converted into trails on Santa Cruz and Santa Rosa Islands, selected roads would continue to be maintained for visitors to see Santa Rosa Island and to administer and protect resources on both Santa Rosa and Santa Cruz Islands.

Limited new facilities might be built, or existing facilities rehabilitated, on Santa Cruz and Santa Rosa Islands for specific resource protection, management, and visitor services. There would be few changes in the transportation methods used to reach the islands or travel on the islands.

Partnerships would be expanded with governmental agencies, educational institutions, and others to bring the island experience to the public and facilitate educational opportunities, resource stewardship, and research. New concessions and other commercial uses might be permitted to expand visitor experiences on the

islands. These businesses could include lodging with food service and visitor shuttle service (both on Santa Rosa Island), rentals (snorkel and kayak gear), guided camping, pinniped viewing on San Miguel Island, and environmental education throughout the park.

Under the Plan, activities are proposed that would improve water quality, reduce flood risks, improve wetland and environmentally sensitive habitat values, reduce adverse habitat effects from invasive species, benefit marine resources, avoid effects on archaeological resources, and improve public access and visitor experiences (in a manner properly balancing access and habitat needs). The Plan also appropriately addresses Climate Change needs. From an overall perspective, the Plan reflects similar Coastal Act goals and priorities which protect public access and recreation, environmentally sensitive terrestrial and marine habitats, scenic and archaeological resources, and coastal water quality. From a procedural perspective, the Plan indicates (and the NPS acknowledges) that additional coordination, documentation, and studies would be needed before proposed actions would be carried out. This would include coordination with the Commission and its staff on the need for any further consistency review. Briefly, the Plan (FEIS p. 422(Attachment 1)) notes that more detailed activity analysis would include, but not be limited to, the following:

- development of backcountry trails/road management plans for Santa Cruz and Santa Rosa islands, including the removal of roads from the islands and specific closures and/or conversions of roads to trails;
- development of subsequent implementation plans (e.g., commercial services, vegetation management, and fire management plans);
- periodic excavation of sediments from the Scorpion channel on Santa Cruz Island;
- construction of a new visitor center on the mainland; and
- additional site-specific construction projects (e.g., construction of a campground at Bechers Bay on Santa Rosa Island, development of specific campsites and trails on Santa Cruz Island, and development of employee residences in the Prisoners Harbor area).

A more complete list of future projects is contained in FEIS, Table 12, pp. 141-142, which lists, by location, future infrastructure and facilities modifications anticipated under the plan (Attachment 2). The Plan also contains a list of general mitigation measures that would be applied (FEIS pp. 174-179 (Attachment 3)). The FEIS maps for the proposed alternative (i.e., FEIS Maps 1 and 22-31) depict current and future land uses, trails and other infrastructure, and locations of project components (Attachment 4).

The Commission staff agrees with the NPS that an administrative review (i.e., a negative determination) for the Plan is warranted at this time, given the following factors: (1) the general nature of this stage of the planning process; (2) the similarities between the NPS' articulated goals for the park with Coastal Act goals and priorities; (3) the fact that proposed

development that would occur under the plan would be similar in nature to the existing uses of the Park; and (4) the future planning and agreed-upon coordination that would precede any project implementation. While future, more specific proposals may require consistency determinations (or negative determinations), the staff believes the decisions on which types of determinations are appropriate can be made on a case-by-case basis, as the planning and implementation evolves.

We would also point out, from a procedural perspective, that if any of the future project components are not proposed to be *carried out* by the federal government (particularly those within the western 2/3 of Santa Cruz Island, which is not federally-owned, as well as any activity within the 3-mile band of state waters surrounding all of the Channel Islands), the mechanism for future Commission review that may be required would be submittal of a coastal development permit application, rather than a consistency or negative determination. Again, as the planning efforts (and specific project details) evolve, we can advise you as to the appropriate procedural review mechanism, on a case-by-case basis.

In conclusion, with the commitment for further coordination (and where appropriate, public review) before any implementation or construction would occur, which will enable us to be assured that the Plan continues to be carried out in a manner consistent with coastal zone resource protection goals and policies, we **agree** with the NPS that the Plan can be reviewed administratively at this time, and we therefore **concur** with your negative determination made pursuant to Section 15 CFR 930.35 of the NOAA implementing regulations. Please contact Mark Delaplaine at (415) 904-5289 if you have any questions.

Sincerely,

(for) CHARLES LESTER

Executive Director

Attachments:

- 1. Projects triggering future NEPA documents
- 2. Future projects list
- 3. Mitigation measures common to all projects
- 4. Maps and Schematics

cc: Ventura District Office

CHAPTER 5: CONSULTATION AND COORDINATION

FUTURE COMPLIANCE REQUIREMENTS

The following section indicates future actions the Park Service and/or its contractors would carry out during implementation of the preferred alternative to ensure compliance with applicable federal and state laws.

National Environmental Policy Act Compliance

The following actions discussed under the preferred alternative but not analyzed in this plan would likely require additional environmental analyses with appropriate documentation before they are implemented, consistent with the provisions of the National Environmental Policy Act:

- development of backcountry trails/road management plans for Santa Cruz and Santa Rosa Islands, including the removal of roads from the islands and specific closures and/or conversions of roads to trails
- development of subsequent implementation plans (e.g., commercial services, vegetation management, and fire management plans)
- periodic excavation of sediments from the Scorpion channel on Santa Cruz Island
- construction of a new visitor center on the mainland
- additional site-specific construction projects (e.g., construction of a campground at Bechers Bay on Santa Rosa Island, development of specific campsites and trails on Santa Cruz Island, and development of employee residences in the Prisoners Harbor area)

In addition to these actions, other actions in the preferred alternative could require additional NEPA compliance.

Threatened and Endangered Species

Section 7 of the ESA, as amended (16 USC 1531 et seq.) requires all federal agencies to consult with the Fish and Wildlife Service to ensure that any action authorized, funded, or carried out by any agency would not jeopardize the continued existence of listed species or critical habitat. The Fish and Wildlife Service and National Marine Fisheries Service, which implement the ESA, have been informally consulted regarding effects on threatened and endangered species. The Park Service would continue to consult with both the Fish and Wildlife Service and National Marine Fisheries Service to ensure that actions in the preferred alternative would not adversely affect threatened and endangered species and their habitats (e.g., development of new campsites on Santa Rosa Island).

Essential Fish Habitat

Under the Magnuson-Stevens Act and its amendments, federal agencies are required to identify and protect important marine and anadromous fish habitat. Federal agencies that fund, authorize, or undertake activities that might adversely affect essential fish habitat are required to consult with the NOAA Fisheries Service regarding the potential effects of their actions on essential fish habitat, and respond in writing to that agency's conservation recommendations.

Water Resources

In accordance with the Clean Water Act, a Section 404 permit from the Corps of Engineers would be required for the discharge or placement of fill material into waters of the United States. Any dredging activity within the Scorpion stream channel would require a permit review from the Corps of Engineers. A Section 401 water quality certification also would need to be obtained from the state's central coast regional water quality control

PARK OPERATIONS AND FACILITIES

Mainland Operations

To improve the operational efficiency of mainland operations for all transportation functions, maintenance would be relocated within Ventura Harbor. The original headquarters would be modified to meet all NPS visitor, educational, and administrative needs. (See "The Mainland" section for more details.) In the interim, park operations would continue to be housed in the visitor center/headquarters complex and the leased auxiliary office buildings in the Ventura Harbor area.

Park Roads

Under alternative 3, the road segments on Santa Rosa and Santa Cruz islands that have unacceptable impacts on resources or that are not essential for park operations would be removed and the landscape would either be restored or the roads would be converted to hiking trails if appropriate. (For more details, see the island descriptions below.) All roads may be realigned to remove safety hazards and deal with erosion and landslide problems.

Education/Research Facilities

Like alternative 2, in alternative 3 the park staff would facilitate research and monitoring that supports conservation of natural systems, preservation of cultural resources, and place-based learning and conservation strategies. A research/education center would be developed on Santa Rosa Island to support park education and research field work.

Other Infrastructure and Facilities

Table 12 shows the changes in infrastructure and facilities compared to alternative 1. Unless otherwise indicated, all facilities and infrastructure identified under alternative 1 would continue to be maintained in this alternative. The items shown with asterisks may be built pending additional studies. Under alternative 3 both new administrative and visitor facilities would be built in the park. Although there would be several new facilities, many would be occupied and maintained by concessioners and other partners.

Under alternative 3 several new administrative facilities would be built at Scorpion Valley and Prisoners Harbor on Santa Cruz Island, and at Bechers Bay on Santa Rosa Island (see details on the islands later in this section).

TABLE 12. CHANGES IN INFRASTRUCTURE AND FACILITIES IN CHANNEL ISLANDS NATIONAL PARK UNDER
ALTERNATIVE 3

Area	Facilities and Infrastructure	
Mainland	modify the existing visitor/education center and headquarters to accommodate expanded visitor services consolidate transportation and maintenance functions within Ventura Harbor	
	establish a visitor contact station in Oxnard maintain a visitor contact station in Santa Barbara	
Santa Barbara Island	no changes	
Anacapa Island	public access to the lighthouse and new exhibits reduction in campsites from 30 to 25 campers/night two new employee housing units elimination of the efficiency apartment in the historic generator building new small equipment storage building replacement of the crane at the landing cove	

Chapter 2: Alternatives, Including the Preferred Alternative

Area	Facilities and Infrastructure
East Santa Cruz Island	possible removal of some road segments or conversion
	to trails*
East Santa Cruz Island – Scorpion Valley and	adaptive reuse of the historic bunkhouse at Scorpion
Smugglers Cove	new barn structure for interpretive exhibits and
	programs at the current corral location
	new kayak storage facility
	additional restrooms with a changing area at Scorpion
	reconfiguration of the Scorpion campground and new restrooms if necessary
	presentation area between upper and lower campgrounds
	new concession housing west of the lower campground for up to 18 employees
	replacement of six temporary housing units with permanent structures and provision for office space
	relocation of maintenance operations in the corral
	area
East Santa Cruz Island – Prisoners Harbor and Rancho Del Norte	adaptive reuse of the warehouse as a visitor contact and orientation center; part of the warehouse
Rancho Dei Norte	would continue to be used for storage of supplies and equipment
	new restrooms near the warehouse
	new 24-person campground near Prisoners Harbor new storage facility and parking spaces
	establishment of a new education center/volunteer camp near Prisoners Harbor
	new NPS housing east of Cañada del Puerto
Santa Cruz Island	15.9 miles of roads maintained for administrative purposes (includes TNC easement road)
Santa Rosa Island	new 75-person campground at Bechers Bay
	new campground, day use facilities, and ranger station at Johnson's Lee
	new field station for research/education
	new visitor contact station at the pier
	adaptive reuse and possible new construction of structures in the historic ranch complex as lodging*
	adaptive reuse of ranch structures as a ranger station
	two new employee bunkhouses
	new maintenance facility and maintenance storage area for visitor transport vehicles
	NPS concession transportation staging area
	adaptive use of historic generator barn to support concession/interpretation/park operations
	adaptive reuse of historic horse barn for visitor services, interpretation, and concession operations
	decrease number of campers at Water Canyon campground from 75 to 50 campers/night
	possible removal of some road segments or conversion to trails*

Area	Facilities and Infrastructure
San Miguel Island	new small equipment storage building
	new spike camp
	limited number of concession-operated fixed-wing aircraft would be permitted to use the existing airstrip at the ranch complex (on a trial basis)

^{*}These new facilities may be built or roads removed pending the results of additional studies.

Park Staffing

Under alternative 3, park staffing levels would increase by 17 with full implementation of the plan. Additional staff would be needed to provide visitor services at the mainland visitor center and on the islands, manage concession operations, maintain new facilities, and monitor and manage visitors and resources on the islands. Table 13 shows the changes in staffing levels from alternative 1. Only changes are shown. (Facility management, resource

management, visitor and resource protection, and interpretation divisions would all increase.) As in alternative 1, position management planning would be used to distribute staff expertise and specialties. (Concession staff, volunteers, and other partners also would be more relied on to help manage visitors, facilities, and resources than under alternative 1.) Staffing changes would be phased in over the implementation of the plan.

TABLE 13. CHANGES IN PERMANENT PARK STAFFING LEVELS FROM CURRENT MANAGEMENT (IN FTES)

Title	Number of FTEs
Administration	1
Interpretation	4
Visitor and Resource Protection	4
Natural Resources	2
Cultural Resources	2
Maintenance	4
Transportation	0
TOTAL	17

Alternative 3

Estimated Costs

This section explains the rationale, cost estimates, prioritization, and phasing for the preferred alternative of the general management plan. Park operations are uniquely costly at Channel Islands National Park as a result of managing five islands spread over large distances, plus mainland functions. Operational support is expensive due to high ocean transport costs and highly variable weather and ocean conditions. Providing critical infrastructure and services on the islands (e.g., service cranes, piers, and docks) has higher costs than most parks.

Project costs have been carefully developed and proposals have been prioritized given fiscal constraints. The prioritization and phasing of projects in the general management plan emphasizes maintaining existing highpriority facilities, including recently acquired facilities and historic assets. Proposed facilities are limited to those considered essential to fulfilling the park's purpose. Full implementation of the preferred alternative may take 20 to 40 years and has an estimated total cost of \$62.4 million. Costs are split into "essential" and "desired" cost categories, totaling \$21.5 million and \$40.9 million, respectively. Essential costs are for projects that are critical to preserve fundamental resources and values, maintain existing high-

MITIGATIVE MEASURES

The following mitigative measures would be applied under all of the alternatives by NPS staff to avoid or minimize potential impacts on natural and cultural resources from construction activity, visitor use, and park operations.

NATURAL RESOURCES

General

- Park resources, including air, water, soils, vegetation, and wildlife, would be inventoried and monitored to avoid or minimize impacts of human activities and facilities on the islands.
- New facilities would be built in previously disturbed areas or in carefully selected sites with as small a construction footprint as possible.
- Site-specific surveys would be conducted before any ground disturbance takes place to make sure fossils were not present and would not be affected. If important paleontological resources were identified, the Park Service would attempt to reroute, relocate, or otherwise mitigate impacts from the actions being taken.
- New facilities would be built on soils that are suitable for development. Soil erosion would be minimized by limiting the time that soil is left exposed and by the use of various erosion control measures, such as erosion matting or silt fencing. Once work is completed, construction areas would be revegetated with native plants in a timely manner.
- Interpretive displays and programs, ranger patrols, and regulations on use levels would be used to minimize impacts from visitors.
- Areas used by visitors (e.g., trails) would be monitored for signs of native vegetation disturbance. Public education, revegetation of disturbed areas with native

- plants, erosion control measures, and barriers would be used to control potential impacts on plants from trail erosion or social trails.
- Construction materials and supplies for island operations would be stored, transported, and inspected in a manner to minimize the potential for transporting nonnative plants or animals to or between islands.

Water Resources

- Best management practices, such as the use of silt fences, would be followed to ensure that construction-related soil erosion and loss was minimal and to prevent long-term impacts on water quality, wetlands, and aquatic species.
- Absorbent pads and booms would be kept close at hand and be readily available to clean up spills.
- Equipment would be regularly inspected for leakage of petroleum and other chemicals.
- Construction staging areas would be well away from surface water features if feasible. Likewise, no vehicle maintenance or refueling would occur within 100 feet of streams or the shoreline.
- Areas would be designated where refueling or construction vehicle and equipment maintenance would be performed, and containment devices or structures, such as temporary earth berms, would be placed around these areas.
- Revegetation plans would be developed for areas impacted by construction activities and would include the use of native species, as well as salvaging plants and topsoil.
- Any activities involving dredging or placing fill material below the ordinary high water line of streams, such as Scorpion Creek, or below the mean high

- tide line would comply with requirements of sections 404 and 401 of the Clean Water Act and with other applicable state permit programs. Impacts from any potential fill or dredge activities would be assessed further and specific mitigation measures identified as part of an environmental compliance document that would be prepared in conjunction with the permit process.
- For new facilities, and to the extent practicable for existing facilities, stormwater management measures would be implemented to reduce nonpoint source pollution discharge from roads and other impervious surfaces. Such actions could include oil/sediment separators, infiltration beds, and use of permeable surfaces and vegetated or natural filters to trap or filter stormwater runoff.

Floodplains and Wetlands

- Wetlands would be delineated by qualified NPS staff or certified wetland specialists and marked if construction of new facilities were to occur near them.
- New developments would not be built in wetlands, if feasible. If avoiding wetlands was not feasible, other actions would be taken to comply with EO 11990, "Protection of Wetlands," the Clean Water Act, and DO-77-1: Wetland Protection.
- Special precautions would be taken to protect wetlands from damage caused by construction equipment, erosion, siltation, and other activities with the potential to affect wetlands (e.g., delineation of construction site limits and placement of silt fences). Construction materials would be kept in work areas, especially if the construction takes place near natural drainages.
- If possible, new structures, other than water-related developments such as boat docks, would be located outside of 100-year floodplains. Fuel storage facilities and

- storage or toxic or hazardous materials would be located outside of the 500-year floodplains.
- As noted in the "Affected Environment" section, all of the park facilities in the Scorpion Valley are in the floodplain (flood channel). No new permanent facilities would be built in the flood channel. Continued use of the existing facilities would require the continued periodic excavation of sediment from the channel to keep the stream in the active channel away from park facilities, although even with channel excavation it can be expected that floodwaters would continue to periodically damage the masonry and nearby structures (NPS 2003b). This excavation would occur approximately from a point 300 feet downstream from the windmill to a point somewhat upstream of the confluence of the horse corral tributary; and the dimensions excavated would be about 20 to 25 feet wide by 4 to 5 feet deep (NPS 1998). Construction equipment would be required to stay on the creek bed in the area where sediments were being removed, instead of being driven along the banks of the creek, which would damage vegetation.

The following mitigation measures apply only to alternatives 2 and 3.

- Because the Scorpion masonry building and other ranch structures would continue to be vulnerable to damage and loss during large floods, even with the above measures, no irreplaceable records, archaeological artifacts, or museum collections would be placed in the buildings. Signs also would be placed in the masonry building informing visitors and staff of the flood risk and suggested actions in the event of flooding (e.g., an evacuation route).
- In the Prisoners Harbor area, because floods would not be expected to occur frequently, managers could elect to simply

clean up and repair the building after future flood events. To protect the warehouse, low-rolling berms may be contoured in the vicinity of the structure to redirect flows back toward the stream channel if it floods. Alternatively, the Park Service would work with The Nature Conservancy to maintain the levee upstream of the well house area (which is outside the park) to provide additional flood protection to structures in the Prisoners Harbor area. Also, if new structures are built in this area, elevating the structures above the existing ground surface by about 2 feet would also protect the structures from floods.

Native Vegetation and Wildlife

- Facilities would be designed and sited to use previously disturbed sites to the extent practicable. Other individual management actions to avoid or minimize the extent and severity of impacts would also be implemented, such as localized area or seasonal use restrictions and confining or directing use through the use of barriers, trails, and designated campsites.
- Restoration of native vegetative communities would rely on natural regeneration and succession, as well as active measures. The main goal is to assist natural regeneration in reestablishing a sustainable native plant community. Rehabilitation of road corridors would include removal of the existing road surface, supplemented with soil salvage, removal of nonnative plant species, scarification, mulching, seeding, and/or planting with native species.
- Visitors would be informed about the special nature of Channel Islands' ecosystems and the potential for spreading nonnative species on the islands before they come to the islands. Boot scrapers, brushes, and other means would be provided to visitors to reduce the

- likelihood of accidentally introducing species on the islands.
- Visitor use areas would be monitored for signs of native vegetation disturbance and the introduction of nonnative species.
 Public education, revegetation of disturbed areas with native plants, erosion control measures, and barriers would be used to control potential impacts from visitors along roads, trails, or social trails.
- A variety of techniques would be employed to minimize or avoid impacts on native vegetation and wildlife, including visitor education programs; ranger patrols; and use restrictions (permitted activities, locations, and times) in areas with rare plants, vegetative communities, and/or sensitive wildlife populations and habitats.

Special Status Species (Threatened and Endangered Species, Pinnipeds, Endemics)

Surveys would be conducted for special status species before implementing any action that might cause harm. Facilities would be designed and sited to avoid adverse impacts. In consultation with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service, and California Department of Fish and Wildlife, measures would be taken to protect any sensitive species and their habitat.

The Park Service would determine measures to protect marine mammals during pile removal and installation in consultation with the National Marine Fisheries Service. This would include evaluating the availability and feasibility of the construction equipment, methods, and manner of construction in order to reduce impacts on the lowest level practicable. Measures that may be applied include predrilling by the construction contractor to reduce noise from driving piles, establishing safety zones, and monitoring marine mammals.

Management practices to protect western snowy plover and California brown pelican nesting areas and pelican roosting areas would continue to be implemented, such as closing beaches to visitor use, prohibiting camping on beaches during nesting periods, prohibiting pets on the islands, monitoring the nesting areas throughout the breeding season, and minimizing trash along the beach that attracts predators. The nesting areas that are more vulnerable to visitor disturbance because of their accessibility would continue to be more intensively monitored to protect the birds. The Park Service would continue to work cooperatively with the Fish and Wildlife Service to identify and implement appropriate mitigation measures to protect plover and pelican nesting and roosting areas within the park.

Where visitor use near listed or rare plant populations would occur, such as Lobo Canyon, and there is the likelihood of disturbance to plants, visitors would be alerted about the need to stay on trails. If necessary, plant populations would be protected by placement of signs and fencing. New developments, including trails, would be sited to avoid disturbing or providing access to sensitive endemic plant populations.

Fire is a special concern on Santa Rosa and Santa Cruz islands. A wildfire could extirpate several federally listed plant species. To address this potential threat, NPS staff would take the following actions.

- Educate visitors and NPS staff about the potential wildfire threat, why campfires are not permitted, and the need for care when using camp stoves in the backcountry.
- Close areas when there is a high fire danger.
- If a fire occurs prior to elimination of nonnative animals, erect fences around the plants at high risk of extirpation.

CULTURAL RESOURCES

The National Environmental Policy Act requires a discussion of the "appropriateness" of mitigation and an analysis of the effectiveness of mitigation. A reduction in the intensity of an impact from mitigation is an estimate of the effectiveness of this mitigation under the National Environmental Policy Act. It does not suggest that the level of effect, as defined by implementing regulations for Section 106 of the National Historic Preservation Act, is similarly reduced. Although adverse effects under Section 106 may be mitigated, the effects remain adverse.

Adverse impacts on properties listed in, or determined eligible for listing in, the national register would be avoided if possible. If adverse impacts could not be avoided, these impacts would be mitigated through a consultation process with all interested parties.

Mitigation includes the avoidance of adverse effects on cultural resources. Avoidance strategies may include the application of the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation or design methodologies recommended in DO-28: Cultural Resource Management Guideline; NPS Management Policies 2001, Chapter 5; DO-28A: Archeology, 36 CFR 79 (with guidelines for curating archeological collections); and the Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act (2008). Presented below is a description of typical mitigation measures.

Archeological Resources (Including Submerged Maritime Resources)

Wherever possible, projects and facilities would be located in previously disturbed or existing developed areas. Any undertakings

under alternative 2 would include substantial testing during the planning phase to avoid impacts on archeological resources. The park would make every effort to avoid archeological resources in siting its development projects and avoidance of ground disturbance. Facilities would be designed to avoid known or suspected archeological resources. If avoidance of archeological resources was not possible, mitigation strategies would be developed in consultation with all interested parties to recover information that makes sites eligible for inclusion in the national register.

Archeologists would monitor grounddisturbing construction in areas where subsurface remains might be present. If previously unknown archeological resources were discovered during construction, work in the immediate vicinity of the discovery would be halted until the resources could be identified, evaluated, and documented, and an appropriate mitigation strategy was developed, if necessary, in consultation with the California state historic preservation office. Mitigation work involving submerged maritime resources would be undertaken in cooperation with the state of California as necessary. In the unlikely event that human remains, funerary objects, or objects of cultural patrimony were discovered during construction, applicable provisions of the Native American Graves Protection and Repatriation Act would be implemented.

Historic Structures/Buildings

All project work relating to historic structures / buildings would be conducted in accordance with the guidelines and recommendations of the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings. Typical mitigation measures for historic structures / buildings include measures to avoid impacts, such as rehabilitation and adaptive reuse, designing

new development to be compatible with surrounding historic properties, and screening new development from surrounding historic resources to minimize impacts on cultural landscapes and ethnographic resources.

Cultural Landscapes

All project work relating to cultural landscapes would be conducted in accordance with the guidelines and recommendations of the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. Typical mitigation measures for cultural landscapes include measures to avoid impacts, such as designing new development to be compatible with surrounding historic properties and screening new development from surrounding cultural landscapes to minimize impacts on those landscapes. Cultural landscape reports would be prepared prior to projects with potential for impacts on contributing features of cultural landscapes to ensure that adverse impacts on cultural landscapes are avoided or minimized.

Ethnographic Resources

The Park Service would continue to consult with culturally associated American Indian tribes and other traditionally associated groups to develop appropriate strategies to mitigate impacts on ethnographic resources. Such strategies could include identification of and assistance in providing access to alternative resource gathering areas, continuing to provide access to traditional use or spiritual areas, and screening new development from traditional use areas to minimize impacts on ethnographic resources.

Scenic Resources

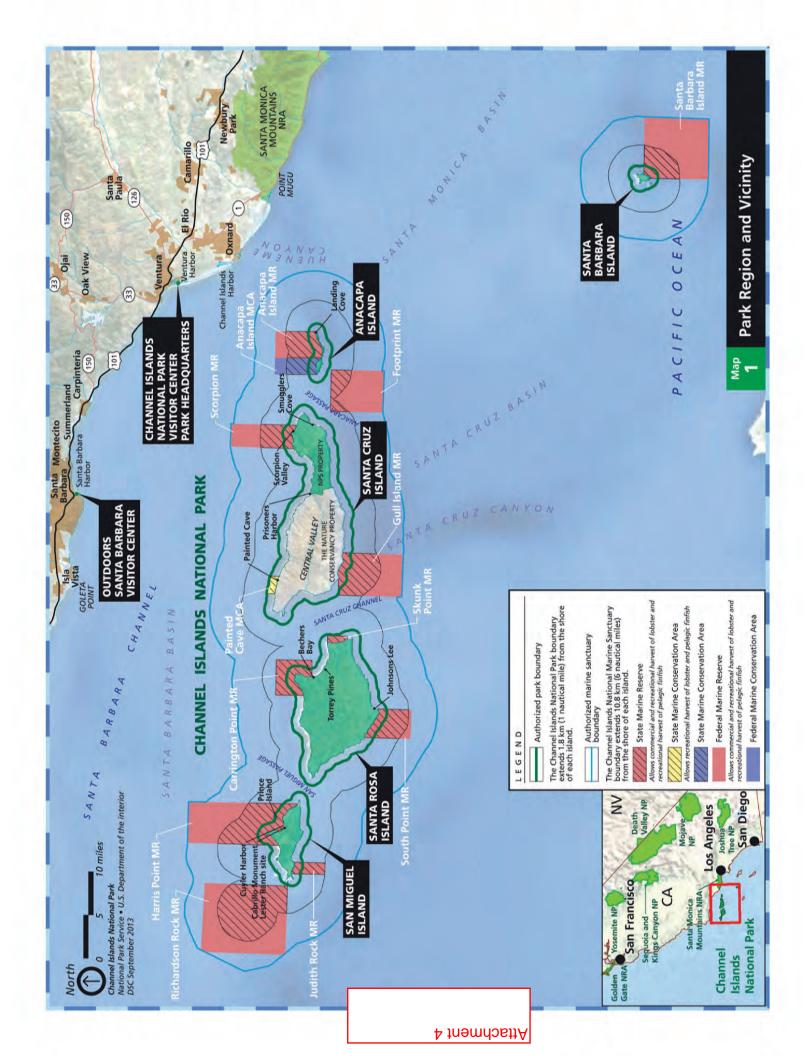
Mitigation measures are designed to minimize visual intrusions. These include the following:

- Where appropriate, use facilities such as boardwalks and fences to route people away from sensitive natural and cultural resources, while still permitting access to important viewpoints.
- Design, site, and construct facilities to avoid or minimize visual intrusion into the natural landscape.
- Provide vegetative screening, where appropriate.

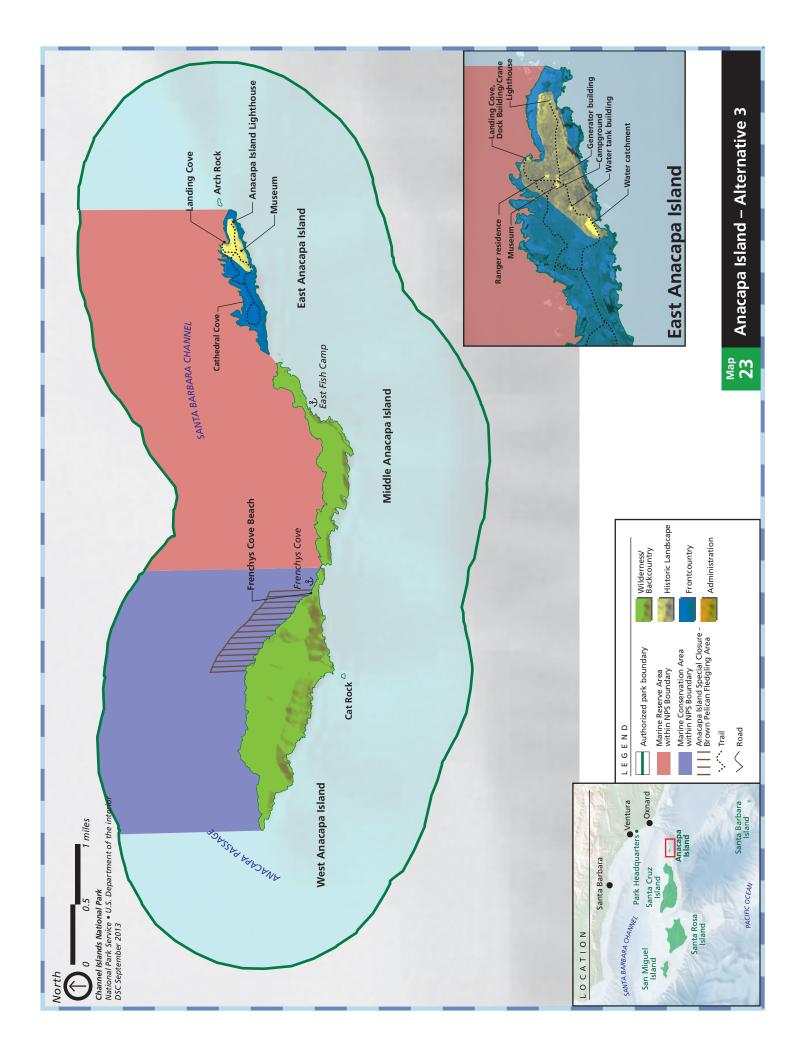
SUSTAINABLE DESIGN AND AESTHETICS

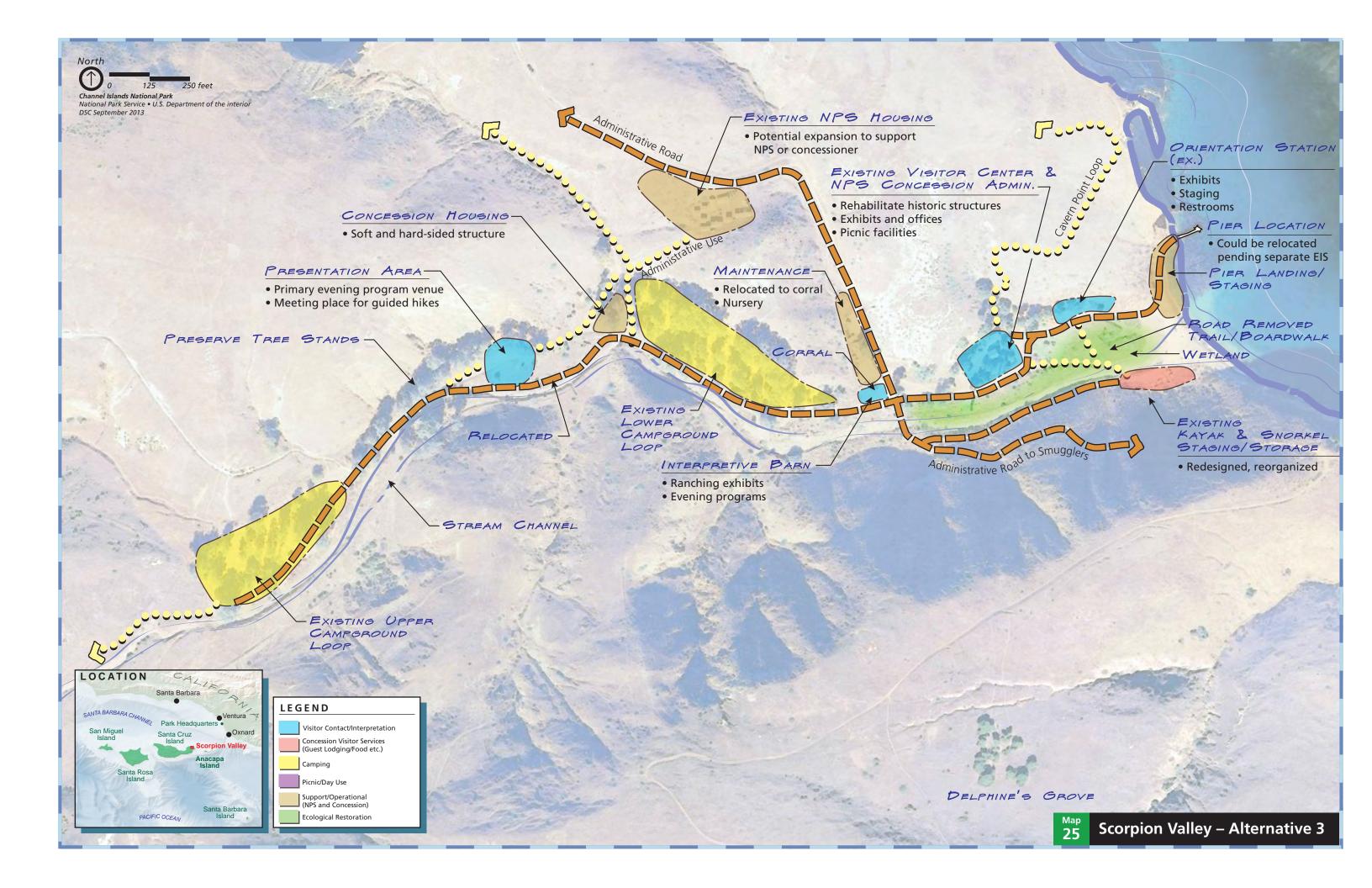
The following measures would be followed:

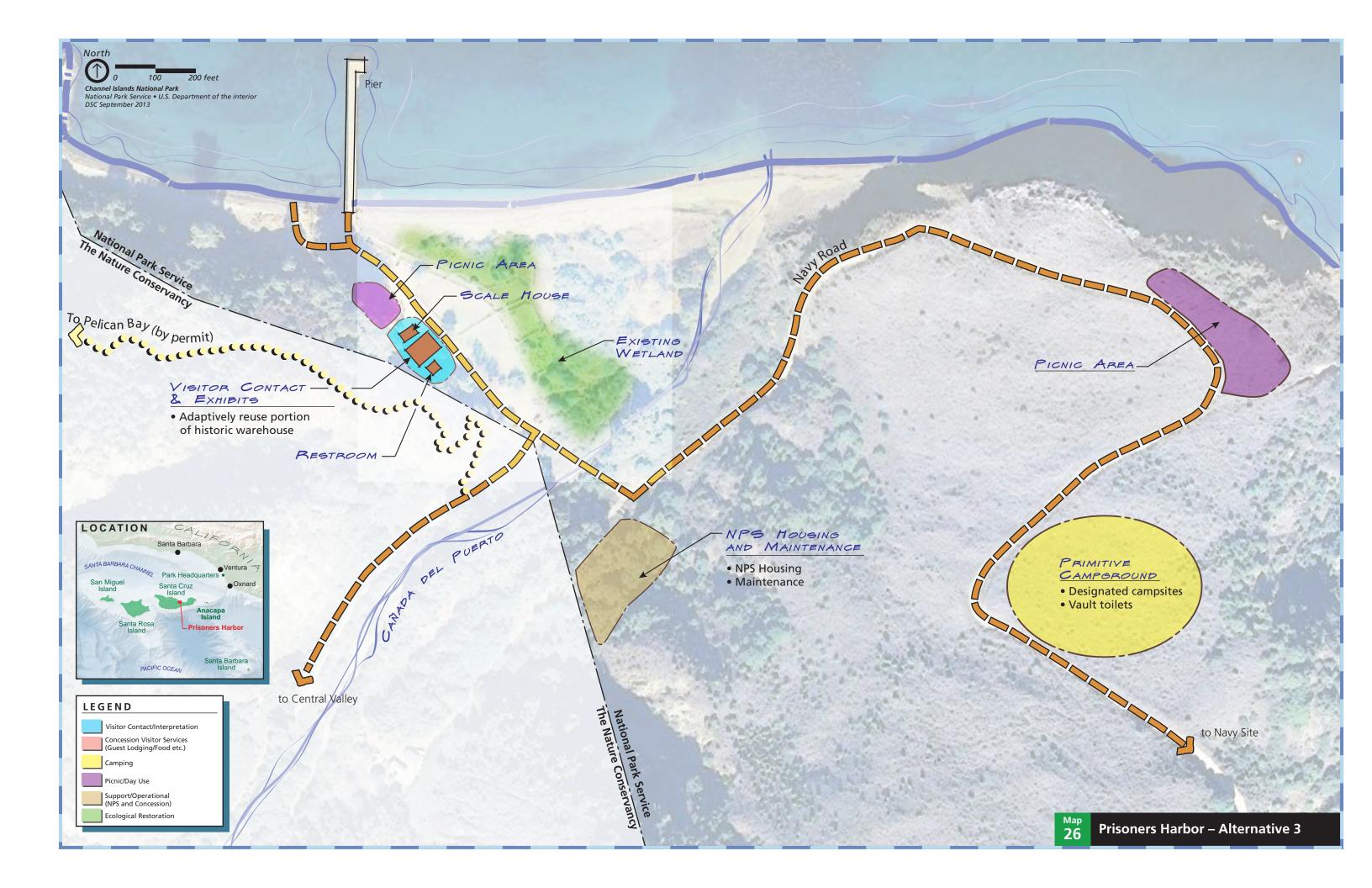
- Projects would avoid or minimize adverse impacts on natural and cultural resources.
- Development projects (e.g., buildings, facilities, utilities, roads, bridges, and trails) or reconstruction projects (e.g., road reconstruction, building rehabilitation, and utility upgrades) would be designed to work in harmony with the surroundings, particularly in historic districts.
- Projects would reduce, minimize, or eliminate air and water nonpoint source pollution.
- Projects would be sustainable whenever practicable by recycling and reusing materials, by minimizing materials, by minimizing energy consumption during the project, and by minimizing energy consumption throughout the lifespan of the project.

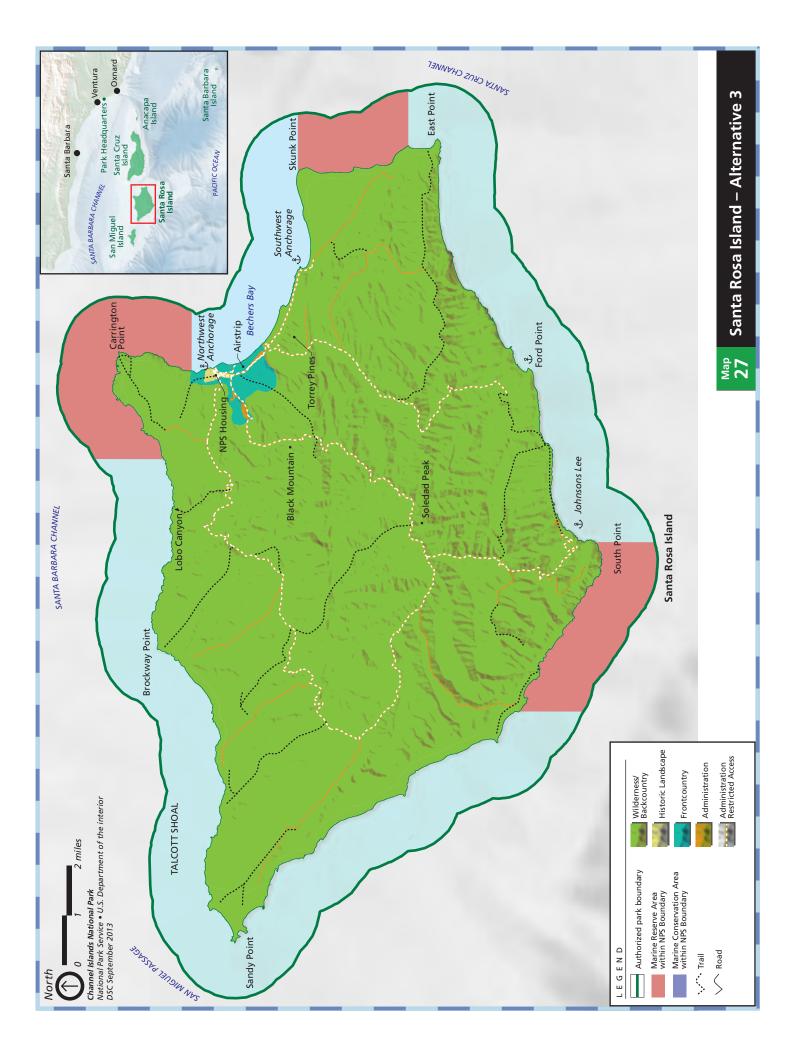


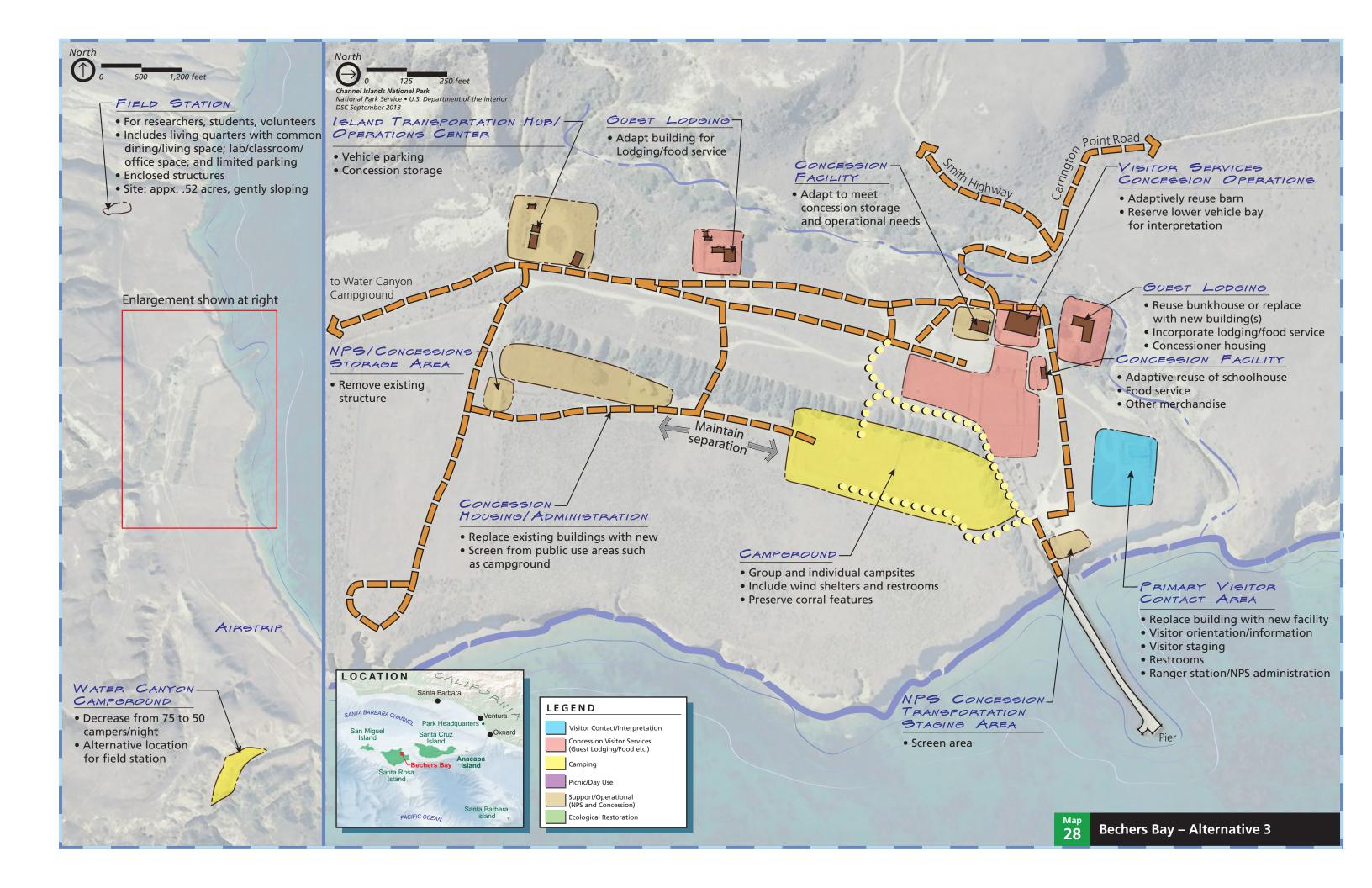


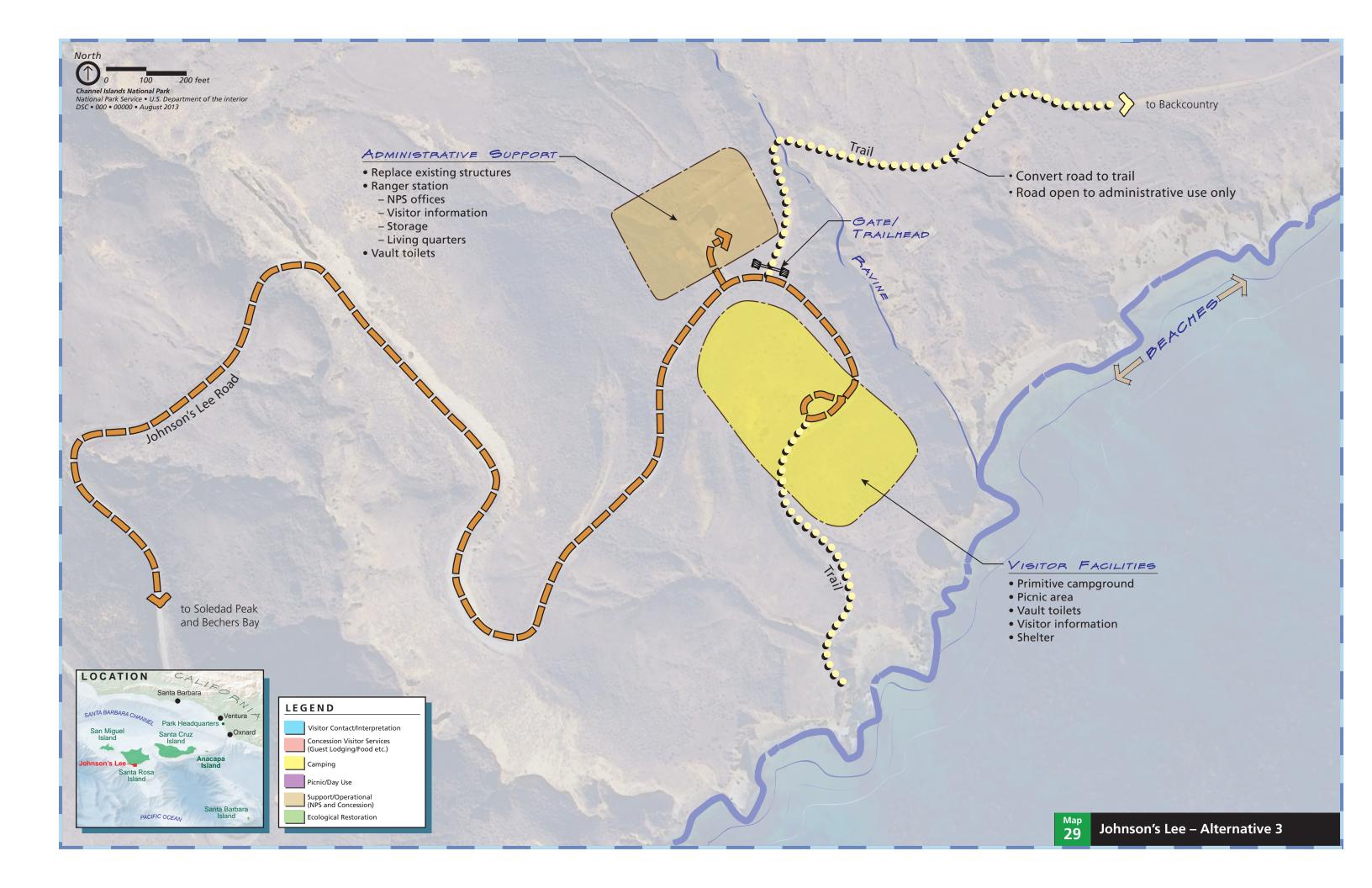


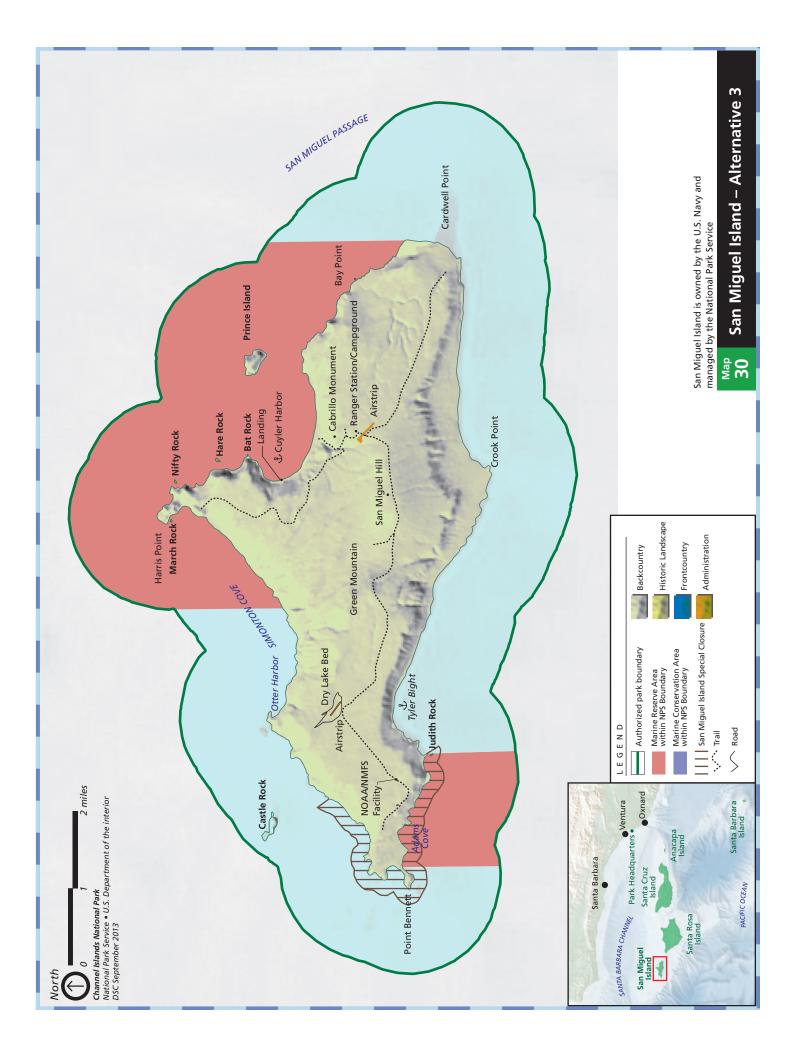


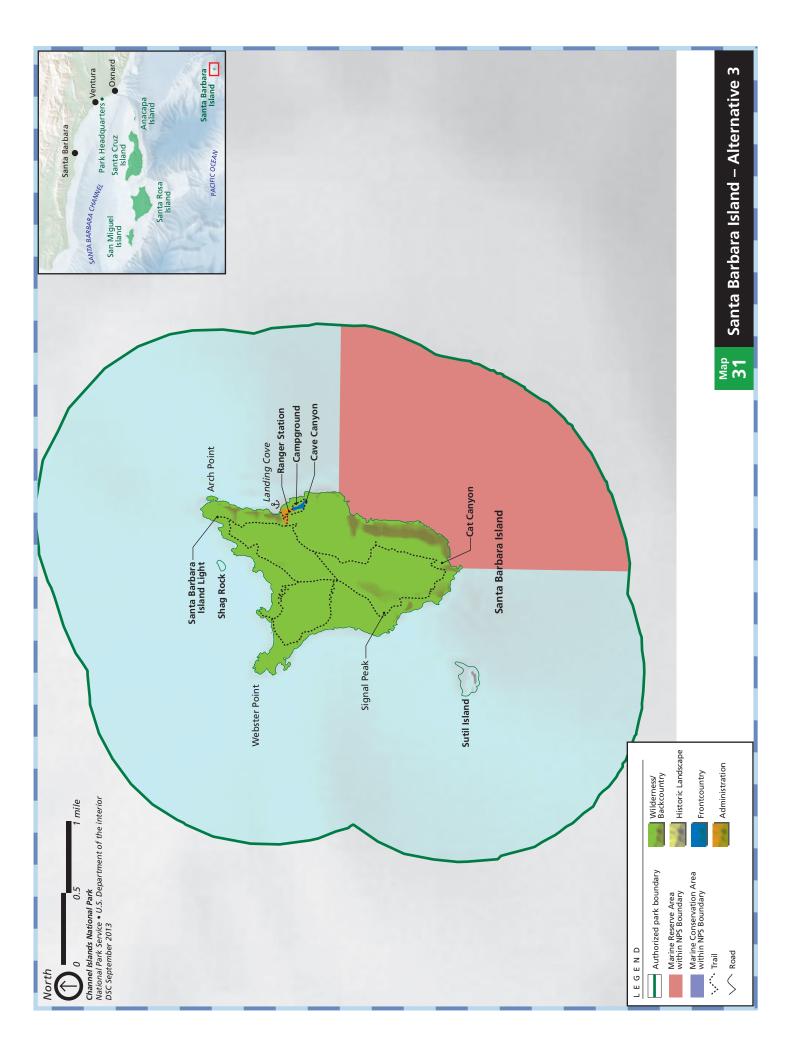












45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE (415) 904-5200 FAX (415) 904-5400 TDD (415) 597-5885



May 19, 2015

Chris Stathos Department of the Navy Commander Navy Region Southwest 937 No. Harbor Dr. San Diego, CA 93132-0058

Attn: Deb McKay

Re: **ND-0015-15**, Navy, Negative Determination, Solar Systems, Monterey, Ventura,

Orange, and San Diego Counties

Dear Mr. Stathos:

The Navy has submitted a negative determination for the installation of photovoltaic solar systems at five Navy bases in California, four of which are in or near the coastal zone. Two of these four bases are in Monterey: the Naval Support Activity (NSA) Monterey, Main Site (south of Del Monte Blvd.) and Annex Site (near the Monterey Peninsula Airport). The third Navy base near or within the coastal zone is in Port Hueneme: the Naval Base Ventura County (NBVC), Port Hueneme. The fourth is the Naval Weapons Station in Seal Beach. (The fifth is in El Centro, too far inland to consider reviewing for coastal effects.)

The Port Hueneme system would be a carport-mounted solar system located in a paved parking area south of Highland Dr./east of Island View Dr. The system would be 12-14 feet high and would not affect public views.

Five of the Monterey Main Site systems would be carport-mounted systems, with two located in existing parking lots south of Del Monte Avenue, one east of Sloat Ave., and two in existing parking lots east of Morse Drive. The proposal for the Monterey (Main Site) system would also consist of several rooftop-mounted systems, installed at existing buildings (Nos. 426 and 427). These rooftop systems would be pitched and the panels oriented south or southwest, with the panel fronts aimed towards the sky. (The coastal zone is in the opposite direction, northward, across Del Monte Ave.)

At the Monterey Annex site near the Airport (which is further from the coastal zone), three carport-mounted systems would be installed, near the southern boundary of the Annex, north of a runway for Monterey Peninsula Airport, and south of Euclid Ave. Rooftop-mounted systems would also be installed on the roofs of Bldg. Nos. 700, 702, and 704, south of Euclid Ave. and west of Airport Rd.

cc:

The system at Seal Beach would be an 8 ft. high, ground-mounted system located between Kitts Highway and Third St., in a developed area north of the Seal Beach National Wildlife Refuge. This system would also not affect public views.

All the above systems would be located in existing developed areas and where they would not affect scenic public views, public access and recreation, environmentally sensitive habitat, or historic structures. Best Management Practices would be implemented during construction, and the activities would not adversely affect water quality.

In conclusion, the Commission staff **agrees** with the Navy that the proposed projects would not adversely affect coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Mark Delaplaine of the Commission staff at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,

(for) CHARLES LESTER Executive Director

Santa Cruz, Ventura, and Long Beach District Offices

45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE (415) 904-5200 FAX (415) 904-5400 TDD (415) 597-5885



May 28, 2015

Eric Nelson, Refuge Manager Humboldt Bay National Wildlife Refuge 1020 Ranch Rd. Loleta, CA 95521

Re: **ND-0017-15** U.S. Fish and Wildlife Service, Demonstration Sea Level Rise Adaptation European Beachgrass Removal Project, Lanphere Dunes, Humboldt Bay National Wildlife Refuge, Humboldt Co.

Dear Mr. Nelson:

The U.S. Fish and Wildlife Service (Service) has submitted the above-referenced negative determination for a demonstration project, consisting of the manual removal of European Beachgrass plants within a four-acre area (the "Bair Parcel"), located in the northern portion of the Lanphere Dunes Unit of the Humboldt Bay National Wildlife Refuge (Refuge). The project is designed to test a premise developed by the Service, based on three years of monitoring at the Refuge, that replacing invasive European beachgrass with native species will facilitate naturally occurring dune migration over time in the presence of anticipated Sea Level Rise. Past monitoring has shown that European beachgrass inhibits natural dune migration, while native vegetation facilitates such natural migration. The Service is concerned that, without natural vegetation the dunes will simply erode away, rather than transition inland, in the face of Sea Level Rise.

The demonstration project would consist of several segments with differing natural vegetation mixes, as well as control segments, to enable comparisons. The project would not adversely affect environmentally sensitive habitat (including dunes and wetlands), or listed or special status species (including but not limited to Menzies wallflower, beach layia, dark-eyed gilia, American glehnia, and western snowy plover).

The beachgrass vegetation will be removed manually and trucked to either a compost site in Arcata, or burned, with assistance from the Bureau of Land Management (BLM), which has experience in similar treatment on its lands. If the latter, the burning will be limited to times and methods specified by local air district requirements, which include preparation and review of burn management plans, and limiting burning to times when smoke would be transported seaward and away from residences and public areas. The demonstration project will be monitored (including both vegetative and topographic monitoring). Measures will be implemented to protect cultural resources. The Service states:

Through short- and longterm monitoring of the response of the foredune to restoration, jour understanding of foredune processes will be increased. The demonstration site will provide information on how different assemblages of plants located at different

topographic positions influence the ability of the foredune to translate up and inland while maintaining its integrity. The results of this project have the potential to guide future adaptation efforts regionally.

The Commission staff has previously concurred with previous Service proposals for removal of European beachgrass, include specific authorization of beachgrass removal in ND-092-97 (exotic beachgrass eradication, Lanphere Dunes), and, more generally, as included among the adaptive habitat management measures in ND-031-09 (the Comprehensive Conservation Plan (CCP) for the Refuge). The Commission staff has also concurred with two BLM negative determinations for non-native beachgrass removal and burning on BLM lands (ND-047-08 and ND-094-03), which were proposed to improve substrate to enhance snowy plover nesting.

Under the federal consistency regulations (Section 930.35), a negative determination can be submitted for an activity "which is the same as or similar to activities for which consistency determinations have been prepared in the past." The previous paragraph lists the similar and related determinations the Commission staff has concurred with. We therefore **agree** that the demonstration project would be "the same as or similar to" the previously-concurred with restoration projects and management plan, would provide useful scientific information, and would provide overall benefits for (and would not adversely affect) coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. Please contact Mark Delaplaine at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,

(for) CHARLES LESTER

Executive Director

cc: North Coast District

45 FREMONT STREET, SUITE 2000 SAN FRANCISCO, CA 94105-2219 VOICE AND TDD (415) 904-5200



May 29, 2015

Christopher Eng, Acting Chief Environmental Section A U.S. Army Corps of Engineers San Francisco District Attn: Roxanne Grillo 1455 Market Street San Francisco, CA 94103-1399

RE: **ND-0019-15** Negative Determination, U.S. Army Corps of Engineers, 2015 Humboldt Bay Maintenance Dredging, with Disposal at HOODS

Dear Mr. Eng:

The U.S. Army Corps of Engineers (Corps) has submitted a negative determination for dredging of up to one million cu. yds. of predominantly sandy material to maintain existing dredge depths in the Humboldt Bay Bar and Entrance Channel, with disposal at the historically used Humboldt Open Ocean Disposal Site (HOODS), 3.1 miles offshore of the South Spit (and within the Quadrants and Cells deemed appropriate by EPA in its authorization to the Corps). The dredging would commence in the beginning of June and last approximately 22 days.

The Commission and its staff have authorized numerous Corps Humboldt Bay Spring and Fall Maintenance Dredging Episodes, including Consistency and Negative Determinations ND-004-14, ND-022-13, ND-002-12, ND-007-07, CD-017-06 (a 4-Year authorization), ND-016-06, ND-035-05, ND-029-05, CD-005-04, ND-043-04, CD-045-98 (a 5-Year authorization), ND-024-98, ND-021-98, ND-128-97, ND-017-97, ND-091-96, ND-017-96, ND-061-95, ND-010-95, CD-064-94, CD-005-94, CD-048-93, CD-001-93, CD-089-92, ND-077-92, ND-018-92, CD-021-91, CD-001-91, and CD-031-90. These projects involved disposal at HOODS (in early years called "IODS"). Authorizations prior to mid-1990 were for disposal at SF-3 (located one mile offshore) and/or a nearshore site, in, as follows: CD-003-90 (SF-3), CD-026-89 (nearshore, south spit), CD-045-88 (nearshore, south spit), CD-031-88 (SF-3), CD-019-88 (SF-3), CD-021-87 (SF-3), CD-005-87 (SF-3), and CD-018-85 (SF-3). SF-3 was designated as an interim site, and its designation expired in December 1988.

Two major concerns have been raised in the more recent of the Commission staff's reviews. The first concern is the need to continue to monitor for shoreline erosion, and keep active plans for beach or nearshore disposal of sandy material in the event excess erosion is occurring. As the Corps notes, erosion of the north spit has accelerated in recent years, although not to the degree that the "trigger," as established in an MOU between the Commission and the Corps, has yet been exceeded. The Corps' current submittal acknowledges the need to further study and refine its capabilities for beach/nearshore disposal, and indicates a willingness to revisit whether the trigger should be modified if continued accelerated erosion is documented.

The second concern is whether dredging would entrain longfin smelt, a State listed threatened species. In our two most recent concurrences, we urged the Corps to work proactively to address concerns raised by the California Department of Fish and Wildlife (CDFW) over protection of this species. A similar issue has been raised over dredging and entrainment of longfin and delta smelt in San Francisco Bay, and while the Commission's authority does not extend to San Francisco Bay, extensive inter-agency coordination (including with the Corps) has occurred. These efforts have led to studies conducted to test dredge equipment, monitor impacts, and develop avoidance, minimization, and mitigation measures to protect (or mitigate impacts to) longfin and delta smelt.¹

In our most recent Humboldt Bay maintenance dredging concurrence, we urged the Corps to: (1) continue its discussions with the CDFW and other resource agencies concerning habitat effects, including longfin smelt monitoring and mitigation efforts in Humboldt Bay; and (2) as discussed above, continue shoreline monitoring and consideration of demonstration nearshore disposal options.

Since that concurrence the CDFW has expressed frustration that the Corps has not considered the issue as seriously as it has in San Francisco Bay. The CDFW stated to the Corps in December 2014:

As many of you know, there have been ongoing talks in San Francisco Bay regarding this issue, with mitigation credits purchased for the most recent two years of dredging. Also, per the Draft EIR recently released for comment regarding ACOE dredging in San Francisco Bay, the Regional Water Board determined the Project would have significant project and cumulative impacts to Longfin Smelt from entrainment. Recently, the Department has undergone a review of the existing data related to Longfin Smelt in Humboldt Bay and have found this species to be present year round from the larval through adult stages throughout the Bay, and also present in waters immediately offshore. As such, entrainment of Longfin Smelt is also an issue for ACOE dredging operations here in Humboldt Bay.

In San Francisco Bay, the ACOE has agreed to measures that would reduce the impacts to less than significant by: the minimization of the use of hopper dredges, implementation of various minimization measures, and compensatory mitigation. I look forward to similar discussions taking place for the Humboldt Bay area prior to any additional ACOE dredging occurring in Humboldt Bay.

The Corps has agreed to adopt a few of the measures being implemented in San Francisco Bay, but the Corps disagrees that longfin smelt would be present in the Bar and Entrance Channel when the dredging is proposed in June. The Corps' stated position is attached. The measures the Corps *has* agreed to for Humboldt Bay include: (1) lowering the draghead to at least 3 feet from the bottom of the channel prior to turning on pumps; and (2) keeping the draghead water intake doors closed to the maximum extent practicable. However, the Corps believes that using other

¹ Most recently memorialized in the SF RWQCB's tentative order for Reissued Waste Discharge Requirements and Water Quality Certification for: U.S. Army Corps of Engineers, San Francisco District Maintenance Dredging Program, 2015 through 2019.

types of dredges (e.g., mechanical dredge) may not be applicable in Humboldt Bay's offshore wave climate, and that the type of mitigation approach established for San Francisco Bay may also be inapplicable in Humboldt Bay.

Clearly, more information is needed to resolve this difference of opinion over effects to this species in Humboldt Bay. At an absolute minimum, the Commission staff believes the Corps should conduct further studies, such as trawl studies, to determine the presence or absence of longfin smelt in the time period and location of areas proposed for dredging, particularly since the Corps knows in advance when, where, and how often such dredging is necessary, and has the ability to build these efforts into its planning and budgeting processes. If studies do in fact detect the species, then further studies such as those performed in San Francisco Bay, which screened for and counted fish being entrained in representative samples of material being dredged, may become necessary. The Commission staff wishes to go on record at this time as informing the Corps that if trawl or comparable studies are not performed concurrently with this year's dredging, or at a minimum prior to any future dredge sessions, adequate to refute CDFW's assertion that the species is present, we will assume the species' presence and will not continue to administratively concur, but rather will expect the Corps to submit a consistency determination (rather than a negative determination) prior to conducting any further dredging in Humboldt Bay. Notwithstanding the public benefits of keeping Humboldt Bay navigation channels open and safe, "last minute submittals" such as the subject May 27, 2015, submittal for a project commencing on June 1, 2015, leaves the Commission staff frustrated as well.

Under the federal consistency regulations (Section 930.35), a negative determination can be submitted for an activity "which is the same as or is similar to activities for which consistency determinations have been prepared in the past." With the above caveat, we **agree** with your determination for this year's maintenance dredging that the proposed project would be similar to previously-concurred-with activities, and we **concur** with your negative determination made pursuant to 15 CFR 930.35 of the NOAA implementing regulations. As discussed in the previous paragraph, however, absent additional information we may not administratively concur with future determinations. Please contact Mark Delaplaine of the Commission staff at (415) 904-5289 if you have any questions regarding this matter.

Sincerely,

(for) C

CHARLES LESTER
Executive Director

Attachment

cc: North Coast District Office NOAA Fisheries CDFW (Bay Delta and Marine Regions) RWQCB (North Coast Region) EPA (Region 9)

Attachment – Corps Position on Longfin Smelt Issues

Humboldt Harbor and Bay Operations and Maintenance Dredging

Dredging the Bar and entrance of Humboldt Bay can only be accomplished with a seagoing hopper dredge because the swells are so large. In March 2014, U.S. Army Corps of Engineers San Francisco District (USACE) staff evaluated available data to determine if maintenance dredging at Humboldt Harbor and Bay posed a risk to longfin smelt populations. The following determinations were made:

- In 2009, the State of California, The Resources Agency, Department of Fish and Game (now known as Department Fish and Wildlife) published a Report to the Fish and Game Commission: A Status Review of the Longfin smelt (*Spirinchus thaleichthys*) in California.
- The vast majority of the literature on longfin smelt is focused on the San Francisco Bay and Delta population and documents a dramatic decline in longfin populations since the 1980s. Findings in the literature from other California estuaries reflect a similar decline.
- At the time, the most extensive recent sampling in Humboldt Bay was done between August 2003 and August 2005. During this two year period, 12 longfin smelt were captured. Six gear types were used, but the bulk of the sampling was by shrimp trawl (1072 hauls) and fyke net (45 sets). In total, roughly 21,000 individual fish were captured.
- The report also states: "Small-but-consistent catches of a few dozen longfin smelt occurred during annual sampling around a dredge disposal site about two miles offshore of Humboldt Bay." Presumably the disposal site is the federal site Humboldt Open Ocean Disposal Site (HOODS).
- It is important to note that the in bay sampling at Humboldt was in the northern embayment which is three miles from where the Federal channel is dredged. It is not stated in the report when the annual sampling takes place in the ocean, and unclear as to how close to the disposal site the sampling was conducted.
- Given the low numbers of longfin observed in Humboldt Bay it is unlikely that entrainment by hopper dredge would occur. The presence of longfin near the disposal may pose a risk of displacement to a small number of fish if they are at HOODS when dredged material is placed there.

•

As a result of the determinations listed above, USACE has concluded that the risk to longfin smelt from maintenance dredging of the Humboldt Harbor and Bay and dredged material placement is minimal.

San Francisco Bay Operations and Maintenance Dredging

In 2012, the USACE Engineer Research and Development Center (ERDC) conducted a risk assessment to analyze the potential entrainment risk of longfin and delta smelt in San Francisco Bay resulting from hopper dredging. The risk assessment also investigated the potential effects of entrainment on smelt populations. The purpose of the risk assessment was to investigate if additional information would be required to better determine the potential for entrainment and not merely to assess the risk to smelt populations. The risk

assessment is based on very limited data (i.e., 1 year of data), and therefore, is not a good indicator of actual entrainment risk (i.e., the error bars are very large). Further, for longfin smelt, ERDC scientists concluded:

- Longfin smelt entrainment impacts occurred only at the highest estimated level of
 entrainment, yet the impacts are still negligible, and that the probability of
 population declines resulting from dredging is not anticipated.
- 2011 was had an extremely large outflow. 2011 was the year entrainment monitoring occurred and the only year of data considered in the risk assessment. Therefore, the level of entrainment estimated is a very conservative estimate and is likely higher than during years exhibiting typical outflows.
- The inter-annual variation in smelt population size is high in nature (citing Bennett, 2005, and Rosenfield, 2010). Changes in median abundance may not be significant because abundance naturally fluctuates by more than an order of magnitude.

An analysis of the 2012 ERDC assessment by the U.S. Fish and Wildlife Service (USFWS) experts determined that the report overstates the potential for delta smelt entrainment. USFWS concluded that high entrainment levels are likely overstated because delta smelt are patchily distributed in the estuary, which would limit their exposure. It is likely that these conclusions can be made for longfin smelt as well.

Finally, the USACE has proposed hopper dredge minimization measures to reduce the risk of entrainment in the Central San Francisco Bay. The following minimization measures proposed for the Central San Francisco Bay are applicable to maintenance dredging in Humboldt Harbor and Bay:

- Lower the draghead to at least 3 feet from the bottom of the channel prior to turning on pumps.
- Keep the draghead water intake doors closed to the maximum extent practicable.
- Conduct hopper dredging later in the existing June through November work window in Central San Francisco Bay, dredging between October and November, when longfin smelt are less likely to be present.
 - o While this is applicable to Central San Francisco Bay, dredging the Bar and Entrance channel is scheduled to begin in June 2015. When longfin smelt begin to migrate upstream in late fall/early winter to spawn, they are not likely to be present in the Bar and Entrance channel.
 - O Dredging the Bar and Entrance channel is not likely to affect larval smelt because they are not likely to be present in this area.

The USACE has proposed mitigation based on the California Department of Fish and Wildlife (CDFW) regulations for pumping water in the San Francisco Bay and Delta, and it is the formula used for pumping at the State Water Project. The mitigation is not for longfin smelt, it is for entrainment of all fish species, including the federally listed delta smelt, green sturgeon, and salmonids. This mitigation ratio would not be applicable to Humboldt Bay.