

CALIFORNIA COASTAL COMMISSION

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PROPOSED FINDINGS

ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-104-05
Staff:	MPD-SF
File Date:	10/18/2005
60 th Day:	12/17/2005
75 th Day:	1/7//2005
Commission Vote:	12/14/2005
Hearing on Findings:	2/9/2006

FEDERAL AGENCY: National Oceanic and Atmospheric Administration

**DEVELOPMENT
LOCATION:**

Various locations in the Southern California Bight, including Santa Barbara Island and Santa Cruz Island, Santa Barbara, Ventura, and Los Angeles Counties and offshore areas (Exhibit 1)

**DEVELOPMENT
DESCRIPTION:**

Habitat restoration actions under the Montrose Settlement Restoration Program (MSRP) Final Resolution Plan (FRP)

**PREVAILING
COMMISSIONERS:**

Commissioners Burke, Clark, Kruer, Neely, Padilla, Potter, Reilly, Secord, Shallenberger, Wan, and Chairman Caldwell

**SUBSTANTIVE FILE
DOCUMENTS:**

See page 36.

[Staff Note – These proposed findings are presented first with the pages containing tracked changes (pp. 1-6, 10-12, 18-21 and 32-34), followed by the full set of findings with the changes accepted and the documented re-formatted and re-paginated.]

EXECUTIVE SUMMARY

The National Oceanic and Atmospheric Administration (NOAA) has submitted a consistency determination for a restoration program on behalf of the federal and state agency trustees of the

Montrose Settlement Restoration Program (MSRP). The restoration activities covered in this consistency determination are intended to restore natural resources injured through the 1947-1982 dumping of heavy concentrations of DDTs and PCBs into the Palos Verdes shelf area through Los Angeles County's wastewater system outfall. The Commission previously reviewed a pilot capping program intended to determine whether the site could be remediated (CD-52-00). A summary of the results of the pilot project is attached as Exhibit 3. EPA is continuing to study alternatives and has not yet arrived at a final remediation plan.

The activities proposed in the subject consistency determination would consist of:

1. Providing Public Information to Restore Lost Fishing services;
2. Augmenting Funds for Implementing Marine Protected Areas in California;
3. Monitoring the Recovery of Peregrine Falcons on the Channel Islands;
4. Restoring Alcids to Santa Barbara Island;
5. Restoring Seabirds to Scorpion and Orizaba Rocks on Santa Cruz Island; and
6. Restoring Seabirds to Baja California Pacific Islands.

The activities are intended to protect and restore, where feasible, marine resources and environmentally sensitive habitat, and to protect human health and benefit commercial and recreational fisheries. The activities would provide net habitat benefits, include monitoring efforts, and future coordination with the Commission where appropriate. NOAA has agreed to consult with the Commission staff before using any herbicides in its invasive species eradication efforts.

At the November Commission meeting concerns were raised over several elements that were not specifically analyzed in detail in NOAA's consistency determination (although they were analyzed in the restoration project's Draft EIS and response to comments). Specific areas of concern included whether NOAA's proposed 3-5 year cessation of funding human intervention efforts involving manipulating bald eagle eggs on Santa Catalina Island could threaten bald eagle populations on the island (such as by disrupting pair bonds and leading to eagles leaving the island), and whether existing and proposed fish advisories to recreational and commercial fishers were adequate.

According to several letters and testimony presented at the Commission's December 14, 2005, hearing, there is a paucity of data showing what the consequences of discontinuing the funding would be, and the potential remains for eagles to abandon the island, with ecosystem-wide ecological effects. For example, EPA commented in its letter that continuing the Catalina program in the interim may assist longer term efforts, and EPA noted that the costs of continuing the efforts were a small percentage of the total funding, and that ultimately it may be cost effective if the efforts are not discontinued. The Institute for Wildlife Study (IWS) noted the difficulty in predicting how long the efforts could be discontinued without adverse consequences.

If NOAA temporarily ceases funding human intervention of bald eagle eggs and chicks at Santa Catalina Island, the Institute for Wildlife Studies (IWS) may independently raise some portion (but not all) of the funding previously provided by NOAA and carry out the activity; however the effects of these efforts are uncertain. The IWS has collected about \$50,000 of private funds (out of an estimated need of \$117,000) it needs to adequately continue the project for the upcoming year (with several months left to collect the additional funding it needs)(Exhibit 13); availability of funds for future years remains even more uncertain. It should also be noted that the IWS undertook (and resource agencies funded) the activity *before* NOAA began its funding of the program. In the event that IWS were unable to continue the program, the evidence is inconclusive as to whether cessation of human intervention will result in breaking up of pair bonds and/or eagles leaving the island. More importantly, if it turns out NOAA's assumptions are not borne out, and given the risks involved if eagles do abandon the island, in context with the relatively small effort (given the overall funding package) needed to continue the funding in the short term while long term decisions are being considered, the risks involved in discontinuing the funding at the expense of several of the other proposed restoration activities less related to bald eagle protection outweigh the benefits of retaining this funding.

On the issue of whether NOAA might abandon human intervention in the event *neither* northern nor southern Channel Islands bald eagle breeding can succeed without human intervention, NOAA has modified its initial proposal to assure that when the results of the NCI Bald Eagle Feasibility Study are known (in or around 2008), the Trustees will re-evaluate all potential options for bald eagle restoration, including measures that may be taken even if bald eagles are not able to reproduce on their own anywhere in the Channel Islands.

However, in the interim, the following condition is necessary to assure continued funding for the Catalina Island efforts:

- 1. Continued Funding for Catalina Island Bald Eagle Nest Manipulation.** NOAA and the Trustees shall reinstate funding in the amount of \$250,000/year, for 10 years, to continue the human intervention efforts it has previously funded to assure bald eagle nesting and chick hatching on Santa Catalina Island.

Without this continued funding, the restoration program would be inconsistent with the enforceable policies of the California Coastal Management Program, specifically the provisions of Sections 30230 and 30240 of the Coastal Act, which requires protection of marine resources and environmentally sensitive habitat. This finding is also based on: (1) information in NOAA's and the Trustees' Environmental Impact Statement for the restoration program, which discussed the vital significance of the bald eagle as a top predator in the entire food chain of the region, thus emphasizing this species' importance, effects to which could have adverse ecosystem-wide implications; (2) information in NOAA's and the Trustees' Environmental Impact Statement that linked the six above-proposed activities with NOAA's proposed temporary (several year) discontinuance of funding for the Catalina Island human

intervention efforts; and, finally, (3) acknowledgement that documented effects on bald eagles were a major element in the damage assessment for the Montrose lawsuit.

On the issue of the adequacy of fish advisories/education/outreach, Exhibit 9 shows fliers and advisories in a number of languages. As discussed on page 28, these advisories are widely distributed (including by the Cabrillo Marine Aquarium, Heal the Bay, local health departments, and at various local and regional events). It also bears noting that the project is intended to supplement existing activities primarily being conducted by the Environmental Protection Agency (EPA) and the California Department of Fish and Game. What NOAA is proposing can only enhance existing efforts and cannot be found to result in adverse effects to commercial and recreational fishing and/or human health. Therefore, the project is consistent with the commercial and recreational fishing policies (Sections 30234 and 30234.5) of the Coastal Act.

The project also includes enforcement of an existing access and recreation restriction, around Scorpion and Orizaba Rocks (located on the northeast side of Santa Cruz Island). Although these islets are officially closed to the public, kayakers occasionally land on the island, which results in flushing of roosting seabirds (e.g., brown pelicans and cormorants) and harassment of nesting birds. According to NOAA, trespassers have also been documented opening the nest boxes on Scorpion Rock, leading to abandonment of nests and decreased productivity. The proposed access restrictions would not be new, and as the Coastal Act provides, management of access in a manner reflecting, among other things, protection of fragile coastal resources and the need to protect natural resource areas from overuse, is warranted under the Coastal Act. The project is therefore consistent with the public access and recreation policies (Sections 30210-30214) of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION

I. Project Description. NOAA has submitted a consistency determination for a restoration program on behalf of the federal and state agency trustees of the Montrose Settlement Restoration Program. The trustee agencies are National Oceanic and Atmospheric Administration, National Park Service, U.S. Fish and Wildlife Service, California Department of Fish and Game, California Department of Parks and Recreation, and the State Lands Commission. The restoration activities covered in this consistency determination (part of a larger FRP plan) consist of six out of the 11 restoration activities ultimately contemplated in the overall FRP. The six currently proposed actions are as follows:

1. Provide Public Information to Restore Lost Fishing Services. This goal of this action is to provide information to people whose fishing experience may be affected by state fish consumption advisories and other consequences of DDTs and PCBs in ocean fish within the Southern California Bight (SCB). The Trustees would conduct various public outreach and education programs designed to help people make knowledgeable choices about where to fish, what to fish for, and how to prepare fish for consumption. Public feedback and reaction would

be the primary means of monitoring the success of the outreach and educational activities of this program. The program will require the periodic updating and replacement of outreach materials to be effective over time due to the dynamic nature of contamination levels in the fish and changes in state fish consumption advisories.

2. Augment Funds for Implementing Marine Protected Areas in California. The goal of this action is to improve fish habitat function in the SCB by augmenting funds to administer the management plan for the Channel Islands network of Marine Protected Areas (MPAs). These MPAs are currently managed and monitored by state and federal agencies, academic institutions, and non-governmental organizations. MSRP funds distributed under the DRP would likely be used to help improve currently existing subtidal fish monitoring, law enforcement, remotely operated vehicle surveys, and groundfish tagging projects. Monitoring and evaluation of this project would take place within the ongoing evaluation of the Northern Channel Island MPAs being carried out by the California Department of Fish and Game (CDFG), which has developed specific performance criteria. The Trustees would adopt these criteria.

3. Monitor the Recovery of Peregrine Falcons on the Channel Islands. This action would include monitoring and observation of peregrine falcons as well as contaminant analysis of addled eggs and eggshell measurements.

4. Restore Alcids to Santa Barbara Island. The goal of this action is to re-establish an active Cassin's auklet breeding population on Santa Barbara Island through social facilitation and habitat improvement and to improve recruitment and productivity of Xantus's murrelets through the installation of artificial nest boxes and habitat improvement. This action would involve the removal of exotic vegetation from nesting areas, revegetation with native plants, social attraction with vocalization playback systems, and the installation of nest boxes. To quantify the efficacy of the restoration efforts, a minimum of four years of monitoring is proposed. A monitoring plan will be developed to allow the Trustees to evaluate the success of the restoration efforts by collecting simultaneous information on reproductive success, site occupancy, and mortality. Due to the State threatened status and sensitivity to disturbance of Xantus's murrelets, no adults of this species will be handled.

5. Restore Seabirds to Scorpion and Orizaba Rocks (Santa Cruz Island). The goal of this action is to restore seabird habitat on Scorpion and Orizaba Rocks. Actions on both Scorpion and Orizaba Rocks would include installation of artificial nest boxes, and disturbance reduction (posting of off-limits signs and an increased NPS enforcement presence). An additional action on Scorpion Rock would be the mechanical removal of exotic vegetation and revegetation with native plants. This action may involve the use of matting or some similar method to stabilize soil in areas where erosion could prevent native plants from reestablishing themselves. To quantify the efficacy of the restoration efforts, a minimum of four years of monitoring is proposed. A monitoring plan will be developed to evaluate the success of the restoration efforts by collecting simultaneous information on reproductive success, site occupancy, and mortality. Due to the status of Xantus's murrelets and their sensitivity to disturbance, no adults of this species will be handled. For ashy storm-petrels, monitoring will be conducted on the offshore rocks and on Santa Cruz Island in order to compare the

effectiveness of this project to other nearby colonies. Monitoring sites will include Bat Cave, Cove of the Bird Eggs, Cavern Point Caves, Dry Sandy Beach Cave, Orizaba Rock (natural and artificial sites) and Scorpion Rock (artificial sites). In addition to monitoring the caves and islets for reproductive effort and success, mist-netting will be employed at Scorpion Rock to collect population (mark/recapture) information. Also the success of the exotic vegetation removal and the survival of the native plants will be monitored using established success criteria for revegetation projects.

6. Restore Seabirds to Baja California Pacific Islands. This action consists of a suite of projects designed to target Cassin's auklet, Brandt's cormorant, the double-crested cormorant, the California brown pelican, the ashy storm-petrel, and Xantus's murrelet. Although different actions would be carried out at different locations, collectively the action would consist of construction of artificial nests, social attraction with decoys and vocalization, disturbance reduction through creation of off-limits nesting areas, and possible construction of boardwalks on San Jeronimo and San Martin Islands.

Future actions *not* currently proposed, and which may trigger future NOAA consistency determinations, would include:

- Construction of artificial reefs and fishing access improvements.
- Restoration of full tidal exchange wetlands.
- Completion of a Feasibility Study and Implementation of Bald Eagle Restoration Actions.
- Restoration of seabirds to San Miguel Island.
- Restoration of seabirds to San Nicolas Island.

Of the six proposed actions, NOAA considered two to not affect the California coastal zone (i.e., monitoring the natural recovery of peregrine falcons on the Channel Islands; and restoring seabirds to Baja California Pacific Islands). NOAA has focused its consistency discussion on the remaining four activities.

II. Background. The Palos Verdes Shelf² site consists of a 43 square kilometer (17 square mile) area of DDT³- and PCB⁴-contaminated sediments in an offshore area between Point Fermin and Point Vicente (Exhibits 2-3). From the late 1940s to the early 1970s, Los Angeles area industries discharged approximately 2,000 metric tons (about 2,200 U.S. tons) of DDTs and PCBs into the ocean waters off the Southern California coast. Almost all of the DDTs released to the Southern California marine environment originated from the Montrose Chemical Corporation (Montrose) manufacturing plant in Torrance, California. The Montrose plant discharged waste into the Los Angeles County Sanitation Districts (LACSD) sewer collection system. Wastewater treatment methods employed at that time did not capture the DDTs prior to being discharged through ocean outfall pipes that empty into the Pacific Ocean

² EPA defines the Palos Verdes Shelf as the area where DDT concentrations in the sediment exceed 1 part per million (ppm).

³ DDT= dichloro-diphenyl-trichloethane

⁴ PCB = Polychlorinated biphenyls

off White Point on the Palos Verdes Shelf. Montrose also dumped DDT-contaminated waste from barges into deep ocean waters in the San Pedro Basin near and possibly en-route to Santa Catalina Island. In addition, large quantities of PCBs from numerous sources throughout the Los Angeles Basin were released into ocean waters through the LACSD and City of Los Angeles wastewater outfalls and the regional storm drain systems. Although DDTs were also released into the Southern California Bight through agricultural runoff and atmospheric deposition, these sources were found to be insignificant in comparison to the Montrose discharges. The DDT and PCB deposits cover a large area of the ocean floor between Point Vicente in the northwest and Point Fermin in the southeast (Exhibit 2).

Historically, the waters of the Palos Verdes Shelf have been used extensively by both sport and commercial fishermen. Sport fishermen angle from party boats, private boats, rocky intertidal areas and sandy beaches. To this day, high levels of DDT and PCBs are found in the active biologic zone of the Palos Verdes Shelf sediments, and fish from the Shelf are contaminated with DDT and PCBs. Generally speaking, contaminant levels are highest in bottom-feeding fish such as the white croaker and are significantly lower in fish that live higher up in the water column.

Since the 1980s and 1990s, the California Department of Fish and Game has been attempting to discourage consumption of white croaker caught in the region, and EPA has been conducting its Superfund⁵ investigations and remediation plans for the Palos Verdes Shelf. Under the Superfund litigation, by the end of October 2000, after ten years of litigation, the federal and state governments and the remaining defendants signed the last of a series of settlements. The court approved the final settlement in March 2001. Under the terms of the four separate settlement agreements, Montrose Chemical Corporation and the other defendants agreed to pay \$140.2 million plus interest to the federal and state governments. Of this amount, EPA and the California Department of Toxic Substances Control (DTSC) received \$66.25 million; the Natural Resource Trustees received \$63.95 million; and \$10 million was set aside in a special account (swing money).⁶ The Trustees have used \$35 million to reimburse past damage assessment costs and are using the remainder plus the accumulated interest to plan and implement the actions necessary to restore the natural resources and their services⁷ that were injured by the DDTs and PCBs.

EPA and DTSC are using their recovery funds to address the contaminated sediments offshore and for institutional controls. In reviewing part of this ongoing effort, the Commission previously concurred with an EPA consistency determination for a pilot capping program intended to help determine whether the site could be remediated by capping (CD-52-00). A

⁵ Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund," Title 42 United States Code [U.S.C.] Section 9601 et seq.)

⁶ The swing money goes to the Natural Resource Trustees in the event that EPA makes a decision not to select any in situ response or remedial action for the Palos Verdes Shelf.

⁷ The "services" that a natural resource provides are the functions performed by a natural resource for the benefit of another natural resource and/or the public.

summary of the results of the pilot project is attached as Exhibit 3. EPA is continuing to study alternatives for the overall remediation and has not yet arrived at a final remediation plan.

III. Federal Agency's Consistency Determination. The National Oceanic and Atmospheric Administration has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

IV. Applicable Legal Authorities.

Section 307 of the Coastal Zone Management Act (CZMA) provides in part:

(c)(1)(A) Each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.

A. Conditional Concurrences.

15 CFR § 930.4 provides, in part, that:

(a) Federal agencies, ... agencies should cooperate with State agencies to develop conditions that, if agreed to during the State agency's consistency review period and included in a Federal agency's final decision under Subpart C ... would allow the State agency to concur with the federal action. If instead a State agency issues a conditional concurrence:

(1) The State agency shall include in its concurrence letter the conditions which must be satisfied, an explanation of why the conditions are necessary to ensure consistency with specific enforceable policies of the management program, and an identification of the specific enforceable policies. The State agency's concurrence letter shall also inform the parties that if the requirements of paragraphs (a)(1) through (3) of the section are not met, then all parties shall treat the State agency's conditional concurrence letter as an objection pursuant to the applicable Subpart...

(2) The Federal agency (for Subpart C) ... shall modify the applicable plan [or] project proposal, ... pursuant to the State agency's conditions. The Federal agency ... shall immediately notify the State agency if the State agency's conditions are not acceptable; and ...

(b) If the requirements of paragraphs (a)(1) through (3) of this section are not met, then all parties shall treat the State agency's conditional concurrence as an objection pursuant to the applicable Subpart.

15 CFR § 930.34 (d) and (e) elaborate, providing that:

(d) ... At the end of the ... [statutory time] period the Federal agency shall not proceed with the activity over a State agency's objection unless: (1) the Federal agency has

concluded that under the “consistent to the maximum extent practicable” standard described in section 930.32 consistency with the enforceable policies of the management program is prohibited by existing law applicable to the Federal agency and the Federal agency has clearly described, in writing, to the State agency the legal impediments to full consistency (See §§930.32(a) and 930.39(a)), or (2) the Federal agency has concluded that its proposed action is fully consistent with the enforceable policies of the management program, though the State agency objects.

(e) If a Federal agency decides to proceed with a Federal agency activity that is objected to by a State agency, or to follow an alternative suggested by the State agency, the Federal agency shall notify the State agency of its decision to proceed before the project commences.

B. Consistent to the Maximum Extent Practicable.

Section 930.32 of the federal consistency regulations provides, in part, that:

(a)(1) The term “consistent to the maximum extent practicable” means fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.

The Commission recognizes that the standard for approval of Federal projects is that the activity must be “consistent to the maximum extent practicable” (Coastal Zone Management Act Section 307(c)(1)). This standard allows a federal activity that is not fully consistent with the CCMP to proceed, if compliance with the CCMP is “*prohibited [by] existing Federal law applicable to the Federal agency's operations*” (15 C.F.R. § 930.32). NOAA did not provide any documentation to support a maximum extent practicable argument in its consistency determination. Therefore, there is no basis to conclude that existing law applicable to the Federal agency prohibits full consistency.

V. Staff Recommendation. The staff recommends that the Commission adopt the following motion in support of its decision:

Motion:

I move that the Commission adopt the following findings in support of its conditional concurrence in NOAA’s consistency determination CD-104-05.

Staff Recommendation:

The staff recommends a **YES** vote on this motion. Pursuant to section 30315.1 of the Coastal Act, adoption of findings requires a majority vote of the members of the prevailing side present at the December 14, 2005, hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission’s action on the consistency determination are eligible to vote. A majority vote by the

prevailing Commissioners listed on page 1 of this report will result in adoption of the findings.

Resolution To Conditionally Concur With Consistency Determination:

The Commission hereby conditionally concurs with the consistency determination by NOAA on the grounds that, if modified as described in the Commission's conditional concurrence, the project would be consistent with the enforceable policies of the CCMP, provided that NOAA satisfies the condition specified below pursuant to 15 CFR §930.4.

Condition:

1. **Continued Funding for Catalina Island Bald Eagle Nest Manipulation.** NOAA and the Trustees shall reinstate funding in the amount of \$250,000/year, for 10 years, to continue the human intervention efforts it has previously funded to assure bald eagle nesting and chick hatching on Santa Catalina Island.

VI. Findings and Declarations:

The Commission finds and declares as follows:

A. Marine Resources, Environmentally Sensitive Habitat, and Commercial and Recreational Fishing. The marine resources and environmentally sensitive habitat policies of the Coastal Act provide:

30230 Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

30240 (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

The commercial and recreational fishing policies provide:

30234 Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those

facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.

30234.5 The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

The restoration activities covered in this consistency determination are proposed primarily to restore natural resources injured through the above-referenced dumping of heavy concentrations of DDTs and PCBs into the Palos Verdes shelf. As such the primary project goals are harmonious with and help implement marine resources and sensitive habitat preservation and restoration, as well as protection of fishing efforts. Concerning marine resources, NOAA states:

The MPA fund augmentation action is designed to improve fish habitat function in the SCB by providing additional support to preexisting MPAs. These MPAs are currently being managed by state and federal agencies, academic institutions, and non-governmental organizations. The Trustees propose to restore fish and their habitats by contributing to four ongoing projects/programs: subtidal fish monitoring, enforcement of MPA regulations by the NPS and CDFG, CDFG remotely operated vehicle surveys, and a GDFG groundfish tagging project.

While this project provides specific benefits to fish habitats adjacent to the Northern Channel Islands, the project will also provide longer-term benefits for fish habitats and fishing throughout California by helping to generate sound empirical underpinnings for the site and design of future networks of MPAs.

Accordingly, while the FRP will have impacts on the marine environment, those impacts will be beneficial ones, designed to maintain, enhance, and restore marine resources consistent with Section 30230. In addition, it is worth noting that the programs that this action would support are largely administered by the State of California; therefore, the Coastal Commission would retain authority over many aspects of project implementation.

Concerning sensitive land resources, NOAA states:

The Trustees propose to mechanically remove exotic vegetation from nesting areas on Santa Barbara Island and Scorpion Rock and to revegetate the area with native plants. The removal of invasive, exotic vegetation and planting of native plants would be done during the non-breeding season in both locations to avoid impacts to nesting birds. There is no foreseeable plan to use herbicides at Scorpion Rock; however, there is a remote chance that herbicides would be necessary for plant removal on Santa Barbara Island. Should the use of herbicides become necessary, the Trustees would advise and coordinate with the Commission further before use.

There may be short-term impacts to soil from trampling in both locations, resulting in increased soil erosion. However, these impacts are expected to be minimal, and restoration of native plants could have long-term benefits to the physical environment of Santa Barbara Island and Scorpion Rock by stabilizing the soil and decreasing erosion. In addition, the Trustees may implement the use of matting or some similar method to stabilize the soil on Scorpion Rock in certain areas where erosion would normally prevent native plants from being established. Such measures will also limit soil erosion after the removal of invasive plants.

In summary, the FRP is consistent with the land resources provisions of the California Coastal Resources Planning and Management Policies in that any short-term impacts would be incurred to ensure that “environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values” (Section 30240(a)).

At the November 2005 Commission meeting, several questions were raised that had not been addressed in the initial staff recommendation for this consistency determination. This revised report provides additional information and analysis of these questions, which were raised by several Commissioners and in DEIS comment letters (including those from EPA and the Catalina Island Conservancy). The questions include:

1. Will a 3-5 year NOAA cessation of funding human intervention efforts involving manipulating bald eagle eggs on Santa Catalina Island result in threats to bald eagle populations on the island (such as by disrupting pair bonds and leading to eagles leaving the island)?
2. If bald eagles leave Santa Catalina Island, would that threaten native island foxes (because golden eagles, which predate on foxes, may re-enter the island)?
3. Does NOAA intend to fund bald eagle restoration on Santa Catalina Island *only* in the event it can succeed without human intervention (which may be much longer than 3-5 years into the future)?
4. Is it appropriate for NOAA to fund restoration activities for species, amounts of funding, or locations that were not the primary basis of the damage assessment aspect of the litigation?
5. Are outreach programs including existing and proposed fish advisories to recreational and commercial fishers adequate?

Because the bald eagle questions appeared to be the main focus at the Commission’s previous hearing, the following background taken from the restoration project’s Draft EIS is provided:

B.2.2 Ecological Role of Bald Eagles on the Channel Islands

Bald eagles historically played an important role in the ecology of the Channel Islands by serving as both a top carnivore and a scavenger. Bald eagles prey primarily on fish taken live from the ocean; however, they also feed on seabirds and the carcasses of animals that wash up on shore.

No other species plays the same ecological role as the bald eagle. In the absence of bald eagles on the Northern Channel Islands, golden eagles (not native to the Northern Channel Islands) have become established. Nesting adult bald eagles defend territories and would likely have excluded golden eagles from establishing on the islands (USFWS 2004). The golden eagle, a terrestrial predator, has had tremendous negative impacts on native island foxes, a species that does not have evolutionary adaptations to avoid predation (Coonan 2001, Roemer 1999).

B.2.3 Santa Catalina Island Bald Eagle Program

In 1980, the USFWS and the Institute for Wildlife Studies, with the cooperation of the California Department of Fish and Game and Santa Catalina Island Conservancy, initiated a program to reintroduce bald eagles to Santa Catalina Island. Between 1980 and 1986, 33 eagles from wild nests were raised on three different artificial nest or hacking platforms on Santa Catalina Island (Garcelon 1988). The birds were released once they were able to fly (at around 12 weeks of age). Some of these birds matured and formed breeding pairs on the island. In 1987, the first bald eagle eggs were laid but soon broke. Subsequent contaminant analysis of egg remains revealed DDE levels sufficient to cause complete reproductive failure (Garcelon et al. 1989). During 1991–1993, the Institute for Wildlife Studies studied food habits of the released eagles and documented high levels of DDE in the tissues of certain prey items commonly consumed by these eagles (Garcelon 1997, Garcelon et al. 1997a, 1997b).

Since 1989, the reintroduced population has been maintained through manipulations of eggs and chicks at each nest site and through hacking of additional birds. From 1980 to 2004, a total of 21 birds have been hacked onto Santa Catalina Island (Sharpe 2004). During that same period, 47 chicks and 3 eggs (of which 2 hatched) have been fostered into nests on the island (Sharpe 2004). Adult bald eagles successfully reared 40 of these 49 chicks. Because of the high DDE concentrations in the eggs, this active program of manipulation and augmentation is necessary to maintain the Santa Catalina Island bald eagle population at this time.

In the egg manipulation process, structurally deficient eggs laid by the birds affected by DDE are replaced with artificial eggs. The adult eagles continue to incubate the artificial eggs, while the real eggs are removed and artificially incubated at the Avian Conservation Center (ACC) at the San Francisco Zoo. Chicks that hatch from these removed eggs, or those produced by captive adults at the ACC or by wild birds, are then fostered back into the nests. From 1980 to 2004, a total of 80 eggs were removed from nests on Santa Catalina Island, 14 of which hatched (Sharpe 2004). In 2005, the eggs will be artificially incubated in a facility on Santa Catalina Island rather than at the ACC.

Contaminant Levels in Bald Eagle Eggs

Bald eagle eggs collected from Santa Catalina Island that failed to hatch have been monitored for DDE and PCB levels from 1989–2004 ([DEIS] Figures B-1 and B-2). Eagle eggs collected from the Pinnacle Rock and West End nests continue to show the highest DDE concentrations among the five different territories on the island. Unlike the

other territories on the island, these nests have been occupied by the original female of that territory throughout the study period. Because these nests have been occupied by the same female over a period of 13 to 14 years, continuous, long-term information on DDE concentrations in the eggs can be used to measure changes in contamination over time.

The concentrations of DDE in eggs from all five territories, and PCBs in eggs from three territories exceed thresholds ($<3.6 \mu\text{g/g}$ ⁸ and $<3 \mu\text{g/g}$, respectively) associated with reduced productivity (<1.0 fledgling/nest). In addition, no significant change (e.g., no reduction) in the DDE levels has occurred in these territories over time. For example the DDE concentrations in eggs show no temporal change over the past 4 years (i.e., 2001-2004, regression analysis, $p>0.05$) with most nests showing no trend ($p>0.2$). The concentration of DDE in one nest (Seal Rocks) did show an indication of a trend that could be considered borderline ($p=0.054$). The lack of statistical significance in the short term may reflect the limited number of observations for each nest ($df_{\text{residuals}} = 2$). However, regressions on data from two nests monitored since 1989 (Pinnacle Rock and West End) show no significant long-term change in DDE levels as well ($p > 0.4$, $df_{\text{residuals}} > 10$).

A change in the female of a territory can affect the contaminant levels in eggs (e.g., the Seal Rocks and Twin Rocks territories, Figures B-1 and B-2). This effect may result from female prey preference, foraging style, and age. Although concentrations in recent eggs from the Seal Rocks territory are significantly lower than in eggs from 1990 and 1992 (when the same nest was occupied by a different pair of eagles), concentrations continue to exceed the adverse effect threshold for DDE ($3.6 \mu\text{g/g}$). The presence of a new female in the Twin Rocks Territory since 1998 has resulted in egg concentrations that still exceed the effect threshold for DDE. Despite the lower DDE levels in these eggs, the detrimental effects of eggshell thinning continue today as evidenced by a broken egg found in the Twin Rocks nest in 2003.

The Two Harbors territory was established in 2003 by two 5-year-old birds, but concentrations in the single sample from 2003 already exceeded the threshold concentration for DDE and PCBs necessary for healthy eagle reproduction (Figures B-1 and B-2).

Given that DDE and PCB levels in eggs are not declining, and currently exceed thresholds associated with reduced productivity (<1.0 fledgling/nest), it is unlikely that eagles would be able to be self-sustaining on Santa Catalina Island in the foreseeable future.

Limited Hatching Success Despite Artificial Incubation

The first bald eagle nesting attempts failed on Santa Catalina Island due to egg breakage in the nest. To remove the risk of adults crushing the eggs during incubation and to reduce environmental factors such as water loss, bald eagle eggs have been

⁸ $\mu\text{g/g}$ = micrograms/gram = parts per million

collected since 1989 and placed in an artificial incubation facility. Between 1989 and 2004, 80 eggs have been collected and transported primarily to the San Francisco Zoo. Without such intervention, successful reproduction is highly unlikely as documented by the continued breaking of eggs that are left in the nests. For example, in 2000 an egg broke in each of the three active nests (Pinnacle Rock, West End, and Twin Rocks), and in 2003 an egg broke in the Twin Rocks territory. Despite the efforts to hatch these eggs in a controlled environment, only 14 of the 80 eggs (18 percent) have hatched to date. Low hatching success may be the result of embryo mortality often attributed to PCBs and/or eggshell thinning generally associated with DDT and its breakdown products (DDE and DDD). The low hatching rate confirms the continued effect of DDTs and PCBs despite measures to reduce the effects of eggshell thinning by placing the eggs in an optimal, controlled environment. However, despite the limited hatching success of these eggs even with artificial incubation under optimal conditions, such efforts are necessary to maintain the population on Santa Catalina Island.

Conclusion

The available egg data and limited hatching success even with artificial incubation indicate that overall concentrations of DDE and total PCBs in failed-to-hatch eggs from all territories continue to exceed thresholds for adverse effects (reduced nest success). Based on the current levels of DDE and PCBs in eggs and the lack of any significant trends in reduction of DDE levels in eggs, Santa Catalina Island bald eagles are not likely to reach a state of self-sustainability in the foreseeable future.

Costs of the Santa Catalina Program

From 2002–2005, the average annual cost of supporting the Santa Catalina Island bald eagle program (including monitoring, retrieval of eggs from nests, artificial incubation of eggs, failed to-hatch egg contaminant analysis, fostering healthy chicks into nests, and agency support) was approximately \$270,000. In recent years, the Trustees have assumed full funding of the Santa Catalina Island program to ensure that the option of maintaining a population of bald eagles on Santa Catalina Island could receive consideration within this Restoration Plan.

If NOAA temporarily ceases funding human intervention of bald eagle eggs and chicks at Santa Catalina Island, the Institute for Wildlife Studies (IWS) may independently fund and carry out the activity, albeit at a reduced funding level. The effects of this reduced effort and funding on the program are uncertain. According to several letters and testimony presented at the Commission's December 14, 2005, hearing, there is a paucity of data showing what the consequences of discontinuing the funding would be, and the potential remains for eagles to abandon the island, with ecosystem-wide ecological effects. EPA commented in its letter that:

Since the bald eagle restoration decision has been deferred, it would be consistent for the Trustees to ensure the continued existence of the Catalina program in the interim, so that the option of maintaining a population of bald eagles on Santa Catalina Island could receive consideration in the future NEPA document

At a minimum, the Trustees should consider how a discontinued Catalina program would affect bald eagle restoration alternatives in the future NEPA analysis, especially with respect to costs. Since expenditures reserved for bald eagle restoration after the NCI study are limited to \$1.7 million of the \$25 million covered by the Final EIS, cost effectiveness is an important consideration. Rebuilding a resident nesting population of bald eagles on Catalina may be more expensive than the cost of maintaining it until the results of the NCI study are known.

The Institute for Wildlife Study noted in its comments that:

Because other bald eagle breeding studies generally do not have pairs that are marked, there is a paucity of data on the breakup of existing pairs. However, from an evolutionary standpoint it would not make sense for eagles to remain with an unsuccessful mate for too long. What that time span is, we can't say.

The IWS has only collected about \$50,000 of private funds (out of an estimated need of \$117,000) it needs to adequately continue the project for the upcoming year (with several months left to collect the additional funding it needs); certainty of funds for future years remains even more uncertain. The IWS states (Exhibit 13):

Because of the funding for the Santa Catalina Island work, we currently are seeking alternative funding sources to continue our bald eagle restoration on Santa Catalina Island. We have cut our budget to bare bones (~\$117,000/yr) and have raised \$50,000 towards the 2006 budgeted through private fund-raising as of the end of November. We hope that the Trustees will consider renewing funding for the Santa Catalina Island bald eagle restoration program in several years when we know the outcome of the Northern Channel Islands work. In the interim, we will do our best to attempt to raise the funds necessary to keep the eagle project functioning at least at minimum levels and hopefully not lose existing eagle pairs.

If the IWS is unable to continue the program, the available evidence remains inconclusive as to whether a short term (e.g., a few years) cessation of human intervention will not result in breaking up of pair bonds and/or eagles leaving the island. The following chart prepared by the Institute for Wildlife Studies shows that in the past, when hatching has not been successful, eagle pairs have generally returned to nest in the subsequent year:

Summary of nesting success and failure for Bald Eagles on Santa Catalina Island, California.

Year	West End	Pinnacle Rock	Seal Rocks	Twin Rocks	Two Harbors
1988	N/A	N/A	Failed	No eggs laid	N/A
1989	N/A	N/A	N/A	Successful	N/A

Year	West End	Pinnacle Rock	Seal Rocks	Twin Rocks	Two Harbors
1991	Successful	Successful	N/A	N/A	N/A
1992	Successful	Successful	Successful	N/A	N/A
1993	Successful	Failed	N/A	N/A	N/A
1994	Successful	Failed	N/A	N/A	N/A
1995	Failed	Successful	N/A	N/A	N/A
1996	Successful	Failed (chick injured/removed)	N/A	Incubation, no eggs found (new Male)	N/A
1997	No eggs laid	Successful	N/A	Failed (abandoned)	N/A
1998	Successful	Successful	N/A	Failed (new Female , killed chick)	N/A
1999	Successful	Successful	Failed (new pair , nest blew out of tree)	Failed (chick disappeared)	N/A
2000	Successful	Successful	No breeding	Successful	N/A
2001	Successful	Successful	Successful	Successful	N/A
2002	Successful	Successful	Successful	Successful	N/A
2003	Successful	Failed (chick injured after 2 wks, removed)	Successful	Failed (abandoned near fostering)	Successful
2004	Successful	Successful	Successful	Successful	Successful
2005	Successful	Successful	Successful	Successful	Successful

(Source – Institute for Wildlife Studies, 11/05)

Assuming bald eagles do remain on the island, golden eagles (which threaten native fox populations) will not return, and NOAA has provided evidence that they would not return in any event due to unsuitable prey species on the island for their food supply.

However, if it turns out NOAA’s conclusion is not borne out, and given the risks involved if eagles do abandon the island, in context with the relatively small effort (given the overall funding package) needed to continue the funding in the short term while long term decisions are being considered, the risks involved in discontinuing the funding outweigh the benefits of retaining this funding at the expense of several of the other proposed restoration activities less related to bald eagle protection.

In addition, NOAA states:

Even without continued Trustee funding for the current Santa Catalina Island Bald Eagle Program, it is highly likely that bald eagles will remain on Santa Catalina Island for several years despite their inability to hatch offspring naturally. Bald eagles in the wild typically live for 25 to 30 years, and Santa Catalina Island currently supports 15 to 20 birds of a wide range of ages. Currently, five active bald eagle nesting territories exist on the island, and the Institute for Wildlife Studies reports that two birds are currently establishing a new territory near Avalon. Even assuming the Santa Catalina Island bald eagles fail to hatch new chicks in the coming years, bald eagle experts do not expect that they will immediately break their pair bonds and abandon their Santa Catalina Island territories. Rather, it is likely that bald eagles will remain on Santa Catalina Island, with their numbers diminishing gradually over a period of as many as 10 years or longer as some of the birds die and are not replaced by others and as certain bald eagle pairs break their pair bonds and leave after several years of failing to produce chicks.

Thus, the Trustees anticipate that bald eagles will still inhabit several of the Channel Islands, including Santa Catalina Island, when the results of the NCI Bald Eagle Feasibility Study are known (in or around 2008). If the results of the NCI Bald Eagle Feasibility Study indicate that bald eagles throughout the Channel Islands still experience reproductive impairment due to the persistence of DDTs and PCBs in their diets, the Trustees would explore various options for further bald eagle restoration on one or more of the Channel Islands, including Santa Catalina Island. Some options may not be as costly as the current egg manipulation and chick fostering work being conducted on Santa Catalina Island. For example, the Trustees could fund a monitoring and hacking program to maintain a non-breeding bald eagle presence on the Channel Islands (and thus maintain their human use and ecological services) for as long as funds remain available or until contaminant levels decline to a level that would support naturally reproducing eagles.

However, if it turns out NOAA's conclusion is not borne out, and given the risks involved if eagles do abandon the island, in context with the relatively small effort (given the overall funding package) needed to continue the funding in the short term while long term decisions are being considered, the risks involved in discontinuing the funding outweigh the benefits of retaining this funding at the expense of several of the other proposed restoration activities less related to bald eagle protection.

Concerning the second question above, in response to EPA's request that it analyze golden eagle population and interactions with native island foxes, NOAA states:

The Trustees have carefully considered this issue and determined that, based on several factors, it is unlikely that golden eagles will establish residency on Santa Catalina Island even though they are resident on the Northern Channel Islands. An important factor in this determination is that Santa Catalina Island likely does not have a sufficient terrestrial vertebrate prey base adequate to sustain golden eagles and to support golden eagle breeding on the island. The presence of feral pigs is one the

primary reasons golden eagles were able to establish themselves on Santa Cruz Island. Efforts initiated in the 1990s eliminated several introduced terrestrial mammals (i.e., goats and pigs) from Santa Catalina Island that could have served as prey for golden eagles. Without a similar prey base, it is unlikely that Santa Catalina Island could support resident golden eagles.

A second factor making it unlikely that golden eagles would establish themselves on Santa Catalina Island is that, unlike on the Northern Channel Islands, there is no nearby mainland source for golden eagles. Golden eagles are considered an occasional visitor to Santa Catalina Island and have never been documented to breed on the island (Collins, pers. comm. 2005). This was true even when bald eagles were absent from the island (and feral pigs were present). Given the extensive development of Los Angeles County, it is unlikely that golden eagles will disperse out to Santa Catalina Island from the nearby mainland. A more likely scenario would be that golden eagles would disperse to Santa Catalina Island from the Northern Channel Islands. However, an extensive program has been in place since 1999 on the Northern Channel Islands to remove golden eagles. Through this effort, a total of 41 golden eagles have been relocated and approximately 5 to 7 golden eagles are estimated to remain on the islands (Sharpe, pers. comm., 2005). Efforts are ongoing to relocate the remaining golden eagles. With the substantial reduction in golden eagles, it is unlikely that the Northern Channel Islands would serve as a source of golden eagles to Santa Catalina Island.

The National Park Service is also currently eradicating feral pigs on Santa Cruz Island. Although this effort may take several years to complete, this non-native prey source will no longer be available to golden eagles. Without an adequate food base, golden eagles will likely resume their historical status on the Channel Islands as an occasional visitor.

The Trustees do not anticipate that bald eagles will disappear from Santa Catalina Island before the completion of the NCI Bald Eagle Feasibility Study. At that time, the Trustees will consider any new information regarding the status of golden eagles and bald eagles on the Channel Islands and will re-examine any potential impacts to the Santa Catalina Island fox. However, for the purposes of this interim decision to suspend funding of the Santa Catalina Island Bald Eagle Program until the results of the NCI Bald Eagle Feasibility Study are known, the Trustees have determined that this action will not likely adversely affect the Santa Catalina Island fox. This determination has been reviewed by the U.S. Fish and Wildlife Service and has received its concurrence ...

Concerning the third question above, EPA (as well as several other commenters) expressed concerns over language in the Draft EIS that indicated that NOAA might discontinue all human intervention on bald eagle nesting if it could not be sustained naturally. In response to these concerns, NOAA modified the project to retract that inference, stating:

The Trustees will defer making longer-term decisions on bald eagle restoration until the results of the NCI Bald Eagle Feasibility Study are known (in or around 2008). Also, the Trustees will discontinue funding for the Santa Catalina Island Bald Eagle Program during the interim period until the results of the NCI Bald Eagle Feasibility Study are known. When these study results are known the Trustees will re-evaluate all potential options for bald eagle restoration, including measures that may be taken even if bald eagles are not able to reproduce on their own anywhere in the Channel Islands. ... This action conserves limited restoration funds until sufficient information is available to evaluate the ability of the different Channel Island environments to support bald eagles. [Emphasis added]

In the draft Restoration Plan and programmatic EIS/EIR, the Trustees had proposed that the restoration of bald eagles proceed only if it was ultimately found that they are able to reproduce on their own in the Northern Channel Islands. If the results of the NCI Bald Eagle Feasibility Study indicated that there were no territories in the Channel Islands where bald eagles could reproduce unaided, the preferred course of action proposed in the draft Restoration Plan called for bald eagle restoration efforts to cease, and the remaining funds to be either set aside or used for seabird restoration.

The Trustees received diverse and opposing public comments on the advisability of bald eagle restoration given the continued observation of contaminant effects on Santa Catalina Island. Predominantly, however, public comments expressed the desire to maintain the presence of bald eagles on the Channel Islands. After considering public comments, along with the evaluation criteria for this plan (particularly the preferences that actions have long-term benefits and minimal ongoing operation and maintenance requirements), the Trustees modified the preferred action for bald eagles to provide for a re-examination of all options once the results of the NCI Bald Eagle Feasibility Study are known, rather than predetermining subsequent actions. The re-examination will be conducted with opportunity for public review and comment in a subsequent document.

Concerning the fourth question above (i.e., nexus), the Consent Decree Settlement Agreement provides that:

The Trustees will use all damages to (1) reimburse past and future Damage Assessment Costs, and (2) restore, replace, or acquire the equivalent of the injured natural resources and/or the service provided by such resources. The Trustees will use the damages for restoration of injured natural resources, including bald eagles, peregrine falcons and other marine birds, fish and the habitats upon which they depend, as well as providing for implementation of restoration projects intended to compensate the public for lose use of natural resources. The Trustees will undertake a restoration planning process to determine which restoration projects will most effectively restore the injured resources as well as compensate for lost use of those resources. The details for specific projects will be contained in a draft restoration plan. A final restoration plan will be prepared and implemented by the Trustees after providing public notice, opportunity for public input and consideration of public comments.

In addition, in response to EPA's request for more clarity in the criteria for how the trustees were determining which restoration activities to fund, NOAA states:

The preference to use restoration funds for actions that are sustainable in nature is an outgrowth of two of the MSRP evaluation criteria. The 'Resource Benefits' criterion includes consideration of the duration of the benefits and gives preference to actions having greater duration. The 'Feasibility' criterion includes consideration of the degree of ongoing operation and maintenance needed to ensure that the action continues to produce the intended results and gives preference to actions requiring less or no long-term operation and maintenance.

The potential for additional injury is a relevant consideration for the Restoration Plan. This factor is more fully described in Section 11.82(d) as, 'Potential for additional injury resulting from the proposed action, including long-term and indirect impacts to the injured resources or other resources.' This factor was incorporated into the Trustees' fifth criterion, 'Environmental Acceptability,' in which consideration was given to the potential beneficial and adverse environmental effects of the restoration actions.

Table 9-2 [Exhibit 8, page 5] illustrates how this and other Section 11.82(d) factors were incorporated into the MSRP evaluation criteria."

Exhibit 8, pages 5-10 (attached), elaborates in extensive detail the criteria and decision-making process NOAA and the Trustees have followed, and how they arrived at the current proposal. Exhibits 10-11 show the funding allocations to the different efforts. The Trustees determined that among the criteria considered, "... the characteristics most important at the screening stage were the link between a potential restoration action and the injuries of the case (i.e., the nexus), feasibility, and potential benefits." The following discussion explains the determinations about the nexus to damages established in the case:

Criterion 1: Nexus

Criterion 1 concerns the relationship between a potential action and the natural resource injuries and lost services of the Montrose case. The strength of a potential action's connection to the injuries of the Montrose case was evaluated by considering both the nature of the proposed action (i.e., whether it addresses injured resources or services that were lost) and the location of the proposed action.

To evaluate the nature of the proposed action, the Trustees evaluated the degree to which the fundamental objective of a potential action focuses on restoring one or more of the natural resources and services identified for restoration in the final Montrose case consent decree, which states: "The Trustees will use the damages for restoration of injured natural resources, including bald eagles, peregrine falcons, and other marine birds, fish and the habitats upon which they depend, as well as providing for implementation of restoration projects intended to compensate the public for lost use of natural resources" (United States v. Montrose, No. CV 90-3122-R [C.D. Cal 2001]).

The Trustees also considered the location of a potential action. Locations that provide benefits in proximity to where specific natural resource injuries and service losses are occurring or have occurred (i.e., in the Southern California Bight [SCB]) were given highest consideration. This consideration did not always equate to actions proposed at the immediate sites of injury, as contamination is still at issue, but after considering the limitations of ongoing contamination, greater value was placed on projects that are as close as feasible to sites of the original injury/lost services.

For the nexus criterion, the seabird category presented a special situation. A large number of potential actions benefit one or more species of seabirds, and specific evidence of injuries from DDTs and PCBs varies from species to species. For this reason, the Trustees adopted an evaluation approach for the seabird category that considers evidence of injury for each seabird species in addition to the nature of the proposed action and its location.

After consideration of the foraging ecology of seabirds in the SCB, the Trustee Council concluded that it was likely that most, if not all, species of seabirds using the SCB had been exposed to DDTs or PCBs. Across different species, this exposure either caused documented evidence of adverse injury (specifically, eggshell thinning), documented elevated DDT levels in eggs, or the injury was unknown. Severe eggshell thinning is documented when mean eggshell thickness is determined to be at least 15 percent reduced when compared to the thickness observed in pre-1947 museum specimens.

The seabird species in the SCB for which there was evidence of severe eggshell thinning (as defined above) are the double-crested cormorant, Brandt's cormorant, the California brown pelican, and the western gull (Kiff 1994). A study in 1992 demonstrated that even though seabird populations in the SCB were not experiencing continued severe eggshell thinning (with the exception of the double-crested cormorant), individual eggs of the ash storm-petrel, western gull, and Cassin's auklet were measuring greater than 15 percent thinner than pre-1947 values (Kiff 1994). The 1992 study also found highly significant differences in mean eggshell thickness ($p < 0.01$) compared to pre-1947 values for the double-crested cormorant, the ash storm-petrel, Cassin's auklet, and the western gull, as well as significant differences ($p < 0.05$) in mean eggshell thickness for the pelagic cormorant.

The Trustees also considered information regarding elevated DDT levels in seabird eggs in the SCB compared to eggs of the same or closely related species at distant colonies along the Pacific coast. Fry (1994) reported that total DDT egg residues were significantly elevated in the SCB colonies compared to other colonies for the following species: the western gull, the double-crested cormorant, the pigeon guillemot, and the ash storm-petrel. Xantus's murrelets were also documented as having elevated residues of DDTs in their eggs on Santa Barbara Island (Fry 1994).

The Trustees assigned nexus ratings to different seabird species of the SCB after considering the above information regarding eggshell thinning and DDT levels in

seabird eggs. A high nexus rating was given for those projects targeting species with severe or significant eggshell thinning and/or for which DDT egg residues were significantly elevated in the SCB colonies. Consequently, the following seabirds received a high nexus and are considered priority species for restoration: the double-crested cormorant, Brandt's cormorant, the California brown pelican, the western gull, the ashy-storm petrel, Cassin's auklet, the pelagic cormorant, and the pigeon guillemot. The Trustees assigned a moderate rating to projects aimed at a species whose eggs did not show severe or significant eggshell thinning but had elevated levels of DDTs in eggs (e.g., Xantus's murrelet). The Trustees gave the lowest ratings to projects directed at species that were likely exposed but for which no known evidence existed of severe or significant eggshell thinning or elevated levels of DDTs.

In addition to eggshell thinning and DDT data, the Trustees also considered the conservation status of a seabird species when determining priority seabirds for restoration. For example, the California brown pelican and Xantus's murrelet are considered priority species for restoration based on their endangered and threatened status, respectively.

The remaining criteria (feasibility, resource benefits, ecosystem benefits, environmental acceptability, and cost) are discussed further in Exhibit 8.

Concerning the fifth question above (i.e., fish advisories/outreach), the following NOAA discussion examines the roles that EPA (and through EPA, the California Department of Fish and Game) and NOAA (through this MSRP Program) have undertaken in implementing remediation and public education efforts:

Please note that the Montrose-related missions of the Environmental Protection Agency (EPA) and the Montrose Settlements Restoration Program (MSRP) Trustees, while often complementary, are independent of each other. The EPA is responsible for remediation: reducing the risk to humans and the environment from contaminants. The Trustees, on the other hand, are charged with natural resource restoration: restoring, replacing, or acquiring the equivalent of natural resources injured and services lost as a result of past releases. In addition, while the EPA and the Trustees may at times coordinate efforts to maximize benefits, neither has any formal control over the other's programs.

The consistency determination currently before the California Coastal Commission is submitted by the Trustees solely regarding Trustee programs.

The first enclosure outlines which Montrose-related programs are "owned" by EPA and which are owned by the Trustees. The second enclosure, a program flowchart [Exhibit 12], graphically depicts the relationships between EPA and Trustee activities and indicates how certain programs feed into one another. The third enclosure is an outline of Trustee outreach efforts, which includes programs where the Trustees will augment EPA activities as well as Trustee programs independent of the EPA.

EPA Programs

The goal of EPA's response and remediation work is to reduce the risk to humans and the environment from the offshore contaminated sediments.

- **Remedial Investigation/Feasibility Study (RI/FS)**

Examine the extent and risk of contamination and evaluate potential long-term cleanup alternatives. This effort includes a 2001 pilot capping project to evaluate cap placement methods and construction related impacts. In 2002, EPA concluded that cap construction would be technically feasible, and are currently evaluating whether a full-scale capping project should be implemented. EPA is also conducting several data gap studies to better understand the sediment fate and transport and the stability of the cap. Once these data gap studies are completed, EPA will go forward with the (RI/FS) to evaluate cleanup options to address long term risks associated with the site.

- **Institutional Controls**

A non-engineered approach to reducing human risk through public education and outreach, fish monitoring, and enforcement of the existing fish regulations.

- **Public Education and Outreach**

Increase awareness and understanding of the existing fish consumption advisories and fishing restrictions. EPA's education and outreach is mainly conducted through the Fish Contamination and Education Collaborative (FCEC), a partnership between federal and state government agencies, local health departments, community-based organizations, and other local institutions. FCEC programs include:

- **General Outreach**

Build local capacity to reduce exposures to contaminants in fish caught off the Los Angeles and Orange County Coasts by training community-based educators in affected communities, and partnering with local health departments. This program aims to reach a broad audience, particularly women of childbearing age, with in-language risk reduction messages.

- **Pier Outreach**

Educate pier and shoreline anglers in Los Angeles County about the risks of consuming DDT- and PCB- contaminated white croaker and other locally caught fish.

- **Market Outreach**

Conduct outreach to reduce the number of contaminated white croaker in local markets in Los Angeles and Orange Counties.

- **Media Outreach**

Employ language-specific radio and newspaper spots to educate the public about chemicals in fish caught off the LA and Orange County Coasts.

- **Monitoring**
Evaluate and track contaminant concentrations in fish (primarily white croaker) caught at or near the Palos Verdes Shelf, as well as those sold in retail fish markets and served in restaurants.
 - **“Fish-in-Ocean” Monitoring¹⁰**
Collect contaminant data for white croaker from areas adjacent to the existing commercial closure area to determine whether the closure area should be enlarged or revised.
 - **Marketplace Monitoring¹¹**
Collect and analyze samples of locally caught fish from markets and restaurants within Los Angeles and Orange counties to evaluate the effectiveness of fishing restrictions and enforcement actions in eliminating the presence of contaminated fish in the public market and restaurants.
 - **Technical Review Board**
Support EPA monitoring efforts
- **Enforcement**
Prevent commercial catch and sale of contaminated fish at and from the Palos Verdes Shelf, using existing staff from the CDFG Marine Enforcement Group.
 - **Commercial Catch Ban (with CDFG)**
Work with CDFG to ensure that white croaker are not caught at or near the Palos Verdes Shelf in violation of the State of California regulations that prohibit such commercial catch of white croaker.
 - **Sport Fishing Restrictions (with CDFG)**
Work with CDFG to ensure that white croaker are not caught at or near the Palos Verdes Shelf in violation of the State of California regulations that establish a daily white croaker catch and possession limit for sport fishers.

MSRP Programs

MSRP Trustees include the National Oceanic and Atmospheric Administration (NOAA), U.S. Fish and Wildlife Service (USFWS), National Park Service (NPS),

¹⁰ EPA’s “fish-in-ocean” and marketplace monitoring are being conducted in close coordination with the MSRP fish contamination study. Together, these studies will provide a comprehensive look at fish contamination in the Southern California Bight.

¹¹ [same footnote as fn. 10]

California Department of Fish and Game (CDFG), California Department of Parks and Recreation (CDPR), and the California State Lands Commission (CSLC). The goal of the MSRP is to restore, replace or acquire the equivalent of natural resources injured and services lost as a result of past releases of DDTs and PCBs into the Southern California marine environment.

- **Damage Assessment Studies**
Examine potential injuries to natural resources and services. These studies were conducted before litigation, during the damage assessment phase.
- **Data Gap Studies**
Gather information to enhance restoration planning.
 - **Northern Channel Islands (NCI) Bald Eagle Feasibility Study**
Determine the feasibility of reestablishing bald eagles on the Northern Channel Islands.
 - **Peregrine Falcon Survey**
Complement prior peregrine falcon surveys of the Northern Channel Islands with a survey to determine whether the birds are nesting and reproducing on the Southern Channel Islands as well.
 - **Angler Survey (with EPA)**
Gather information on fishing and fish consumption practices and preferences from people who fish in Southern California Coastal waters.
 - **Fish Contamination Study¹² (with EPA)**
Comprehensive fish collection and analysis study to examine existing contaminant concentrations in fish off the Southern California Coast. Includes analysis of commonly caught sport fish for DDTs, PCBs, mercury, and other contaminants.
- **Restoration**
Restore, replace or acquire the equivalent of natural resources injured and services lost as a result of past releases and ongoing contamination. Affected resources and services include:
 - *Fish and Fishing*
 - *Bald Eagles*
 - *Peregrine Falcons*
 - *Seabirds*

NOAA concludes, for the subject proposal:

¹² See footnote 10, previous page.

Provide Public Information to Restore Lost Fishing Opportunities

The goal of this action is to build on the public outreach and education work initiated by the U.S. Environmental Protection Agency (EPA) through the establishment of the Fish Contamination Education Collaborative (FCEC). FCEC is a federal, state, and local partnership project aimed at addressing public exposure to contaminated fish in the Southern California coastal area. The FCEC focuses on educating the public about the human health hazards associated with DDT and PCB contamination in fish. Thus, the FCEC program provides information to help people reduce their exposure to DDTs and PCBs from the fish they eat.

The Natural Resource Trustees for the Montrose case (Trustees) will expand this ongoing effort to increase fishing services by providing information to anglers that allows them to make sound decisions about where and for which species to fish. The Trustees will also provide outreach materials that establish the link between the ecology and life history of a particular species and its tendency to bioaccumulate contaminants. This information would enable people to make knowledgeable choices about where, when, and for which species to fish to minimize their exposure to contaminants.

Current MSRP outreach efforts related to this project include:

- ***Coordination with EPA's Institutional Controls Program.*** MSRP is an active partner in EPA's Fish Contamination and Education Collaborative (FCEC). In addition to providing materials for FCEC outreach programs, MSRP also acts in an advisory role for technical issues related to fish.
- ***"Fishing Resources in Southern California,"*** an MSRP fish identification card [Exhibit 9]. The card presents 20 full-color illustrations of the most commonly caught subsistence and sport fish from Southern California, accompanied by common names as used in California sport fishing regulations and advisories. The reverse side of the card offers information on where to find information on local fishing advisories, as well as cooking tips to help reduce contaminant intake. The MSRP fish identification card is used by EPA as a part of its Pier Outreach program. Over 25,000 copies of the card have been produced and distributed via the Pier Outreach program, and at local outreach and education events.
- ***"There's Something Fishy Going On,"*** a pilot educational comic book. The story follows two children as they learn about the history of fish contamination in the Palos Verdes Shelf area. The comic book is a joint effort between MSRP and the Cabrillo Marine Aquarium, and was distributed to local educators to elicit feedback for a final version, which will be produced in 2006.

Future MSRP outreach efforts that will be funded by this project may include:

- **Continued coordination with EPA’s Institutional Controls Program.** MSRP will continue to play an active role in FCEC. As draft advisories become available, MSRP will work with EPA to expand the outreach message to include safer fishing alternatives, and to integrate this message into existing and new programs. Through its extensive network of community-based organizations, FCEC provides an unparalleled opportunity to provide this message in-language to the affected communities both through one-on-one interactions and media ads and/or PSAs.
- **Pier and angler outreach** both in coordination with current FCEC efforts, and through additional venues not currently available through FCEC. MSRP will work with FCEC to help expand their current pier outreach program to include outreach to other, non-pier based recreational anglers. MSRP may also identify additional avenues of angler outreach (ex: CDFG Youth Angler Program) not affiliated with FCEC. This aspect may also include the production of additional outreach materials as needed.
- **Continued production of “Fishing Resources in Southern California”** for use in pier outreach and other outreach and education events.
- **Full-scale production of “There’s Something Fishy Going On,”** including the addition of an insert describing local advisories once information from the MSRP/EPA fish contamination study becomes available. MSRP also plans on developing an in-school educational module using the comic book as a basis. The educational module will conform to the State of California education standards and will be offered to schools serving affected populations.
- **Production of educational exhibits and/or kiosks** related to fish contamination. As a program representing natural resource agencies, MSRP also plans to work with organizations with exhibit space at key locations along the Southern California Coast (ex: LA Conservation Corps’ SeaLab in Redondo Beach, Cabrillo Marine Aquarium in San Pedro, etc.) to develop outreach materials, exhibits, etc. that provide a link between fish as living marine resources and the risks and benefits they provide to their consumers.
- **Small grants program.** MSRP is currently exploring the possibility of funding a small grants program that would award several small grants totaling \$50,000 each year. The grant program would target local groups interested in pursuing fish contamination education and outreach in ways not currently covered by current or planned FCEC or MSRP efforts.

Commission Conclusion. At the November Commission meeting concerns were raised over several restoration project elements that were not specifically analyzed in detail in NOAA’s consistency determination (although they were analyzed in the restoration project’s Draft EIS and response to comments). Specific areas of concern included whether NOAA’s proposed temporary cessation of funding human intervention efforts involving manipulating bald eagle

eggs on Santa Catalina Island could threaten bald eagle populations on the island (such as by disrupting pair bonds and leading to eagles leaving the island), and whether existing and proposed fish advisories to recreational and commercial fishers were adequate.

As discussed above, if NOAA temporarily ceases funding human intervention of bald eagle eggs and chicks at Santa Catalina Island, the Institute for Wildlife Studies (IWS) may independently raise some portion (but not all) of the funds previously provided by NOAA and carry out the activity, and the effects of such funding reduction or discontinuous is uncertain. The IWS has only collected about \$50,000 of private funds (out of an estimated need of \$117,000) it needs to adequately continue the project for the upcoming year (with several months left to collect the additional funding it needs), and availability of funds for future years remains even more uncertain. (Exhibit 13). If IWS reduces or does not continue the program, the available evidence remains inconclusive as to whether a short term (e.g., a few years) cessation of human intervention will not result in breaking up of pair bonds and/or eagles leaving the island. More importantly, if it turns out NOAA's assumptions are not borne out, and given the risks involved if eagles do abandon the island, in context with the relatively small effort (given the overall funding package) needed to continue the funding in the short term while long term decisions are being considered, the risks involved in discontinuing the funding are outweighed by the benefits of retaining this funding. . If bald eagles do not remain on the island, the ecological consequences could be ecosystem-wide.

On the issue of whether NOAA might abandon human intervention in the event *neither* northern nor southern Channel Islands bald eagle breeding can succeed without human intervention, NOAA has modified its initial proposal to assure that:

... the Trustees will defer making longer-term decisions on bald eagle restoration until the results of the NCI Bald Eagle Feasibility Study are known (in or around 2008). ... When these study results are known the Trustees will re-evaluate all potential options for bald eagle restoration, including measures that may be taken even if bald eagles are not able to reproduce on their own anywhere in the Channel Islands.

However, in the interim, in order to address the uncertainty over whether program funding cessation could result in adverse effects to bald eagles at Catalina Island, and to the ecosystem (given the biological significance of the eagle as a top predator), the Commission believes the following condition is necessary to assure continued funding for the Catalina Island efforts:

1. Continued Funding for Catalina Island Bald Eagle Nest Manipulation. NOAA and the Trustees shall reinstate funding in the amount of \$250,000/year, for 10 years, to continue the human intervention efforts it has previously funded to assure bald eagle nesting and chick hatching on Santa Catalina Island.

Without this continued funding, the restoration program would be inconsistent with the enforceable policies of the California Coastal Management Program, specifically the provisions of Section 30230 of the Coastal Act, which requires that: (1) marine resources shall be maintained, enhanced, and where feasible, restored; (2) special protection shall be given to areas and species of special biological or economic significance; and (3) uses of the marine

environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Also relevant to the Commission's condition is the enforceable policy contained in Section 30240(a) of the Coastal Act, which requires that environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values.

The Commission further based its decision on: (1) information in NOAA's and the Trustees' Environmental Impact Statement for the restoration program, which discussed the vital significance of the bald eagle as a top predator in the entire food chain of the region, thus emphasizing this species' importance, effects to which could have adverse ecosystem-wide implications; (2) information in NOAA's and the Trustees' Environmental Impact Statement that linked the six above-proposed activities with other restoration activities, including NOAA's proposed temporary (several year) discontinuance of funding for the Catalina Island human intervention efforts (pending a longer-term feasibility study to determine the best long term approach for the species); and, finally, (3) acknowledgement that documented effects on bald eagles were a major element in the damage assessment for the Montrose lawsuit.

The Commission determined that, only as conditioned, could the restoration program be found consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program.

On the issue of the adequacy of fish advisories/education/outreach, Exhibit 9 shows fliers and advisories in a number of languages. As discussed on page 28, these advisories are widely distributed (including by the Cabrillo Marine Aquarium, Heal the Bay, local health departments, and at various local and regional events). It also bears noting that the project is intended to supplement existing activities *primarily* being conducted by the EPA and the California Department of Fish and Game. What NOAA is proposing will only enhance existing efforts and cannot be found to result in *adverse* effects to commercial and recreational fishing and/or human health.

In conclusion, the Commission finds that, only as conditioned, would the proposed activities protect and restore, where feasible, marine resources and environmentally sensitive habitat. As conditioned, the activities would provide net habitat and fisheries benefits, include monitoring efforts, and provide for future coordination with the Commission where appropriate. Future coordination would include any significant project modifications, additional elements not yet proposed and described (e.g., long-term bald eagle restoration and artificial reef proposals), and any use of herbicides in NOAA's proposed invasive species eradication efforts. With this commitment for future coordination, combined with the condition to assure continued funding for the bald eagle activities on Catalina Island, the Commission concludes that the project is consistent with the applicable marine resource and environmentally sensitive habitat protection policies (Sections 30230 and 30240), and with the commercial and recreational fishing policies (Sections 30234 and 30234.5) of the Coastal Act.

B. Public Access and Recreation. Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreation opportunities, acknowledging that such access needs to be managed in a manner taking into account natural resource protection needs. Section 30213 provides for the protection of lower cost visitor and recreational facilities. Section 30214 provides that the public access policies of the Coastal Act need to be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case, including environmental sensitivity.

NOAA states:

The proposed actions include no new restrictions on public access.

The Scorpion and Orizaba Rocks seabird restoration project does, however, contain disturbance reduction provisions (additional off-limits postings and enforcement). The waters around Scorpion and Orizaba Rocks are popular destinations for sea kayakers. Although these islets are closed to the public, kayakers occasionally land on the island. This human disturbance results in the flushing of roosting seabirds (e.g., brown pelicans and cormorants) and harassment of nesting birds. Trespassers have also been documented opening the nest boxes on Scorpion Rock. Such disturbance can lead to abandonment of nests and decreased productivity. The FRP disturbance reduction provisions are designed to prevent such harm by bolstering enforcement of preexisting off-limits policies.

Since the proposed actions impose no new access restrictions, these actions have no projected public access impacts.

...

The proposal to provide public information regarding fishing would involve various types of outreach to recreational anglers. Specifically, the Trustees would provide information to the public that would allow them to make knowledgeable choices about where to fish and what to fish for. This information differs from, and will complement, the critical information generated by EPA regarding fish species and locations to avoid.

This action would likely impact recreational use of the coastal zone; however, the impact would be more informed and healthful choices by the public regarding their use of the coastal waters for fishing. This impact would be beneficial and is therefore consistent with the Coastal Resources Planning and Management Policies.

As discussed above, the project includes enforcement of an existing access and recreation restriction, around Scorpion and Orizaba Rocks (located on the northeast side of Santa Cruz Island)(Exhibits 4-5). Current National Park Service restrictions prohibit landing on all offshore rocks and islets around the island. NOAA notes that while these islets are officially

closed to the public, kayakers occasionally land on the island, causing flushing of roosting seabirds, harassment of nesting birds, and occasional opening the nest boxes on Scorpion Rock, leading to abandonment of nests and decreased productivity. The proposed access restrictions would not be new. In addition, under the Coastal Act (Sections 30210 and, more specifically, 30214), management of access in a manner reflecting, among other things, protection of fragile coastal resources and the need to protect natural resource areas from overuse, is warranted and in fact required under the Coastal Act. The Commission finds that the project poses no additional burdens on public access, and that the proposed enforcement of existing restrictions is necessary to protect sensitive habitat and is consistent with the public access and recreation policies (Sections 30210-30214) of the Coastal Act.

VII. SUBSTANTIVE FILE DOCUMENTS:

1. Consistency Determination CD-52-00, Environmental Protection Agency, Palos Verdes Shelf Capping Demonstration Project.
2. Consent Decree with Montrose Chemical Corporation of California et al., *United States and State of California v. Montrose Chemical Corporation*, No. CV 90-3122-R (C.D. Western Div. Calif., March 15, 2001).
3. MSRP Draft Restoration Plan and Programmatic Environmental Impact Statement (EIS) and Environmental Impact Report (EIR), April 8, 2005.