

This section of the Montrose Settlements Restoration Program (MSRP) Final Restoration Plan and Programmatic Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) provides a record of the public comments received on the draft Restoration Plan and programmatic EIS/EIR and the responses to these comments prepared by the Natural Resource Trustees for the Montrose case (Trustees). The draft document underwent a 45-day public comment period extending from Friday, April 8, to Monday, May 23, 2005. During this time, the Trustees received many written comments, and accepted additional input at various public meetings held throughout the affected area.

The Trustees received many comments that spanned all aspects of the draft Restoration Plan and programmatic EIS/EIR. These public comments served to enhance the final version of the plan. A full copy of the written comments as well as the transcripts of the public meetings and the transcripts of telephone comments have been included in the MSRP Administrative Record and are available online at [www.montroserestoration.gov](http://www.montroserestoration.gov).

The Trustees' responses to public comments have been organized according to common themes, beginning with responses to general comments about restoration planning and the document itself and followed by the responses to the comments regarding the specific natural resource categories. The responses are presented below.

## 9.1 GENERAL COMMENTS

### 9.1.1 Identity of the Montrose Settlements Restoration Program

*Comment: Many reviewers mistook the Montrose Settlements Restoration Program for the Montrose Chemical Corporation.*

*Source(s): Multiple public reviewers*

The Montrose Settlements Restoration Program is managed by a Natural Resource Trustee Council that consists of three federal and three state agencies (the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, the National Park Service, the California Department of Fish and Game, the California State Lands Commission, and the California State Department of Parks and Recreation). These government agencies are responsible for using the funds recovered from Montrose Chemical Corporation (Montrose) and other liable parties in judicial settlements to restore the natural resources injured by the DDTs and PCBs released to the Southern California Bight by Montrose and the other defendants. The Trustee Council (referred to as the Trustees throughout this document) created the MSRP as a temporary inter-agency unit to develop a plan for the restoration of the injured resources and to administer the settlement funds for that purpose.

The MSRP acts under the direction of the Trustees. The six government agencies that constitute the Trustees are not in any way affiliated with the Montrose Chemical Corporation or any of the other defendants in the litigation. Neither the Trustees nor the MSRP are responsible for the releases of the contaminants into the ocean or for the impacts to natural resources that resulted from those releases.

## 9.1.2 Noise Impacts

*Comment: Abalone Cove Beach Park, the Portuguese Bend Co-op Preschool, and the Long Point Resort Hotel (under construction) should be listed as sensitive receptors in Coastal Reach 3.*

*Source(s): City of Rancho Palos Verdes*

The Trustees have added these locations to the list of sensitive noise receptors included in Table 3.9-1.

## 9.1.3 Use of Restoration Funds for Site Cleanup

*Comment: Restoration funds should be used to address the DDTs and PCBs that remain in the sediments off the coast of California. Several ideas on specific methods for cleaning up sediments were proposed.*

*Source(s): Multiple public reviewers*

In general, the law (i.e., the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]) assigns the responsibility for cleaning up hazardous substances to the U.S. Environmental Protection Agency (EPA) and state cleanup agencies. The settlements for the Montrose case specifically provide funds to the EPA and under certain circumstances to the California Department of Toxic Substances Control (DTSC) for this purpose. Thus, the EPA will conduct the cleanup actions (if any) to address the continued DDT and PCB contamination of sediments and will do so using funds that the settlements provide for this purpose.

The \$140.2 million recovered in settlements from the defendants in the Montrose case was divided in the following manner:

- \$66.25 million was awarded to EPA for response (cleanup) actions, which may include reducing human health risks via public education and outreach (“institutional controls”) and addressing the contaminated sediments offshore (“in-situ response”) (see Section 4.2.2 for a more detailed description of these programs). An additional \$10 million (“swing money”) was set aside in a special account that EPA may use to conduct any in situ response actions. These monies may become available to the Trustees in certain limited circumstances (described in Section 9.1.6).
- \$63.95 million was awarded to the Trustees to reimburse past costs and to restore injured natural resources and lost services.

*Comment: Restoration funds should be used to address onshore contaminated areas, such as the Consolidated Slip*

*Source(s): J. Marquez*

Although large amounts of DDTs and PCBs made their way into the marine environment through the wastewater outfalls at White Point, off the Palos Verdes Shelf, contaminants also entered the environment through runoff from the Montrose plant itself. That runoff flowed through storm drains into the Dominguez Channel and down to the area known as the Consolidated Slip. However, the legal settlements reached in 2001 covered only the offshore

areas of contamination and prohibit the use of settlement funds for response actions in the onshore areas such as the Consolidated Slip.

#### 9.1.4 Restoration Timing/Coordination with EPA

*Comment: The Trustees should wait to implement many of the restoration actions until the completion of EPA's site remediation work.*

*Source(s): Coastal Resources Associates, Inc.; T. Coops; J. Morton*

Although any successful site remediation by the EPA is likely to enhance the benefits provided by the Trustees' restoration actions, none of the restoration ideas that passed the Tier 1 and Tier 2 evaluations are dependent on the results of the EPA's site remediation work. Given the time it is likely to take to complete the complex and difficult remediation work, the Trustees believe it is important not to delay implementation of those restoration actions that, if taken sooner, can restore injured resources and/or provide the benefits of those resources to the public.

#### 9.1.5 Overall Allocation of Restoration Funds

*Comment: Several reviewers questioned the proposed distribution of funding across the different restoration categories and actions. Some expressed the opinion that insufficient funds were allocated for specific injured resources such as bald eagles or fish habitat. Others stated that too much funding was provided for categories such as seabirds and fishing. Still others stated the opinion that the distribution of funding should take into account the geographic distribution of the contamination.*

*Source(s): Multiple public reviewers*

The consent decrees for the Montrose case provided funding for restoration, but did not specify how the restoration funds should be allocated among the different resource categories. After considering the ongoing uncertainties identified in Section 4, the Trustees proposed a phased approach to implementation that provides for adaptive management (i.e., adjusting management actions as new information is gained through the planning and implementing of the actions).

Several other considerations also went into the Trustees' decision to allocate the first phase of restoration funding approximately equally between fishing and fish habitat restoration actions and seabird restoration actions. These considerations included (1) the estimated costs for the actions that are relatively specific in scope at this stage; (2) the scalability of other actions that are still conceptual (e.g., actions such as reef construction and wetlands restoration for which the size, number, and locations may be tailored to available budgets); and (3) the practical limitations on managing implementation of multiple restoration actions simultaneously in the same region. In light of these considerations, the Trustees concluded that the proposed mix of actions reflected in the alternatives represents a reasonable distribution of restoration funds for a first phase of implementation and that the phasing provides for future adjustment and adaptation as more information is gained.

The injuries from DDTs and PCBs were not limited to the localized sediment deposits. Contaminants were distributed throughout the Southern California Bight by fish and marine mammals carrying them in their bodies. Therefore, when considering geographic distribution, the

Trustees did not factor in proximity of restoration actions to the contaminated sediments, but rather gave consideration to the locations where natural resource injuries and lost services occurred, and the proximity of the different restoration actions to those sites of injuries and lost services (among other factors). See also Section 9.1.11.

#### 9.1.6 Swing Money

*Comment: Certain statements in the draft Restoration Plan have incorrectly characterized the way that the final consent decree provides for \$10 million in contingent funding, or “swing money,” to be disbursed depending on the EPA’s decision on in situ remediation of sediments.*

*Source(s): EPA*

Paragraph 11.C of the final Montrose Consent Decree provides as follows:

In the event EPA makes a response action selection determination to not select any “in-situ” response action... then all funds retained in the Court Registry Account... shall be paid from the Court Registry Account to the Trustees.

The Trustees have reworded those sections of the text to reflect the above-quoted text of the final consent decree.

#### 9.1.7 Past Natural Resource Damage Assessment and Litigation Costs

*Comment: The Trustees should provide a description of how the \$35 million in past damage assessment costs were spent, and to what purpose. The Trustees should not use settlement funds for reimbursement of past damage assessment costs.*

*Source(s): Heal the Bay; Santa Monica Baykeeper; Pacific Seabird Group*

The final consent decree states that settlement funds are to be used 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 services provided by such resources.”

The Trustees’ natural resource damage assessment included numerous studies to:

- Determine injuries across a wide range of resources
- Quantify those injuries
- Establish a pathway from the Montrose facility to those resources and injuries
- Determine the value of natural resource injuries and services lost
- Characterize the affected area
- Evaluate potential response actions to address the remaining contamination (before the EPA joined the case in the mid 1990s)

Table 9-1 provides a summary of the approximate costs that the Trustees have incurred throughout the Montrose damage assessment and litigation, including the costs of specific studies and general management.

**Table 9-1  
Summary of Damage Assessment Costs for the Montrose Case**

<b>Study or Action</b>	<b>Description</b>	<b>Approximate Cost</b>
Sediment	To determine if the sea floor sediments were contaminated at a level that causes injury to biological resources.	\$750,000
Fish Reproduction	To determine if a significant difference in reproductive success can be measured between control fish and fish from the Southern California Bight.	\$2,100,000
Birds	To determine whether injuries to bird species in the Southern California Bight had been caused by and were continuing because of exposure to DDTs and/or PCBs.	\$2,000,000
Marine Mammals	To determine if exposure to DDTs and PCBs was causing injury to marine mammals in the Southern California Bight.	\$1,750,000
Pathways	To determine the pathway between the contaminant releases and the injured resources to evaluate whether the releases actually caused the natural resource injuries found.	\$750,000
Direct Use Value Studies	To collect general information about the way people use the natural resources of the Southern California Bight and specific data on the uses of the resources that were available.	\$500,000
Contingent Valuation Study	To determine the interim lost value associated with the injured resources.	\$7,600,000
Palos Verdes Shelf Characterization	To collect comprehensive information about the distribution of the effluent-affected sediment layer.	\$3,500,000
Palos Verdes Shelf Natural Recovery Estimation	To estimate the time needed for natural recovery of the Palos Verdes Shelf if no restoration or associated activities were undertaken.	\$3,500,000
Physical Remediation	To evaluate the technical feasibility for a range of sediment restoration approaches to accelerate the biological recovery of the system by removing or isolating the DDT- and/or PCB-laden sediments.	\$900,000
Biological Restoration	To develop key components of a Restoration and Compensation Determination Plan for use in natural resource restoration planning	\$300,000
General Case Management	General management and coordination functions associated with the damage assessment	\$2,100,000
Peer Review	To conduct independent peer review for each part of the damage assessment	\$600,000
Quality Assurance	To ensure that Principal Investigators specified and achieved the quality of data needed to conduct damage assessment studies.	\$1,200,000
Other agency costs	Costs necessary for planning, management, and implementation of damage assessment and litigation.	\$8,000,000
<b>Approximate Total</b>		<b>\$35,000,000</b>

Generally, the costs for conducting many damage assessments do not come from Congressional appropriations. Given the magnitude, geographic extent, and persistence of the contaminants of this case and the duration and contentiousness of the legal case itself, the \$35 million expended for the damage assessment and litigation in the Montrose case was deemed reasonably necessary. This amount falls within the range of the costs incurred for other large and complex damage

assessments, including the Cantara Loop train derailment (\$15–17 million) and the *EXXON Valdez* oil spill (\$108.3 million). The Trustees decided to cap reimbursement of their past costs at \$35 million, even though documented costs came to approximately \$36.3 million.

### 9.1.8 Outreach and Education

*Comment: Outreach and education should be evaluated as a separate resource category for funding consideration and as a component of specific restoration actions.*

*Source(s): Palos Verdes Peninsula Land Conservancy; multiple public reviewers*

Planning and implementing natural resource restoration in accordance with applicable federal and state laws requires public participation; therefore, it is appropriate that a portion of funding be applied to public outreach and education activities aimed at fulfilling this requirement. However, the Trustees did not believe that restoration ideas eliciting funds for general outreach and education should be included with specific proposals to fund “on-the-ground” restoration work, such as seabird social attraction or the construction of artificial reefs. The one exception was a targeted campaign aimed at providing greater information to anglers about fish contamination (“provide public information to restore lost fishing services”; see Appendix A2). The outreach and education project described in Appendix A2 is a means of restoring lost fishing opportunities (a per se injury under CERCLA) to anglers and thus is, in effect, on-the-ground restoration.

Other outreach and education ideas submitted outlined general programs to promote environmental stewardship across various audiences. The Trustees recognize the importance of outreach and education as a means of engaging the public in restoration in general and in the Montrose case in particular. After reviewing the outreach and education proposals from Tier 1, the Trustees have chosen to incorporate some aspects of those ideas into the “provide public information to restore lost fishing services” action (see Appendix A2 for details).

Most of the restoration actions that MSRP will undertake will include an outreach and education element within the scope of implementation. An MSRP outreach and education coordinator will oversee these aspects of the actions as well as general outreach and education on the Montrose case as a whole.

*Comment: Money should be spent to educate the public about the human health consequences of DDTs and PCBs.*

*Source(s): T. Laura; M. Padian*

Alternative 2 (preferred) in the Restoration Plan includes a component for providing public information regarding DDT and PCB contamination in fish caught in the affected area. The Trustees will continue to work closely with the EPA’s institutional controls program, including the Fish Contamination and Education Collaborative (FCEC), whose goal is to provide information to help educate the public about the health risks of consuming fish contaminated with DDTs and PCBs. Together with FCEC, MSRP designs and produces outreach materials, which FCEC then disseminates to a host of community-based organizations and health educators in the Southern California region. In addition, several county, state, and federal public health and environmental agencies have broader responsibilities to protect and inform the public on environmental health issues, including the general risks of exposures to DDTs and PCBs.

**9.1.9 Research and Monitoring**

*Comment: Some reviewers submitted proposals for additional research and/or indicated that further monitoring was needed before implementing certain restoration actions, and requested that their suggested research/monitoring components be included in the Restoration Plan.*

*Source(s): Multiple public reviewers*

The Trustees' goal is to maximize the amount of actual natural resource restoration that can be achieved through the Montrose settlements. In pursuing this goal, the Trustees recognize that a certain amount of additional study and project monitoring is required to ensure that the actions being taken are appropriate and effective. As is the case for general outreach and education proposals, the ideas for additional study and monitoring that were submitted to the Trustees were not evaluated alongside actual restoration actions, but have been retained for further consideration as restoration proceeds and potential needs for further information arise. Most of the specific research proposals that have been suggested are addressed in the responses to seabird restoration comments (see Section 9.5).

Regarding project monitoring, each restoration action that the Trustees implement will include a monitoring component, which will serve to enhance adaptive management of those actions (i.e., will identify successes/failures and adapt techniques accordingly) and measure the effectiveness of the restoration efforts.

**9.1.10 Methodology for Analyzing Alternatives**

*Comment: The U.S. Department of the Interior's Title 43 Code of Federal Regulations (CFR) Part 11.82(d) "factors to consider when selecting the [restoration] alternative to pursue" should be more fully integrated into the project analysis methodology or more information should be provided on how the criteria used in the Restoration Plan were selected.*

*Source(s): EPA*

The ten selection factors that the EPA identifies and how they are integrated into the six evaluation criteria of the Restoration Plan are described in Section 5.1.1. To address the EPA's comment, the Trustees have added language in the Restoration Plan to further clarify how the Title 43 CFR Part 11.82(d) "factors to consider" were integrated and adapted into the MSRP evaluation criteria (see Section 5.1.1). These evaluation criteria were developed with public input at workshops held in 2002 and 2003. All relevant considerations were incorporated into the evaluation criteria that the Trustees used for the Montrose case. In some cases the Part 11.82(d) factors were combined or reorganized into the six criteria to facilitate and improve the clarity of analysis. For instance, the Trustees incorporated two factors listed separately in Part 11.82(d), "relationship of the expected costs to the expected benefits" and "cost-effectiveness," into three evaluation criteria: "Resource Benefits," "Ecosystem Benefits," and "Cost."

*Comment: The key assumptions of the Restoration Plan, such as the preference to use restoration funds for actions that are sustainable in nature, should be identified.*

*Source(s): EPA*

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.

*Comment: The Restoration Plan should include an explanation as to why the potential for additional injury was not deemed significant for inclusion in the evaluation criteria.*

*Source(s): EPA*

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 illustrates how this and other Section 11.82(d) factors were incorporated into the MSRP evaluation criteria.

**Table 9-2  
Relationship between MSRP Evaluation Criteria and the Evaluation Factors Listed in the Federal Natural Resource Damage Assessment Regulations (43 CFR Part 11.82[d])**

<b>MSRP Evaluation Criteria</b>	<b>Factors Listed under 43 CFR Part 11.82(d) Incorporated into Corresponding MSRP Criteria</b>
<b>Nexus</b> <ul style="list-style-type: none"> <li>• Nature of action</li> <li>• Location</li> </ul>	Not listed
<b>Feasibility</b> <ul style="list-style-type: none"> <li>• Technical feasibility</li> <li>• Potential institutional or administrative barriers to an action’s implementation</li> <li>• Degree of ongoing operation and maintenance needed to ensure intended results</li> </ul>	<ul style="list-style-type: none"> <li>• Technical feasibility</li> <li>• Consistency with relevant state, federal or tribal policies and laws</li> </ul>
<b>Resource Benefits</b> <ul style="list-style-type: none"> <li>• Degree to which injured natural resource values and services are improved by the action</li> <li>• Degree to which benefits are measurable</li> <li>• Duration of benefits</li> <li>• Conservation status of resource(s)</li> </ul>	<ul style="list-style-type: none"> <li>• Relationship of the expected costs of the proposed actions to the expected benefits from the restoration</li> <li>• Results of any planned or actual response actions</li> <li>• Natural recovery period</li> <li>• Ability of the resources to recover with or without</li> </ul>

**Table 9-2**  
**Relationship between MSRP Evaluation Criteria and the Evaluation Factors Listed in the Federal Natural Resource Damage Assessment Regulations (43 CFR Part 11.82[d])**

MSRP Evaluation Criteria	Factors Listed under 43 CFR Part 11.82(d) Incorporated into Corresponding MSRP Criteria
	alternative actions
<b>Ecosystem Benefits</b> <ul style="list-style-type: none"> <li>• Degree to which action leads to sustainable improvements in broader ecological functions</li> </ul>	<ul style="list-style-type: none"> <li>• Relationship of the expected costs of the proposed actions to the expected benefits from the restoration</li> <li>• Results of any planned or actual response actions</li> <li>• Natural recovery period</li> <li>• Ability of the resources to recover with or without alternative actions</li> </ul>
<b>Environmental Acceptability</b> <ul style="list-style-type: none"> <li>• Potential beneficial and adverse environmental effects</li> </ul>	<ul style="list-style-type: none"> <li>• Potential human health and safety effects</li> <li>• Potential for additional injury resulting from the proposed action, including long-term and indirect impacts</li> </ul>
<b>Cost</b> <ul style="list-style-type: none"> <li>• Includes possible partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Relationship of the expected costs of the proposed actions to the expected benefits from the restoration</li> <li>• Cost-effectiveness</li> </ul>

#### 9.1.11 Tier 1 and Tier 2 Action Criteria: Nexus (Physical Proximity)

*Comment: It is unclear how proximity to the site of impact was employed as a criterion for evaluating actions. A higher priority for funding should go to actions nearest the contaminated sediment.*

*Source(s): Palos Verdes Peninsula Land Conservancy; Catalina Island Conservancy; multiple public reviewers*

In reviewing action ideas in the Tier 1 and Tier 2 evaluations, the Trustees considered the location of potential actions in relation to the location of injuries and lost services. Actions providing benefits in locations where resource injuries and service losses have occurred or are occurring were given the highest consideration. Although the contaminants at issue in this case entered the marine environment at the outfalls near White Point, impacts to injured natural resources and losses to the services those resources provide were documented across the Southern California Bight (see relevant responses for specific resource injuries in Sections 9.2 through 9.5, particularly Section 9.2.3).

Under the MSRP criteria, the preferred locations for restoration actions do not always equate to the geographic locations where the greatest sediment contamination still exists or locations where injuries to natural resources are ongoing, because the continuing contaminant exposures may prevent attainment of the intended restoration objectives. However, after considering the limitations resulting from ongoing contamination, the Trustees placed greater value on actions that are as close as feasible to the sites of the original injury and lost services.

*Comment: Certain reviewers were concerned that a sediment “plume” of DDT extends southward near Catalina Island and questioned why no sediment samples were taken past the continental drop-off as well as why fish were not sampled around Catalina Island.*

*Source(s): Catalina Island Conservancy; J. Barelli*

Sediments containing high loads of DDTs and PCBs do not extend to Santa Catalina Island. Sediments and fish have been sampled off of Santa Catalina Island (see the short summary of fish sampling in Section 9.2.3). Although it may be tempting to conclude that Santa Catalina Island is directly in the impact zone of effluent from the Los Angeles County Sanitation Districts (LACSD) outfall pipes, several factors prevented the majority of the contaminants from reaching the island. The DDT- and PCB-contaminated effluent that passed through the wastewater outfalls located on the Palos Verdes Shelf was released into the water column and was attached to particles that were transported by the prevailing currents until they were either consumed by fish or other pelagic biota or settled to the bottom and became part of the sediments.

The concentrations of DDTs and PCBs in the wastewater effluent and, correspondingly, in the ocean water column had dropped to near zero by the 1980s (see Figure 2-2). The distribution of contamination occurring in sediments today is to a large extent a function of the direction and distance that the contaminants were transported while they were in the water column in the 1940s to the 1970s. The U.S. Geological Survey (USGS) summary of sediment data, which was based on the data collected by LACSD, shows that the concentrations of DDTs and PCBs decline rapidly in the offshore southeast direction (i.e., toward Santa Catalina Island), whereas they decline much more slowly toward the northwest, into Santa Monica Bay. The USGS data summary suggests that the major trajectory of contaminant transport was to the northwest, away from the island (Lee et al. 2002). The USGS data summary also shows that surface contamination levels were nearly at background levels only 3 to 4 miles offshore of White Point. It is therefore unlikely that significant levels of contaminants occur in the sediments adjacent to Santa Catalina Island, 17 miles away from the most contaminated sediments.

*Comment: Restoration funds are most appropriately used on and around Catalina Island, the area “hardest hit” by the contaminants of the Montrose case.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

Although the Trustees found that the bald eagles and peregrine falcons on Santa Catalina Island have been injured by the contaminants of the Montrose case, the Trustees also found injuries and losses of services caused by the Montrose contamination throughout the Southern California Bight. Bald eagles and peregrine falcons historically nested not only on Santa Catalina Island but throughout the Channel Islands and had been extirpated throughout the Channel Islands by the 1960s. Because injuries from the contaminants of the Montrose case were seen throughout the Southern California Bight, the Trustees have concluded that Santa Catalina Island is not the hardest hit location.

Although Santa Catalina Island is closer than the other Channel Islands to the primary source of the DDTs and PCBs from Montrose, studies of the fate and transport of the contamination issuing from the LACSD ocean outfalls, including studies of bottom currents and sediment transport, demonstrate a prevalent direction of physical transport of the contaminants to the north and west rather than to the south, in the direction of Santa Catalina Island (see also Section 2.2).

The biological injuries from the Montrose contaminants are largely a result of uptake, bio-magnification, and transport of the chemicals throughout the food web of the Southern California Bight. Thus, many of the injuries stemming from the DDTs and PCBs of this case occurred and continue to occur over a wide geographic range.

The consent decrees for the Montrose case did not specify that settlement monies were to be targeted at any specific location. Rather, the final consent decree stated that,

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.

To the extent that the Trustees have selected specific sites for restoration, the Trustees have selected the sites that they consider will have the greatest benefit to the injured natural resources and lost services. For example, in the case of lost fishing services, the Trustees will give priority to those mainland coastal locations that continue to be affected by fishing advisories caused by the contaminants of the Montrose case. The Trustees seek to restore bald eagles to their historical territories throughout the Channel Islands and believe that the best prospect for attaining this goal at present rests in establishing breeding bald eagles on the Northern Channel Islands (with the awareness of uncertainties that may require reconsideration of all bald eagle restoration options when the current Northern Channel Island bald eagle studies are concluded).

*Comment: The Trustees gave preference to actions in the Northern Channel Islands (most of which are under National Park Service jurisdiction) because of ownership and/or jurisdictional considerations rather than on the basis of explicit evaluation criteria.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

The overall evaluation of potential restoration actions considered feasibility, including any potential regulatory requirements or other institutional barriers to implementation. However, these factors did not ultimately determine which actions would or would not be implemented; the Trustees also considered biological reasons for pursuing restoration actions on the Northern Channel Islands. The National Park Service (NPS) is only one of the six Trustee agencies for the Montrose case; decisions regarding which actions will or will not be implemented are made unanimously by all of the Trustee agencies.

The bald eagle restoration work as outlined in this plan will focus on the Northern Channel Islands, at least until the results of the Northern Channel Island (NCI) Bald Eagle Feasibility Study are known. The Trustees believe, based on the data evaluated to date, that bald eagle reintroduction in the Northern Channel Islands has a higher likelihood of success for both technical and biological reasons. The ownership of the Northern Channel Islands is incidental to this conclusion. However, even though most of the Northern Channel Islands are under the jurisdiction of the NPS, the majority (76 percent) of Santa Cruz Island (where the NCI Bald Eagle Feasibility Study is actually being conducted) is managed by The Nature Conservancy. Further discussion of the bald eagle restoration evaluation is found in Section 9.3.

Also, many of the other fish and fish habitat, peregrine falcon, and seabird restoration actions will be implemented in areas other than the Northern Channel Islands. Reef construction, the provision of public information to restore lost fishing services, the restoration of full tidal

exchange wetlands, and two seabird actions that may be implemented in Phase 2 (depending on funding availability) will be implemented on Southern California mainland areas not managed by the NPS. In addition, peregrine falcon monitoring will address all of the Channel Islands.

9.1.12 Tier 1 and Tier 2 Action Criteria: Benefits (to the Public)

*Comment: Certain reviewers felt that the Trustees should give greater weight to human use benefits as a component of the evaluation, and cited the greater degree of human use benefits from bald eagles on Catalina Island, which is more heavily visited than other Channel Islands. Other reviewers expressed concerns that the benefits of some of the actions included in the Trustees' preferred alternative would not be realized in areas that could be appreciated by Californians.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

The human use services provided by natural resources, such as the viewing of bald eagles and the recreational and other public uses provided by fish, are important aspects to consider in evaluating the resource benefits of a restoration action. Non-use services are likewise a consideration in evaluating the benefits of actions. One example of non-use services is the value the public places on the awareness that natural resources such as bald eagles are thriving and being protected in places where they had been injured in the past, even if people do not view or otherwise use the resources. Although the "Resource Benefits" criterion in the Restoration Plan does not distinguish between public use and non-use benefits, the Trustees considered these benefits (in addition to biological and other benefits) in their evaluation of actions during the restoration planning process.

The public comments received on the draft Restoration Plan indicated that there is substantial public interest in and exceptional human use and non-use value ascribed to bald eagle restoration. The Trustees have modified the bald eagle restoration provisions in Alternative 2 (the preferred alternative) in response to these comments, reserving funds exclusively for bald eagle restoration and providing for future consideration of additional bald eagle restoration on Santa Catalina Island after the results of ongoing studies are known, as described in more detail in Section 9.3.

9.1.13 Tier 1 and Tier 2 Action Criteria: Environmental Acceptability (Cumulative Impacts)

*Comment: The cumulative impacts analysis should be expanded to include any known projects or other actions within the Southern California Bight and associated area that may adversely impact injured resources.*

*Source(s): EPA*

The cumulative impacts analysis in Section 7 has been revised and expanded to address this comment.

**9.1.14 Impact Analyses, Including Impacts to Threatened and Endangered Species**

*Comment: The Restoration Plan should include information regarding the direct and indirect impacts of the project alternatives on key endangered species, as well as an expanded impact analysis of the projects and alternatives to make more explicit the cause-and-effect relationships among affected species.*

*Source(s): EPA*

The analyses of the actions in Appendices A–D and the actions and alternatives in Sections 6 and 7 have been revised to more clearly describe the potential beneficial and adverse effects of the evaluated restoration actions in general and their effects on threatened and endangered species in particular. More detail has also been provided to explain how the MSRP evaluation criteria led to the selection of the preferred alternative.

**9.1.15 Potential Impacts to the Ventura River Watershed**

*Comment: The project site lies in the Ventura River watershed. Please provide information on how it will change the loading of pollutants into the watershed.*

*Source(s): California Regional Water Quality Control Board, Los Angeles Region*

None of the actions planned for the MSRP will occur in the Ventura River Watershed.

**9.1.16 Implementation of Actions Not Passed to the Tier 2 Evaluation**

*Comment: The current preparation of a Natural Communities Conservation Plan and the concurrent acquisition of open space may indirectly implement two ideas from Tier 1.*

*Source(s): City of Rancho Palos Verdes; Palos Verdes Peninsula Land Conservancy*

The two actions that may be indirectly implemented are (1) restore overgrazed seashore in Abalone Cove and (2) acquire and enhance peregrine falcon habitat on the Palos Verdes Peninsula. The first idea did not pass to Tier 2 evaluation in this Restoration Plan due to Trustee concerns about technical and regulatory feasibility of the idea. The second idea did not pass to Tier 2 mainly due to the successful recovery of peregrine falcons on the mainland. Although these two ideas will not be implemented as a part of this Restoration Plan, the Trustees support the implementation of these actions by other groups.

**9.1.17 General Comments on Restoration Alternatives**

*Comment: The three alternatives presented in the Restoration Plan do not seem to be representative of all of the restoration options available.*

*Source(s): FCEC*

Under the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), and the federal Natural Resource Damage Assessment (NRDA) regulations, the Trustees must consider a range of possible courses of action to undertake restoration, but are not required to consider every possible option. In this Restoration Plan, the Trustees presented a No Action Alternative (a required natural recovery alternative with minimum management actions)

and two comprehensive restoration alternatives, one of which represented the Trustees' preferred course of action.

In the preparation of the draft Restoration Plan, the Trustees noted that the last two alternatives presented in the plan were structured to facilitate review of the plan and had been assembled to illustrate the trade-offs involved in emphasizing different restoration priorities. The alternatives were in no way meant to be inclusive of all of the restoration options available. The draft Restoration Plan explained that comments could be submitted either on the alternatives as assembled in the plan, on individual actions, on the allocation of funding, or on any other aspect of the plan. The public comment period provided an opportunity for the public to react to the alternatives as presented, give feedback on whether they support the Trustees' preferred alternative as presented, suggest modifications, support a different alternative, recommend an entirely new alternative, etc.

In response to the numerous and wide range of comments received from individuals and organizations, the Trustees have retained the basic framework presented in Alternatives 2 and 3, but have modified the preferred alternative (Alternative 2) (see the Executive Summary and Section 7).

*Comment: The restoration alternatives would be better characterized as "two comprehensive restoration plan alternatives and a no action alternative," rather than the stated "three comprehensive restoration alternatives."*

*Source(s): EPA*

The Trustees agree and have incorporated this characterization throughout the document.

#### 9.1.18 Comments on Applicable Laws and Regulations

*Comment: Section 8 should be amended to include information regarding the requirements of the Federal Clean Air act and obligations for general conformity determination, as well as details on Mexican laws and regulations, including applicable environmental review requirements.*

*Source(s): EPA*

Section 8.2.1 has been modified to include the requested information regarding the federal Clean Air Act. Details on Mexican laws and regulations have not been included.

### 9.2 FISHING AND FISH HABITAT COMMENTS

#### 9.2.1 Flexibility of Funding Within the Fishing and Fish Habitat Category

*Comment: It is difficult to evaluate how funds should be allocated within the overall fishing and fish habitat category across different actions; the Trustees should keep funding flexible within this category.*

*Source(s): R. Ambrose*

The Trustees intend to incorporate some flexibility in how funds are allocated among fishing and fish habitat actions. Further, the Trustees have specifically adopted a phased approach to the

restoration program to allow for adaptive management and to give the public a chance to revisit the work as implementation progresses.

### 9.2.2 Reconsideration of Tier 1 Idea

*Comment: The Trustees should reconsider the White Croaker Commercial Market Certification Program idea previously submitted but which did not pass the Tier 1 evaluation.*

*Source(s): Heal the Bay; Santa Monica Baykeeper*

The Trustees previously evaluated the idea of creating a white croaker certification program to allow certified uncontaminated white croaker to be marketed, but the idea did not pass the Tier 1 evaluation. The objective of this proposed idea was to restore commercial fishing operations impacted by loss of demand for this species due in part to public presumptions that this species is contaminated. The primary reasons that this idea was not further evaluated were the significant start-up and long-term commitments required, such as the extensive monitoring of white croaker contamination levels, and the question of which agencies could certify “clean” white croaker and under what authority. The full Tier 1 evaluation of this idea can be found in the Record of Initial Restoration Ideas and Tier 1 Evaluation, which is available as part of the MSRP Administrative Record.

The current MSRP/EPA fish contamination survey extended the geographic range of sampling for white croaker up to Ventura, where a previously existing white croaker commercial fishery has been shut down due to loss of demand. Part of the justification for expanding sampling was to determine if Ventura-caught white croaker were in fact “clean.” The Trustees will further explore the feasibility of certifying seafood as “clean” as part of the next phase of restoration if the results from the fish contamination survey indicate that there may be some promise in this idea.

### 9.2.3 New Fishing and Fish Habitat Restoration Ideas

*Comment: Catalina Island, the island hardest hit by contaminants and most visited, should be funded for its fisheries and ecosystems consistent with similar activities on islands farther away.*

*Source(s): Catalina Island Conservancy; USC Wrigley Institute for Environmental Studies; multiple public reviewers*

The Trustees have carefully examined evidence of DDT/PCB impacts on Santa Catalina Island’s fish and fishing resources and have concluded that these impacts are not only substantially lower on that island than in ocean waters near the Southern California mainland, but also not appreciably greater than the impacts in the waters surrounding the other Channel Islands. This conclusion is supported by several lines of evidence, including data from several surveys of a variety of components of the food web. The data are summarized below.

Mussels collected off of Santa Catalina Island and other Channel Islands are orders of magnitude lower in contamination than those collected off of Palos Verdes Shelf, Santa Monica Bay, and San Pedro Bay. Also, there is no difference in contamination levels between the north and the south sides of Santa Catalina Island and between Santa Catalina Island and locations in the

Northern Channel Islands (Figure 9-1). The Channel Island area with the most highly contaminated shellfish was San Miguel Island, which is part of the Northern Channel Islands.

Human health is not at risk for those fishing near Santa Catalina Island or any of the other Channel Islands. No fish consumption advisories exist for any species of fish on any of the Channel Islands, including Santa Catalina Island. Multiple fish contaminant surveys included Santa Catalina Island and targeted a variety of fishes, and none of these surveys resulted in evidence supporting the need for fish consumption advisories. Samples from kelp bass collected off of the coast of Santa Catalina Island in the late 1980s showed DDT concentrations that ranged from 2–14 parts per billion (ppb), and PCBs were not detected in these fish. The concentrations of PCBs and DDTs found in these fish were well below the state trigger level of 100 ppb and also well below the levels that the LACSD found in the kelp bass it collected in 1983 from the Northern Channel Islands. These samples contained DDT concentrations of 17–60 ppb (average of 34.2 ppb) and PCB concentration of 3–63 ppb (average of 15.9 ppb). To provide perspective, kelp bass collected off Palos Verdes in 2004 contained DDT concentrations ranging from 20–1,020 ppb (average of 203 ppb) and PCB concentrations ranging from 20–240 ppb (average of 88 ppb), still much higher than the concentrations found in fish collected 20 years earlier off the Channel Islands.

Further, a 1998 survey throughout the Southern California Bight (referred to as the Bight '98 data) (Southern California Coastal Water Research Project 2004) collected soft-bottom-dwelling flatfishes from all around Santa Monica Bay, Palos Verdes, San Pedro Bay, and Santa Catalina Island (Figure 9-2). This survey found that the contaminant concentrations in the fish collected from the shore-based areas were orders of magnitude higher than in the fish collected off the island. If direct transport of DDTs and PCBs had occurred from the LACSD outfalls at White Point toward Santa Catalina Island, the north side of the island would be characterized by more contaminated fish than the south side. However, the Bight '98 data do not support this conclusion; on the contrary, low levels of contamination exist in fish taken from both sides of Santa Catalina Island. When considered together, these data suggest that (1) Santa Catalina Island was much less impacted than mainland areas similarly distant from the outfall pipes (e.g., central Santa Monica Bay) and (2) Santa Catalina Island was impacted by DDTs and PCBs to the same degree as the Northern Channel Islands.

In addition to the LACSD outfalls, which were the principal source of DDT and PCB contamination in the Southern California marine region, barrels of acid sludge containing DDTs were dumped into the San Pedro Basin, which is closer to Santa Catalina Island than the LACSD outfalls, up until 1961 (see page 2-3 and Figure 2-3). The dumping occurred in much deeper water (a depth of approximately 2,500 feet) than the depth of the LACSD outfalls (about 200 feet). Despite this other potential source of DDT contamination, concentrations of DDTs in fish and mussels from samples taken in the 1980s and 1990s (see Figures 9-1 and 9-2) indicate that these receptors are still significantly less contaminated than those sampled along the Southern California mainland coast.

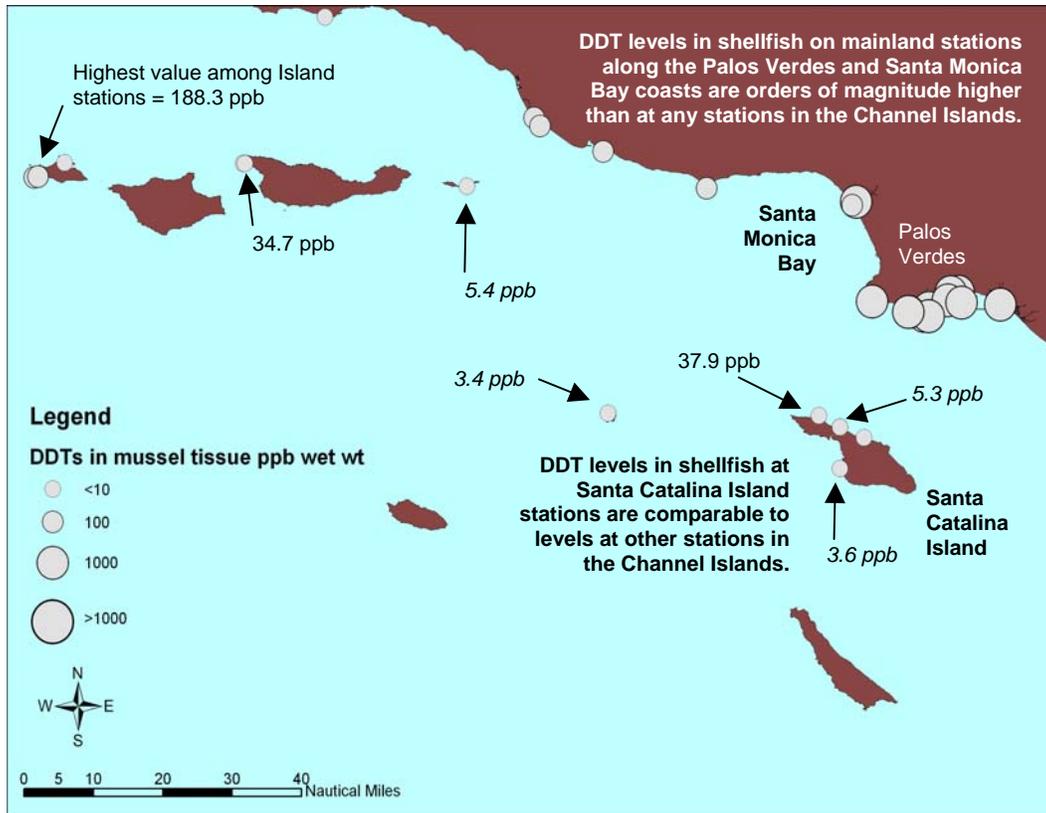
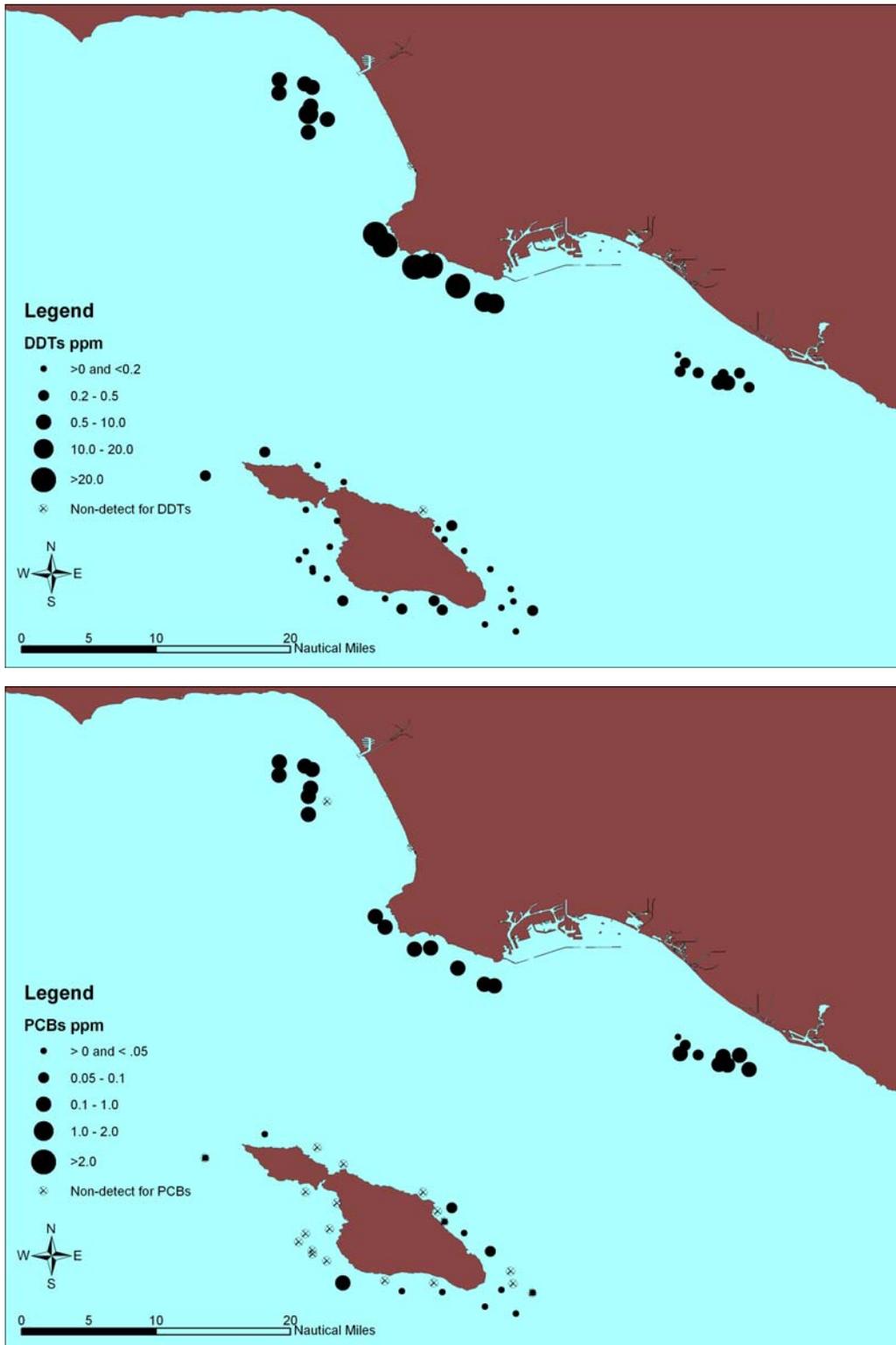


Figure 9-1. Results from the 1981 state mussel watch survey and the 1988 federal mussel watch survey, both of which examined relative contamination levels in shellfish in various locations along the Southern California coast and throughout the Channel Islands.



Source: SCCWRP 1998.

Figure 9-2. Concentrations of DDTs (top panel) and PCBs (bottom panel) in benthic soft-bottom fishes collected in Santa Monica Bay, Palos Verdes Shelf, San Pedro Bay, and Catalina Island.

Despite the fact that fish surrounding Santa Catalina Island are not highly contaminated, bald eagles on the island continue to experience reproductive impairment. In addition to eating fish, bald eagles also consume other birds and scavenge from the marine mammal carcasses that wash ashore. Observations and modeling of the dietary composition of the Santa Catalina Island bald eagles have shown that the vast majority of their exposure to DDTs and PCBs comes from the marine mammal carcasses and seabird component of their diet; the marine mammals and seabirds forage over a much broader marine region and accumulate high amounts of DDTs and PCBs in their tissues not from consumption of fish near the island, but from other more highly contaminated areas.

*Comment: The Trustees should implement projects to reduce entrainment of fish in power plant cooling systems, either by relocating intakes from sensitive areas or by alternative cooling technologies that don't require once-through cooling.*

*Source(s): Heal the Bay; Santa Monica Baykeeper*

This idea was not among those evaluated in the original evaluation process. Evaluating this idea would require an investigation of how local power plants and other major cooling water users intend to respond to the Clean Water Act Section 316(b) requirements recently released by the EPA. Any response would occur as permits come up for renewal, many of which are scheduled in the next 5 to 10 years. This idea will therefore be investigated during the first phase of restoration and considered for the second phase.

Power plants will be required to drastically reduce both entrainment and impingement to comply with the new Section 316(b) permit requirements. The Trustees would not fund projects that simply bring industrial facilities into compliance with the new Section 316(b) standards, as this is the responsibility of each permittee. However, the Trustees may examine opportunities for funding projects that significantly decrease impingement or entrainment beyond the level required by permit. This evaluation would only examine funding the portion of an action that is in excess of the cost of compliance.

*Comment: The Trustees should create a Marine Protected Area on the Palos Verdes Shelf where fish contamination levels are high, perhaps in combination with one of the reef projects. Such an MPA would have greater nexus to the case than the Channel Islands MPAs. It makes little sense to leave onshore areas near the site of contamination open to fishing when "1) there are fish consumption advisories due to cancer risks, 2) the area is closed to commercial fishing for white croaker, and 3) artificial reefs are being created to restore lost fishing services."*

*Source(s): Heal the Bay; Santa Monica Baykeeper*

Although creating a marine reserve on the Palos Verdes Shelf within the zone of highest fish contamination may be a method for protecting human health, it unfortunately does not serve the objective of restoring lost fishing services. Although a commercial catch ban is in effect for white croaker for the Palos Verdes Shelf, there is no indication that the contamination levels in other fish species warrant expanding the commercial catch ban or prohibiting fishing altogether. Many migratory, reef, and pelagic species are currently not limited by advisories even in the area of highest contamination.

Separate from the objective of restoring lost fishing services, the restoration of fish and the habitats on which they depend is another of the uses for settlement funds identified in the final consent decree. The Trustees have evaluated ways of increasing fish production in the Southern California Bight, but with a focus on increasing production in areas that are not contaminated, thereby increasing the proportion of “clean” fish in the bight. Marine Protected Areas (MPAs) have been shown to be an effective mechanism for increasing fish production within their boundaries and are a potential means for achieving the Trustees’ fish habitat restoration objective. However, a carefully planned network of MPAs is more likely to be effective at increasing the sustainability of fishing than an individual, isolated MPAs developed separately and for varying purposes. As a result, the Trustees have opted to contribute to the implementation of such a network of MPAs rather than proposing to establish independent MPAs that are not designed to complement the broader effort.

The California State Marine Life Protection Act is in the process of developing a unified and interconnected network of MPAs that will ultimately extend throughout the California coastline. Information obtained from each phase of implementation will be used to refine the design of and the justification for the MPAs established in subsequent phases. If successful, this network of MPAs will contribute to fish production in the Southern California Bight. However, the critical element for determining the location, shape, and size of an MPA, as well as justifying its implementation to the public, is sound evidence resulting from the monitoring of existing MPAs. The Trustees consider contributing critical funding to the evaluation and enforcement of the Channel Island MPAs to be both fish habitat restoration in the Channel Islands as well as a contribution to the evaluation of the effectiveness of MPAs throughout California.

*Comment: The Trustees should establish a saltwater fishery to reintroduce fresh, clean saltwater fish back into the ocean near the proposed artificial reefs.*

*Source(s): J. Marquez*

Several similar ideas for stock enhancement were put forward during the scoping process and evaluated during the Tier 1 Evaluation. These included ideas to supplement nearshore fisheries in contaminated areas with clean, hatchery-raised fish and ideas for spotted sand bass, giant sea bass, and white abalone hatchery programs. Such ideas, however, would offer limited sustainability due to their high and long-term operational and maintenance costs. Also, the effectiveness of actions using captivity-reared fish to increase the availability of popular sport fishes typically lower in contamination is uncertain for marine species. For these reasons, stock enhancement ideas were not carried forward to the Tier 2 evaluation.

#### 9.2.4 Comments on “Construct Artificial Reefs and Fishing Access Improvements”

*Comment: There is a lack of specificity pertaining to the number, size, material, design and location of proposed artificial reefs.*

*Source(s): Heal the Bay; Santa Monica Baykeeper*

The Restoration Plan contains information pertaining to the number, material, and design of reefs proposed in the reef restoration action. The document specifically states the intent to construct two to three reefs during the first phase of restoration and that the materials used would comply with the standards established by the California Department of Fish and Game Artificial Reef

Program. Numerous details are also provided regarding the design elements that would be considered when implementing specific reef projects (see Appendix A1).

Appendix A1 indicates that the sizes and locations of reef projects will be determined through an iterative process that will begin with the results of the current MSRP/EPA fish contamination survey. However, specific reef sites will likely require follow-up environmental sampling prior to implementation. Each of these reef projects will include site-specific environmental review and public comment. For purposes of this Restoration Plan, the Trustees have provided a detailed overview of the reef approach to restoration. It would not be possible to evaluate specific locations fully, even if the current sampling data were available.

*Comment: The Trustees should not finalize fishing and fish habitat restoration actions until the results of the MSRP/EPA fish contamination survey are known; if fish monitoring data find that reef fish are as contaminated as soft-bottom fish, the reef restoration measure would not be effective. The Trustees should incorporate the final fish contamination data into the Restoration Plan.*

*Source(s): EPA*

The fish contamination data currently being generated are extremely unlikely to find that reef fish are as contaminated as soft-bottom fish. The Trustees have thoroughly reviewed the Palos Verdes shelf fish contamination monitoring data from the past decade. These data include both soft-bottom and reef species; the data have consistently shown reef species to be orders of magnitude lower in DDTs and PCBs than soft-bottom species. The value of the current monitoring data is not to confirm that the reef restoration action will be effective, but rather to refine the areas where it will be most effective. Thus, for purposes of describing the reef restoration concept, it is unnecessary to delay other restoration activities while the fish contaminant survey data are finalized, validated, and reviewed by the California Office of Environmental Health Hazard Assessment (OEHHA) to generate updated fish consumption advisories.

*Comment: Constructed reefs would be an effective means of attracting less contaminated fish, although one reviewer felt that the amount of funding allotted is inadequate.*

*Source(s): Office of Environmental Health Hazard Assessment; R. Ambrose*

The Trustees recognize that the current allocation of funds to reef restoration projects is limited. However, the Trustees believe that sufficient funds have been allocated to achieve the Phase 1 restoration goal of initiating two to three reef projects. Further allocations to reef restoration projects will be considered for the next phase of the restoration. Reef construction will be adaptive (i.e., the monitoring of the results of early work will help guide subsequent work). The degree of additional funding will depend on the observed effectiveness of the projects in Phase 1.

*Comment: Placing reefs in contaminated areas would only expand the dispersal of the DDTs to new animal and plant species, and more fishermen and fish eaters.*

*Source(s): M. Padian*

The goal of constructing artificial reefs and fishing access improvements is to restore lost fishing services by changing the species composition of fish in selected fishing areas. The premise of this restoration action is that the fish, particularly white croaker, that are associated with soft-

bottom habitats feed on benthic organisms from the contaminated sediments and are consequently the most highly contaminated species. In contrast, fish associated with hard-bottom or pelagic habitats feed on organisms that are either living in the water column or attached to hard substrate and are consequently less contaminated.

The construction of a reef is likely to change the types of fish in the area because soft-bottom species do not typically inhabit reef habitats (Allen 1999). The primary benefit of this action will be to displace these highly contaminated, soft-bottom fishes with water-column-feeding and hard-bottom species, which tend to be lower in contamination. Building reefs will also provide ecosystem benefits by increasing the production of fish whose tissues contain lower concentrations of contaminants (Dixon and Schroeter 1998).

*Comment: Any future nearshore artificial reef or fishing access projects proposed along the base of the Palos Verdes coastal bluffs should be carefully designed to address the potential to trigger or exacerbate landslide movement.*

*Source(s): City of Rancho Palos Verdes*

The Trustees intend to evaluate all potential adverse impacts of reef construction as development progresses. This evaluation will be applied on a site-specific basis and will be covered by separate environmental impact documents for each reef project that will be subject to public review and comment. The Trustees will include local authorities and the public in all aspects of reef location, design, and construction.

*Comment: Any reef projects proposed near the Palos Verdes Shelf should address the potential of LA County Sanitation Department's current and proposed drainage pipes, which are still distributing DDTs and PCBs.*

*Source(s): J. Marquez*

Monitoring of the current wastewater discharge from the LACSD White Point outfalls indicates that the levels of these contaminants are now almost undetectable. The Trustees will, however, coordinate all reef-building activities with LACSD to prevent any conflicts that may exist between proposed reef projects and the impact or function of existing or planned outfalls.

*Comment: Fishing access improvements do not qualify as restoration for injuries to natural resources. Although pier improvements would enhance the public's fishing experience, they would not provide any restoration to the marine environment.*

*Source(s): Heal the Bay; Santa Monica Baykeeper*

Fishing access improvements address the loss of natural resource services resulting from fish consumption advisories, which impact the public's use and enjoyment of the resource. In addition, fish consumption advisories in the target area are most limiting on species of fish commonly caught from piers, due to the predominance of soft-bottom habitats adjacent to the piers. Thus, pier anglers are disproportionately affected by fish consumption advisories as compared to boat-mode anglers.

Reef construction would restore lost fishing services (and, more broadly, restore fish and the habitat on which they depend) by displacing the more highly contaminated soft-bottom species of fish away from the piers and replacing them with less-contaminated reef species. Providing

for improvements to fishing amenities at fishing sites along with fish habitat manipulation in proximity to these fishing sites offers additional compensatory restoration for past losses of fishing services. We have modified the text in the detailed description of this action (Appendix A1) to include this clarification.

*Comment:* Support the concept of providing fishing access improvements.

*Source(s):* Office of Environmental Health Hazard Assessment (OEHHA)

Comment noted.

#### 9.2.5 Comments on "Provide Public Information to Restore Lost Fishing Services"

*Comment:* Although public outreach is important, it is more appropriately addressed through the existing institutional controls program administered by EPA and its partners, and implementation of such a program by MSRP would lead to a redundancy in efforts. Another reviewer felt that the funds set aside for such outreach should instead be combined with the \$500,000 to implement MPAs.

*Source(s):* Heal the Bay; Santa Monica Baykeeper; C. Broussard

The Trustees agree that public outreach is a critical component of the Montrose settlements; however, these comments reflect a misunderstanding of the nature of the injury that MSRP outreach would be designed to restore (i.e., lost fishing opportunities/enjoyment). The institutional controls program administered by the EPA through the FCEC has brought together a network of community-based organizations (CBOs) and other partners. This network creates a forum for distributing a common message regarding contaminants in fish to those that are likely to be exposed to high body burdens of DDTs and PCBs as a result of consuming locally caught fish (e.g., local subsistence anglers).

The outreach objectives of the Trustees are different. The EPA has been an effective leader in bringing partners together and generating a common message that clearly identifies how anglers can avoid exposures to PCBs and DDTs in fish, but the emphasis has been on avoidance rather than on restoration of lost fishing services. To provide anglers with alternatives to lost fishing opportunities, MSRP must have knowledge of contaminant levels in fishes that are not included in fish consumption advisories, including knowledge of other contaminants (principally mercury) that are likely to limit consumption. (The EPA has determined that it cannot fund mercury analyses for this case.) MSRP must also consider the ecological and life-history differences between species of fish and how these differences influence contaminant levels in the fish. These ecological and life-history differences go beyond the general, and at times inaccurate, presumption that higher trophic levels and larger fish are more contaminated and include factors such as home range, migratory behavior, foraging mode, and habitat preferences. Because these considerations stem from the fact that fish are a living marine resource, messages related to the restoration of lost fish services are most appropriately generated by resource management agencies having such expertise.

The Trustees will work closely with the EPA and other FCEC partners to develop a cohesive set of outreach and education messages. Indeed, the Trustees have been active partners with the FCEC and have contributed expertise and support for the program from its beginning. The Trustees produced several pilot outreach projects to evaluate the viability of outreach as a

restoration action. These pilot-level projects include an educational comic book that provides a history of the Montrose case and information on reducing health risks while enjoying the benefits of fishing, a fish identification card, and contributions to other FCEC materials. MSRP receives constant requests for a revised and larger-scale comic book printing and more fish ID cards from FCEC partners (including Heal the Bay). In fact, it was the overwhelmingly positive response to these pilot projects that confirmed the value of the Trustees' role in developing a complete set of messages regarding "smart" fishing in the areas impacted by the Montrose contaminants.

The Trustees have edited Appendix A2 to clarify the distinctions between the EPA and the MSRP contributions to the overall messages presented to anglers and to clarify the Trustees' intent to implement a fishing outreach and education effort in collaboration with FCEC partners to integrate the critical components of the outreach messages that are not provided by the EPA.

*Comment: Support is given to the MSRP for its new and continuing efforts to provide information to the public concerning fishing options and resource contamination.*

*Source(s): Office of Environmental Health Hazard Assessment*

Comment noted.

#### 9.2.6 Comments on "Restore Full Tidal Exchange Wetlands"

*Comment: Wetlands restoration is the only "true mitigation" proposed in the Restoration Plan, and more funding should be allocated to such restoration. The wetland restoration should be focused on a specific area between Point Dume and Bolsa Chica.*

*Source(s): Heal the Bay; Santa Monica Baykeeper*

The Trustees disagree that wetland restoration is the only "true" mitigation proposed in the Restoration Plan and believe that other restoration actions have many ecologically restorative aspects. The Trustees' preferred alternative, Alternative 2, proposes a broader set of fishing and fish habitat restoration actions than the non-preferred Alternative 3.

All other factors being the same, the Trustees would give preference to actions that are in closer proximity to the sites of the injuries associated with the Montrose case. However, the Trustees do not consider it advisable to restrict the boundaries for where wetlands restoration would be considered to such a narrow geographic range (Point Dume to Bolsa Chica). The impacts of DDTs and PCBs have been demonstrated to occur far beyond these boundaries, so conducting wetlands restoration beyond these boundaries to restore these impacts is justified. However, the Trustees will evaluate the proximity of potential sites to the Palos Verdes Shelf region, among other criteria, when evaluating wetlands restoration projects.

*Comment: Wetlands can occasionally be sites of increased mercury methylation.*

*Source(s): Office of Environmental Health Hazards Assessment*

The Trustees will investigate the issue of potential mercury methylation in considering the potential fisheries effects of wetlands restoration.

*Comment: The concept of wetlands restoration is supported.*

*Source(s): Office of Environmental Health Hazards Assessment; Los Angeles Regional Water Quality Control Board*

Comments noted.

*Comment: The Trustees should contribute funding to implement the recommendations of the Southern California Wetlands Recovery Project (SCWRP) as those are formulated and released.*

*Source(s): Los Angeles Regional Water Quality Control Board*

The Trustees' preferred alternative includes the restoration of full tidal exchange wetlands as one of the actions to restore fishing and fish habitat. The Trustees will work closely with SCWRP to identify the most appropriate wetlands restoration project(s) to meet the MSRP restoration objectives.

### 9.2.7 Comments on "Augment Funds for Implementing Marine Protected Areas in California"

*Comment: The MPA concept is supported.*

*Source(s): Office of Environmental Health Hazard Assessment; Los Angeles Regional Water Quality Control Board*

Comments noted.

## 9.3 BALD EAGLE RESTORATION COMMENTS

### 9.3.1 General Bald Eagle Comments

*Comment: Man is responsible for DDT and should compensate the eagles and help them recover.*

*Source(s): Multiple public reviewers*

Bald eagles are one of the priority resources for the MSRP. The Trustees are committed to pursuing the restoration of bald eagles on the Channel Islands and have allocated a total of \$6.2 million in Phase 1 to help them recover. The Trustees were formed to work on behalf of the public to restore those resources injured by the DDT contamination at issue in the Montrose case, and bald eagles are among the injured resources. The funding of the NCI Bald Eagle Feasibility Study as well as previous funding of the Santa Catalina Island Bald Eagle Program are both examples of efforts that the Trustees have funded to help bald eagles recover on the Channel Islands.

*Comment: The bald eagle is a yardstick to measure DDT contamination in Southern California's coastal waters.*

*Source(s): R. Roe*

The Trustees agree that bald eagles are an excellent indicator of the levels of DDTs and PCBs in the Southern California Bight, due to their position as a top predator in the food chain. However,

this fact is not a sufficient reason to maintain eagles on Santa Catalina Island. The levels of DDTs and PCBs can be measured in a variety of sources (such as sediments, fish, and marine mammals) that provide a picture of current contaminant levels in the marine environment and indicate whether levels are decreasing.

### 9.3.2 Funding Allocation for Bald Eagle Restoration

*Comment: Funds should be spent on restoring bald eagles to Catalina, rather than on efforts to eradicate non-native species on islands which are more distant from the principal source of contamination than Catalina.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

As stated previously, the Montrose consent decrees contain provisions that identify the appropriate uses of settlement funds. Funds paid to the Trustees are to be used to address injuries and lost services for a suite of natural resources and natural resource services. These resources and services include fishing and fish habitat, bald eagles, peregrine falcons, and seabirds. The Trustees' preferred alternative attempts to restore the diversity of natural resources injured and the natural resource services lost as a result of the contaminants of the Montrose case.

The utilization of restoration funds to restore seabirds on other Channel Islands and on Baja California Pacific Islands is entirely within the scope of the Montrose consent decrees. The contaminants of the Montrose case impacted seabirds in many areas of the Southern California Bight. Because many seabird species either migrate or range across a broad expanse of the marine environment, the most effective restoration may not necessarily correspond to the location where contamination is heaviest. The specific methodologies for restoring seabirds include habitat restoration, non-native animal eradication, and social attraction. These methods have been used in other natural resource damage cases where direct restoration has not always been possible.

The Trustees have modified the text to address the concern that greater funding be devoted to bald eagle restoration. Previously, the Trustees' preferred alternative provided for the potential use of a portion of the bald eagle restoration funds for additional seabird restoration. Now, the Trustees propose to devote the entire \$6.2 million allocated to bald eagles in Phase 1 of the restoration effort to bald eagle restoration.

*Comment: Priority should be given to the reduction and elimination of non-native invasive animals and plants from island environments rather than the Catalina bald eagle egg manipulation and chick fostering program.*

*Source(s): Multiple public reviewers*

The Trustees have included several actions in their preferred alternative that involve the elimination of exotic organisms from several islands as a means of aiding the restoration of seabirds. These actions include "restore seabirds to San Miguel Island" and "restore seabirds to San Nicolas Island" (see Appendices D1 and D3).

*Comment: Support of the Santa Catalina Island bald eagle program is a small portion of the overall budget, and funding Catalina's recovery efforts is an investment in a comprehensive eagle recovery effort.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

Although the annual budget of approximately \$250,000 for the Santa Catalina Island Bald Eagle Program may appear insignificant compared to the overall settlement amount of \$30 million for restoration, the Trustees must address a range of natural resources and services that were injured by the DDT contamination. In addition to bald eagles on Santa Catalina Island, the Restoration Plan addresses injuries to bald eagles elsewhere in the Channel Islands as well as injuries to fishing and fish habitat, peregrine falcons, and seabirds. To adequately address the diversity of injuries associated with the Montrose case, the Trustees had to decide how to best spend the limited restoration funds. In the case of bald eagle restoration on the Channel Islands, the Trustees have decided to suspend funding of the Santa Catalina Island Bald Eagle Program until the results of the NCI Bald Eagle Feasibility Study are known in order to conserve and wisely use limited restoration dollars.

*Comment: Continuing human intervention at every stage of breeding would be a squandering of precious restoration dollars. Funding should be moved to places that more effectively benefit the environment and are more self-sustaining than the Santa Catalina Island program.*

*Source(s): Pacific Seabird Group; multiple public reviewers*

A diverse set of opinions were expressed in public comments on the bald eagle restoration options, including some which supported the current focus on restoring self-sustaining bald eagles on the Northern Channel Islands. The preferred alternative consists of many actions that address a wide range of injured natural resources and locations.

### 9.3.3 Suggested Funding Scenarios for Bald Eagle Restoration

*Comment: Funding of the Santa Catalina Island Bald Eagle Program should continue regardless of whether or not human intervention is always required.*

*Source(s): Multiple public reviewers*

With the persistence of DDT in the food web, the successful reproduction of bald eagles on Santa Catalina Island will require continued human intervention for a long time. Although some recovery efforts require long-term human assistance, the Trustees must decide which actions are most cost-effective and provide the greatest long-term benefit within the scope of the limited restoration funds available for this case. Given the range of natural resources that the Trustees are addressing, they believe that the large proportion of settlement funds that would be necessary to continue the current Santa Catalina Island Bald Eagle Program as long as required for bald eagles to be able to reproduce on their own can be better spent to benefit other injured resources and services, including bald eagles on the Northern Channel Islands.

*Comment: Funding should be set aside for future restoration work on Santa Catalina Island until such time that contamination levels decline.*

*Source(s): UCLA Environmental Science and Engineering Program; Island Conservation Northwest; Island Conservation; Multiple public reviewers*

The Trustees consider this comment a logical approach to future bald eagle restoration efforts on Santa Catalina Island. This approach will be evaluated when deciding on the subsequent bald eagle restoration actions once the results of the NCI Bald Eagle Feasibility Study are known. However, if bald eagles can reproduce successfully on the Northern Channel Islands, it is likely that the Trustees will focus restoration funds on those islands, with the expectation that eagles will eventually disperse and successfully breed on all the Channel Islands (including Santa Catalina Island) once contamination levels subside.

*Comment: Funding of the Santa Catalina Island Bald Eagle Program should continue at least until the results of the NCI Bald Eagle Feasibility Study are known.*

*Source(s): Avalon City Council; J. Morton*

The Trustees have seriously considered multiple funding scenarios with respect to the Santa Catalina Island Bald Eagle Program, including continued funding until the results of the NCI Bald Eagle Feasibility Study are known. However, the Trustees have concluded that it is highly likely that eagles will still be present on Santa Catalina Island when the results of the study are known in or around 2008 (see the responses for Section 9.3.7) even without an egg manipulation and fostering program in the interim. Consequently, the Trustees have decided to conserve limited restoration dollars until the results of the study are known.

*Comment: The Environmental Protection Agency should solve the contamination problem first before the Trustees bring eagles back to Santa Catalina Island.*

*Source(s): mymak@juno.com*

Given the scope of the contamination at issue in the Montrose case and the limited money to remediate the site, it is unlikely that the EPA will be able to fully solve the contamination problem through active remediation. Thus, reductions to background contamination levels will likely be achieved over time through natural processes. The Trustees will consider the option of setting aside funds for future bald eagle restoration work on Santa Catalina Island once the results of the NCI Bald Eagle Feasibility Study are known.

*Comment: Funding for the Santa Catalina Island Bald Eagle Program should be discontinued and the money used on projects that will benefit many species and island ecosystems as a whole.*

*Source(s): Multiple public reviewers*

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. However, until then, the Trustees will discontinue funding for the Santa Catalina Island Bald Eagle Program. When the results of the NCI Bald Eagle Feasibility Study 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. The remaining bald eagle restoration funds could then be used on any of the Channel Islands. This action

conserves limited restoration funds until sufficient information is known about the ability of the different Channel Island environments to support bald eagles.

*Comment: Some reviewers suggested additional ideas for fundraising to support bald eagle work on Santa Catalina Island.*

*Source(s): T. Marsh; D. MacKenzie*

The Trustees have forwarded all ideas for fundraising to support bald eagle work on Santa Catalina Island to the Institute for Wildlife Studies.

#### 9.3.4 Reproductive Status of Bald Eagles on Santa Catalina Island

*Comment: It is too soon to abandon restoration efforts on Santa Catalina Island. DDT levels are decreasing in the eggs of at least one pair of nesting eagles; this indicates that Santa Catalina Island bald eagles may soon be able to reproduce on their own.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

The Trustees performed a comprehensive analysis of the levels of DDT in the Santa Catalina Island bald eagle eggs and did not find any statistically significant trends indicating a reduction of DDT levels (see Appendix B). Three of the five bald eagle territories on the island (Pinnacle Rock, West End, and Two Harbors) produce eggs that continue to greatly exceed the contaminant thresholds associated with reproductive success. Although the two remaining territories (Seal Rocks and Twin Rocks) produce less-contaminated eggs, these eggs continue to exhibit concentrations above the threshold required for reproductive success. The Trustees did not find statistically significant trends for any of the five territories indicating that contaminant levels are declining to the point where eagles could be self-sustaining in the foreseeable future.

Several reviewers believe that the Santa Catalina Island Bald Eagle Program simply needs more time. The Trustees understand the challenges associated with restoring bald eagles in the presence of ongoing contamination and agree that there is no quick fix to the problem. However, the Trustees have limited restoration funds and must decide on how best to allocate that funding among actions whose benefits can be realized over the long term. In light of the continued high levels of contamination in bald eagles and the fact that the contamination will remain available in the food web for some time, continued funding of the Santa Catalina Island program in the short-term is unlikely to achieve the overall goal of restoring bald eagles to the Channel Islands. The Trustees have chosen to focus their current restoration efforts on the Northern Channel Islands, with the goal of establishing a self-sustaining population there. The results of the NCI Bald Eagle Feasibility Study are expected to be known in or around 2008. The Trustees anticipate that if eagles can successfully reproduce on the Northern Channel Islands, then eagles will eventually repopulate the rest of the Channel Islands, including Santa Catalina Island.

## 9.3.5 Public Access to Bald Eagles

*Comment: It is necessary to maintain high-profile conservation efforts such as the Santa Catalina Island Bald Eagle Program.*

*Source: Humboldt State University Department of Wildlife; J. Miller*

The Trustees recognize that the Santa Catalina Island Bald Eagle Program presents a useful educational and public outreach opportunity. Although education and public outreach are important benefits of the program, the Trustees' overall goal is to restore bald eagles to all of the Channel Islands, not just Santa Catalina Island. The Trustees' bald eagle efforts on the Northern Channel Islands have also received significant interest from the public and the press. The Trustees consider their overall effort to restore bald eagles to the Channel Islands a high-profile restoration effort, and public outreach will continue to be an important component of the program.

*Comment: Santa Catalina Island provides a significant number of people with the opportunity to enjoy bald eagles in a natural setting, and consequently should be a priority for restoration efforts.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

The Trustees recognize that the Santa Catalina Island Bald Eagle Program provides a great opportunity for the public to experience and learn about bald eagles. Although public access to restoration actions is a consideration in evaluating these actions, it is one of multiple factors that the Trustees must address. At this time, the Trustees have chosen to focus on the restoration of bald eagles on the Northern Channel Islands. In addition, bald eagle experts indicate that the eagles will likely remain on Santa Catalina Island, at least until the NCI Bald Eagle Feasibility Study is expected to be completed. Although the Northern Channel Islands do not receive as many visitors as Santa Catalina Island, the public does have access to the islands, and visitation is encouraged by the National Park Service. The Trustees have modified the bald eagle restoration provisions in the Restoration Plan in response to this and other issues raised in public comments and will revisit bald eagle restoration options, including options on Santa Catalina Island, once the results of the NCI Bald Eagle Feasibility Study are known.

It should also be noted that Santa Catalina Island is not the only place where the public can observe wild bald eagles in Southern California. Every year, bald eagles migrate to Southern California for the winter. Among other places, wintering bald eagles can be enjoyed by the public at Big Bear Lake, Silverwood Lake, Lake Arrowhead, Lake Hemet, and Cachuma Lake.

*Comment: Funding of the Santa Catalina Island Bald Eagle Program should be continued as an education tool for the benefit of our children and grandchildren.*

*Source(s): Multiple public reviewers*

The Trustees appreciate the fact that people, both young and old, cherish the opportunity to view bald eagles in the wild. The Trustees have placed a high priority on those actions that will have long-term benefits to both the injured natural resource (i.e., the bald eagle) and the public. In the present circumstances, given finite funds, the Santa Catalina Island Bald Eagle Program will not result in long-term benefits to bald eagles or the public unless bald eagles are able to reproduce successfully on their own. The Trustees are hopeful that the restoration of eagles to the Northern Channel Islands will be self-sustaining and will not require the same human intervention that

characterizes the Santa Catalina Island Bald Eagle Program. Only the establishment of self-sustaining bald eagle pairs on the Channel Islands will truly provide long-term benefits for generations to come.

*Comment: You have to decide whether the money that you are going to be saving by not having that bald eagle reintroduction program is going to be worth the public relations problem you are going to have.*

*Source(s): S. Pillman*

The Trustees recognize that the public places a high value on the presence of bald eagles on the Channel Islands, whether or not the eagles are reproducing on their own. The Trustees have modified the bald eagle restoration provisions in the Restoration Plan in response to this and other issues raised in public comments and will revisit the bald eagle restoration options, including options on Santa Catalina Island, once the results of the NCI Bald Eagle Feasibility Study are known. The Trustees will then release a subsequent NEPA/CEQA document for public review and input; that document will outline the next steps for bald eagle restoration on the Channel Islands.

### 9.3.6 Potential Benefits of Funding the Santa Catalina Island Bald Eagle Program

*Comment: The Santa Catalina Island Bald Eagle Program may be able to provide important strategies for long-term chemical impacts and recovery efforts.*

*Source(s): M. Gaede*

The fact that bald eagles on Santa Catalina Island continue to experience reproductive problems illustrates the persistence of chemicals (specifically, DDTs and PCBs) in the marine environment. The methods used to maintain bald eagles on Santa Catalina Island (artificial incubation of eggs and hacking of additional birds) are well established and have been successfully used in several recovery efforts. However, the Santa Catalina Island program is unique in that the contaminant levels in the bald eagle eggs are substantially higher than the levels seen elsewhere. Therefore, the challenges of artificial incubation of bald eagle eggs on Santa Catalina Island are much greater than for most incubation efforts. Although the use of novel techniques in the incubation of bald eagle eggs on Santa Catalina Island might advance the science of such recovery efforts in other species, it is unlikely that other bird eggs will demonstrate similar contaminant levels in their eggs.

*Comment: The bald eagles produced on Santa Catalina Island are a potential source population for the recovery of bald eagles on the Northern Channel Islands and the adjacent mainland.*

*Source(s): Catalina Island Conservancy; multiple public reviewers*

The Trustees are aware that eagles from Santa Catalina Island have dispersed to the mainland and that several individuals have recently been observed on the Northern Channel Islands. However, because the Santa Catalina Island eagles continue to lay highly contaminated eggs, the majority of the chicks that have been fostered on Santa Catalina Island have come from a captive breeding program at the San Francisco Zoo, not from the Santa Catalina Island birds themselves. Even with human intervention, the hatching success of Santa Catalina Island eggs remains low. The Trustees believe that hacking birds directly onto Santa Cruz Island is a more effective

strategy for restoring eagles to the Channel Islands than continuing the fostering program on Santa Catalina Island.

The California mainland population of bald eagles has steadily increased to approximately 200 nesting pairs in recent years (Jurek, pers. comm., 2005). The mainland eagle population trend is the result of natural population growth with no captive breeding or augmentation of wild nests. Although the mainland population is being slightly augmented by the released birds from Santa Catalina Island, the recovery of the bald eagle on the mainland is occurring regardless of this contribution.

### 9.3.7 Potential Impacts of Not Funding the Santa Catalina Island Bald Eagle Program

*Comment: It cannot be assumed that Santa Catalina Island's current population of eagles would stay on the island if they couldn't reproduce over the next few years. The reallocation of funds could mean the disappearance once again of bald eagles from Santa Catalina Island.*

*Source: Catalina Island Conservancy; multiple public reviewers*

Even without continued Trustee funding of 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 are present on the island, and the Institute for Wildlife Studies reports that two birds are currently establishing a new territory near Avalon. Even if 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 the 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 be present on 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. In response to comments from the public, the Trustees have modified provisions for bald eagle restoration in the revised Restoration Plan. As a result, the Trustees will re-evaluate all bald eagle restoration options when the results of the NCI Bald Eagle Feasibility Study are known. If the results 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 in the Channel Islands, including Santa Catalina Island. Some options may not be as costly as the current egg manipulation and chick fostering work on Santa Catalina Island. For instance, the Trustees might devote funds at a later date to monitor bald eagle numbers and periodically place young bald eagles on the Channel Islands (a process known as "hacking"). This option would continue a non-breeding bald eagle presence on the Channel Islands, providing human use and ecological services, until such time that contaminant levels diminish to a level that would support naturally reproducing eagles or so long as funding remains.

*Comment: Stopping the Santa Catalina Island Bald Eagle Program could negatively impact the endangered Catalina Island fox.*

*Source(s): Catalina Island Conservancy; several public reviewers*

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 (see Appendix B).

**9.3.8 Humane Treatment of Bald Eagles**

*Comment: Abandoning eagles on Santa Catalina Island is inhumane.*

*Source: K. McKay*

*Comment: Keeping eagles on Santa Catalina Island, where they continue to be injured, is wrong.*

*Source(s): M. Padian; J. Steinberg*

These two contrasting comments address the challenges of restoring bald eagles in an environment where they continue to be exposed to contamination. Over the past 25 years, the parties working to restore bald eagles, including the Trustees, have found that the long-term restoration of bald eagles on the Channel Islands requires different measures. Some of these measures may entail risks that the birds continue to be exposed to contamination and its adverse effects.

Adult bald eagles that accumulate high levels of DDTs and PCBs into their system can experience a range of neurological problems that can sometimes lead to death. In fact, a 12-year old female adult bald eagle died from suspected DDT poisoning on Santa Catalina Island in the 1990s. Because of the ongoing contamination of birds and their subsequent reproductive problems on Santa Catalina Island, the Trustees initiated the NCI Bald Eagle Feasibility Study in the hopes that birds on these islands would be less exposed to contaminants than those on Santa Catalina Island.

**9.3.9 Bald Eagles and the Santa Catalina Island Economy**

*Comment: If bald eagles disappear from Santa Catalina Island, the island's economy may be affected.*

*Source: S. Dewey*

The Trustees do not anticipate that suspending the funding of the Santa Catalina Island Bald Eagle Program will result in the disappearance of the bald eagles in the near future (see Section 9.3.7). The high likelihood that eagle pairs will remain on the island over the next several years (even without human intervention) provides the opportunity for private or other public fundraising to continue the current Santa Catalina Island Bald Eagle Program. The Trustees are only making an interim decision at this point; the completion of the NCI Bald Eagle Feasibility Study and the Trustees' release of an additional NEPA/CEQA document will provide a further opportunity for public input on bald eagle restoration.

**9.3.10 New Bald Eagle Restoration Ideas**

*Comment: Was there any discussion about providing some funding to monitor what is going on over a period of years, what will happen to that population on Santa Catalina Island if funding for the egg replacement ceases after 2005?*

*Source(s): Catalina Island Conservancy*

During the interim period until the NCI Bald Eagle Feasibility Study is completed, the Trustees have chosen to focus their restoration efforts on the Northern Channel Islands, which continue to

hold the potential for the long-term restoration of bald eagles, and suspend funding of the Santa Catalina Island Bald Eagle Program. The Trustees considered but decided against funding to monitor Santa Catalina Island during this time to conserve limited restoration funds for future bald eagle restoration actions. However, the Trustees will revisit all aspects of bald eagle restoration once the results of the NCI Bald Eagle Feasibility Study are known, likely in 2008.

Even without continued Trustee funding of 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 are present on the island, and the Institute for Wildlife Studies reports that two birds are currently establishing a new territory near Avalon. Even assuming that 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 be on 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 are still experiencing 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.

*Comment: Certain reviewers suggested that the Trustees relocate Santa Catalina Island bald eagle eggs to non-contaminated areas far from the Palos Verdes Shelf. Another suggested that the Santa Catalina Island birds be moved to the Northern Channel Islands until the DDTs and PCBs near the outfall are naturally capped.*

*Source(s): J. Martin; S. Zelman; D. Weisman*

Relocating Santa Catalina Island bald eagle eggs away from the Palos Verdes Shelf raises several technical issues and would not address the MSRP goal of restoring bald eagles to the Southern California Bight. If the Santa Catalina Island bald eagles were to be relocated to the Northern Channel Islands, there would be no guarantee that the birds would remain there; they might return to their original Santa Catalina island territories.

*Comment: The Trustees should consider commercially farming fish off of Santa Catalina Island for bald eagles and sport fishermen.*

*Source(s): T. Marsh*

Although fish constitute a large percentage of the diet of bald eagles on Santa Catalina Island, bald eagles are exposed to DDTs and PCBs mostly through their consumption of contaminated marine mammal carcasses and seabirds. Compared to marine mammals and seabirds, fish around Santa Catalina Island are relatively clean and are not contributing significantly to bald eagle

exposure. Therefore, a program for the commercial farming of fish off of the island would not be an effective way to reduce the exposure of bald eagles to contaminants.

*Comment: Bald eagle eggs and adults should be tested for methyl mercury due to the biological damage it causes.*

*Source(s): J. Lara*

Mercury has been linked to reproductive problems in several species of birds. Currently, bald eagle eggs on Santa Catalina Island are analyzed for DDTs and PCBs. The Trustees are analyzing mercury as part of the fish sampling program along the coast of Ventura, Los Angeles, and Orange Counties to provide important information to fish consumers. The Trustees may consider analyzing the mercury concentrations in bald eagle eggs in the future.

### 9.3.11 NEPA Documentation

*Comment: The Trustees should consider preparing subsequent NEPA documentation to allow for more meaningful public involvement once the ramifications of decisions regarding the fate of the bald eagle are clearer.*

*Source(s): EPA*

Based on public comments, the Trustees now plan to prepare a subsequent NEPA/CEQA document once the outcome of the NCI Bald Eagle Feasibility Study is known. This document will discuss the Trustees' preferred next steps for bald eagle restoration on the Channel Islands. The public will have an opportunity to review and provide formal comment on this document.

### 9.3.12 Ecosystem-Level Restoration

*Comment: Restoration is not limited to establishing self-sustaining populations, rather it means restoring functioning ecosystems.*

*Source(s): D.H. Van Vuren*

All other evaluation criteria being equal, the Trustees gave preference to actions with greater potential for long-term and/or permanent benefits and without intensive ongoing human intervention and attendant costs. Thus, the Trustees preferred actions likely to produce results that extend beyond the time during which funding is available. Whether or not this objective is achievable for bald eagles in light of the ongoing contamination remains to be seen.

The Trustees acknowledge the important role that bald eagles play in the ecosystem of the Channel Islands. Due to their ecological role and in response to the public support for the eagles, the Trustees will now allocate the entire \$6.2 million for bald eagle restoration on the Channel Islands and will consider actions that are not self-sustaining if eagles on the Northern Channel Islands cannot reproduce on their own.

## 9.4 PEREGRINE FALCON RESTORATION COMMENTS

## 9.4.1 Use of the Term “Natural Recovery” for Peregrine Falcons

*Comment: Referring to the recovery of peregrine falcons on the Channel Islands as “natural” is incorrect due to past and continuing active release efforts conducted by the Santa Cruz Predatory Bird Research Group and funded by donations and other non-Montrose support.*

*Source(s): Santa Cruz Predatory Bird Research Group*

In the Restoration Plan, the Trustees discuss that the recovery of the peregrine falcon was largely due to an active release program. Peregrine falcon recovery on the Channel Islands has clearly benefited from the ongoing release program conducted by the Santa Cruz Predatory Bird Research Group on the proximate mainland. However, it is known that peregrine falcon pairs on the Northern Channel Islands are reproducing successfully and that natural recruitment is occurring. Therefore, it is likely that the continued recovery of the peregrine falcon on the Channel Islands is due to a combination of natural recovery and the active release program on the mainland. The Trustees agree that the use of the term “natural recovery” does not portray the overall situation on the Channel Islands and have consequently modified the text of the Restoration Plan.

## 9.4.2 Allocation of Funds to Peregrine Falcon Restoration

*Comment: No additional funds should be allocated towards the peregrine falcon due to their current status on the Channel Islands. One commenter questioned why monitoring would occur if the Trustees were not going to implement active restoration.*

*Source(s): J. Adams; R. Ambrose*

Peregrine falcons are one of the MSRP priority bird species due to the DDT-related eggshell thinning injuries that this species has suffered. Although these birds are once again breeding successfully on the Northern Channel Islands, the extent of their recovery throughout the Channel Islands is not clearly known. Also unknown is whether pairs are still experiencing reduced productivity due to the ongoing effects of DDT contamination. It is important to monitor the current status of and the potential ongoing threats to this species before considering future active restoration efforts (such as releasing additional birds on the islands). Several peregrine falcon surveys will occur within Phase 1 of restoration implementation. After considering the results of these surveys, the Trustees may decide to proceed with active restoration efforts in Phase 2 of the restoration program.

**9.4.3 Active Restoration of Peregrine Falcons on Santa Catalina Island**

*Comment: The Trustees should pursue active restoration of peregrine falcons on Santa Catalina Island. One commenter urged the Trustees to consider the need for active restoration on the Channel Islands after the survey results are known.*

*Source(s): Catalina Island Conservancy; USC Wrigley Institute for Environmental Studies; multiple public reviewers*

The Trustees evaluated active restoration of peregrine falcons on the Channel Islands (see Appendix C1). As part of this action, the Trustees evaluated releasing additional peregrine falcons on Santa Catalina Island to facilitate the recovery of this species to the Southern Channel Islands. However, the Trustees concluded that active restoration was not necessary at this time on the Channel Islands (including Santa Catalina Island) for the following reasons: (1) the current status of peregrine falcons on the Channel Islands, (2) the results of the 2004 Santa Catalina Island peregrine falcon survey funded by the Trustees, and (3) the potential impacts to sensitive bird species. These factors are described and evaluated in greater detail in Appendix C1. Over the next 5 years, the Trustees will fund several peregrine falcon surveys on the Channel Islands that will provide updated information on the status of these birds. Based on the results of these surveys, the Trustees may decide to proceed with active restoration activities on the Channel Islands in Phase 2 of the restoration program. A subsequent NEPA/CEQA document will be released to the public to address future restoration actions in Phase 2.

**9.4.4 Budget and Time Frame for Peregrine Falcon Restoration**

*Comment: The draft restoration plan departs from the spirit of the outcome of the court case when it comes to addressing the actual damages for which Montrose is accountable. The Judge in that case calculated the damages done to the resources and came up with a figure of \$7 million for peregrine falcon restoration.*

*Source(s): Santa Cruz Predatory Bird Research Group*

Contrary to this comment, the court did not determine a distinct dollar value for the peregrine falcon injuries or for any of the injured resources in this case. The Trustees provided estimates to the court during litigation concerning the potential costs of restoration. The final consent decree does not specify how funding should be allocated among the different injured resources and lost services. See Section 9.4.3 for a discussion of the Trustees' decisions regarding active peregrine falcon restoration.

*Comment: The proposed monitoring budget is not adequate to address recruitment, dispersal, and foraging behavior of peregrine falcons on the Channel Islands. Monitoring should also be expanded to include the coastal mainland and the Baja California Pacific Islands.*

*Source(s): Santa Cruz Predatory Bird Research Group*

The Restoration Plan outlines a number of parameters (such as productivity, recruitment, dispersal) that would be considered in the peregrine falcon monitoring program. The importance and scope of these parameters will be prioritized during the development of the monitoring plan.

The scope and extent of the monitoring program will determine the ultimate budget for this action. At this point, the proposed budget is an estimate based on consultation with several peregrine falcon experts. The budget may be adjusted once the objectives and scope of the monitoring program are more clearly defined.

The Trustees considered implementing a monitoring program in the Baja California Pacific Islands, as discussed in Appendix C3. The Trustees also previously considered several mainland peregrine falcon actions during the Tier 1 analysis. However, based on the injury information for the case and the increasing number of peregrine falcons on the mainland, the Trustees decided that restoration and/or monitoring activities on the Channel Islands would receive priority over monitoring at other locations.

#### 9.4.5 Threat of Peregrine Falcon Restoration to Seabird Populations

*Comment: Restoration activities for peregrine falcons may pose significant threats towards depleted and rare seabirds.*

*Source(s): J. Adams*

In Appendix C1, the Trustees addressed the potential impacts to depleted and rare birds (including seabirds) from active peregrine falcon restoration activities on the Channel Islands. These potential impacts were one of the reasons for not selecting active restoration of peregrine falcons at this time. Rather, the Trustees have chosen to monitor the status of peregrine falcons on the Channel Islands during Phase 1 of restoration implementation. These monitoring activities will be undertaken in such manner as to avoid impacts to seabird colonies. Should surveys indicate that active restoration of peregrine falcons is warranted on the Channel Islands, the Trustees will fully evaluate the potential impacts to rare seabirds in the Phase 2 NEPA/CEQA document.

### 9.5 SEABIRD RESTORATION COMMENTS

The Trustees received many letters in support of Alternative 2 with respect to seabird restoration actions. Those in support felt that Alternative 2 provides a more appropriate level of funding to restore seabird populations impacted by Montrose DDT releases. Supporters of Alternative 2 stated that the proposed seabird actions will promote long-term significant benefits to seabird populations. Specific comments received on the seabird actions are addressed below.

#### 9.5.1 Seabird Nexus

*Comment: Several reviewers objected to the level of funding for seabird restoration actions, questioning the nexus of seabird injuries to the Montrose case.*

*Source(s): UCLA Environmental Science and Engineering Program; Heal the Bay; Santa Monica Baykeeper; multiple public reviewers*

The final consent decree for the Montrose case included seabirds as a target for restoration funds due to the injuries associated with DDT-related eggshell thinning. The Trustees closely evaluated the nexus for seabirds and targeted restoration actions for those seabirds that demonstrated severe or significant eggshell thinning and/or for which DDT egg residues were significantly elevated in the colonies of the Southern California Bight. A complete description of the seabird

nexus can be found in Section 5.1. Although seabirds may not be experiencing continued injury that is similar to that of the bald eagles on Santa Catalina Island, their populations were clearly impacted by DDT contamination in the Southern California Bight.

Seabirds are also consumed by both bald eagles and peregrine falcons, two high-priority bird species for this restoration program. Actions that increase seabird populations in the Southern California Bight will also provide indirect benefits to the recovery of bald eagles and peregrine falcons on the Channel Islands. For these reasons, it is appropriate to allocate substantial funding to the seabird category.

*Comment: Other reviewers supported the use of funds for seabird restoration as part of the preferred alternative (Alternative 2).*

*Source(s): Pacific Seabird Group; multiple public reviewers*

Comment noted.

### 9.5.2 Seabird Restoration on Baja California, Mexico

*Comment: Funds should not be spent on seabird restoration in Baja California because it is far from the contamination source and not related to the Montrose case.*

*Source(s): Heal the Bay; Santa Monica Baykeeper; Catalina Island Conservancy; USC Wrigley Institute for Environmental Studies; multiple public reviewers*

As discussed in Appendix D5, many of the seabird species that breed on the Baja California Pacific Islands also breed on the Channel Islands. Several of the Baja California Pacific Islands are oceanographically part of the Southern California Bight and most of the seabird colonies in Mexico and California form part of a larger metapopulation of seabirds that breed, forage, and disperse into the Southern California Bight. The Trustees are targeting seabird restoration actions on both the Baja California Pacific Islands and the Channel Islands because seabird populations in both locations demonstrated injury from eggshell thinning as a result of DDT contamination. For example, the California brown pelican sustained almost complete reproductive failure due to DDT-related eggshell thinning in the late 1960s and early 1970s on both the Coronado Islands in Mexico and Anacapa Island in the Channel Islands. Restoration actions in both of these areas will directly benefit seabird populations that were impacted by the contamination addressed in the Montrose case.

### 9.5.3 Additional Seabird Data Gap Studies

*Comment: Additional studies should be conducted to determine the extent of the seabird injuries due to DDT contamination. Specifically, the Trustees should monitor the levels of DDT and PCB contamination in sooty shearwater, black-vented and pink-footed shearwaters in addition to the other nesting birds of the SCB*

*Source(s): J. Adams; H. Nevins*

During the damage assessment for the Montrose case, the Trustees funded several data gap studies for seabirds to determine potential injuries from DDT contamination. At that time, the Trustees focused on injuries to nesting seabirds in the Southern California Bight. Although additional data gap studies could have been conducted to determine potential injuries to

migratory species, the Trustees decided to focus on breeding seabirds of the Southern California Bight for the case. Even with this more narrow focus, there are still more seabird restoration actions for these species than available funding. Because of the limited funding for seabird restoration, the Trustees prefer to spend funds on actual on-the-ground restoration activities rather than conduct further data gap studies to determine additional seabird injuries. The Trustees believe that the proposed seabird restoration actions will provide long-term benefits to a suite of seabirds that nest within the Southern California Bight.

#### 9.5.4 Additional Long-Term Seabird Monitoring in the Southern California Bight

*Comment: The Trustees should fund long-term seabird monitoring to better understand the biology of seabirds in the Southern California Bight, as well as long-term monitoring efforts to assess seabird species and their prey fishes within the Channel Islands Marine Protected Area. One reviewer specifically mentioned that the Trustees should also monitor seabirds on Anacapa following the recent black rat removal.*

*Source(s): J. Adams; multiple public reviewers*

The Trustees have allocated a total of \$6.5 million to fund five seabird restoration actions in their preferred alternative. These actions include habitat restoration, eradication of exotics, and social attraction. The decision to fund habitat-based restoration rather than monitoring efforts for seabirds reflects the Trustees' desire to fund direct restoration actions for seabirds. These types of restoration actions have proven to provide significant benefits to seabird populations throughout the world. Although important, monitoring programs for seabirds do not achieve the Trustees' goal of restoring seabirds within the Southern California Bight. The Trustees are also aware of other efforts to implement monitoring programs for seabirds, such as the Seabird Conservation Plan recently developed by the U.S. Fish and Wildlife Service. The Trustees' preferred alternative also calls for augmenting funds to support implementation, including monitoring, of the Channel Islands MPAs.

#### 9.5.5 Restoration of Additional Seabird Species and Locations

*Comment: The Restoration Plan only targets a few seabird species and ignores the vast majority of marine birds that forage in the Southern California Bight but breed elsewhere.*

*Source(s): H. Nevins; J. Adams*

The Trustees recognize that migratory seabird species were likely exposed to DDT and PCB contamination while foraging in the Southern California Bight. However, based on the injury information collected for the case and the limited funds available for seabird restoration, the Trustees prioritized nine breeding seabird species of the Southern California Bight for restoration.

In general, the Trustees support trans-boundary restoration efforts, as demonstrated by their support for seabird actions in Mexico. Actions in New Zealand and Chile were not included in the preferred alternative because of their weaker nexus to the case. Also, the Trustee Council for the Command oil spill case is already pursuing seabird restoration in New Zealand. Given the

limited restoration funds available, the Montrose Trustees have chosen to prioritize their seabird restoration efforts in the Southern California Bight and Baja California, Mexico.

#### 9.5.6 Impacts to Humans Who Consume Seabirds

*Comment: The Restoration Plan fails to recognize the human reliance on migratory species likely affected by DDTs. The Trustees should further investigate the extent of contaminant exposure affecting cultural harvest and human consumptions of sooty shearwaters in New Zealand.*

*Source(s): H. Nevins*

Based on the limited restoration funds available for seabird actions, the Trustees have chosen to focus on on-the-ground restoration actions rather than further explore the potential injuries of the case. The potential effect to humans in New Zealand was not addressed at the time of the damage assessment, and the Trustees consider these potential impacts to be outside the scope of the restoration program.

#### 9.5.7 Impacts to Seabirds from Other Restoration Actions

*Comment: Restoring bald eagles would likely undermine several of the seabird restoration actions because eagles will eat or harass seabirds.*

*Source(s): Pacific Seabird Group*

The potential impact of bald eagles on seabirds is addressed in both the Restoration Plan (Appendix B) and the Environmental Assessment for the Feasibility Study for the Reestablishment of Bald Eagles on the Channel Islands (MSRP 2002). Please refer to these two sources for more information. Although the Trustees acknowledge that bald eagles consume seabirds, they are a small percentage of an eagle's diet compared to fish. The Trustees do not believe that the presence of bald eagles will compromise the success of the proposed seabird restoration actions, though they anticipate that eagles will occasionally prey on seabirds. The success of the seabird restoration actions should increase seabird numbers on the Channel Islands, and as a result, sensitive species would be better able to withstand any predation pressure from bald eagles.

#### 9.5.8 Comments on "Restore Alcids to Santa Barbara Island"

*Comment: The Trustees should investigate the ecological linkages between introduced grasslands, mouse populations and barn owls [which could impact alcid populations] before investing in this action.*

*Source(s): J. Adams*

The Trustees recognize the importance of understanding the ecological links between introduced grasslands, mouse populations, and barn owls. The National Park Service is currently conducting studies on the mouse population and its potential impacts on seabirds. Studies on the barn owl population are also under consideration. The Trustees will evaluate the impacts of deer mice on the success of this action during the monitoring phase of the action. In addition, it is likely that Cassin's auklets are not as vulnerable to mouse depredation as Xantus's murrelets, since egg

neglect is negligible in Cassin's auklets. Auklets begin incubating their eggs immediately after laying, unlike murrelets, which leave their first egg unattended before laying their second, a practice that makes murrelet eggs more susceptible to predation.

*Comment: The capacity for auklets to breed successfully at Santa Barbara Island will depend on the distribution and availability of suitable prey resources in the area. The Trustees should also assess the prey resources off Santa Barbara Island before pursuing this action to ensure that adequate prey resources are available to support auklets.*

*Source(s): J. Adams*

The Trustees believe that the presence of nesting birds on the other nearby Channel Islands indicate that adequate prey is available to support auklets on Santa Barbara Island. Cassin's auklets are currently nesting successfully on Prince Island, San Miguel Island, Scorpion Rock, and Santa Cruz Island. In addition, Santa Barbara Island historically supported a population of over 5,000 pairs of auklets. Conducting a food availability study prior to implementing this action would be too costly given limited restoration funds as well as the Trustees' preference to spend funds on actual on-the-ground restoration activities rather than additional research. The Trustees believe that the proposed seabird restoration actions will provide long-term benefits to Cassin's auklets and Xantus's murrelets in the Southern California Bight.

*Comment: Social Attraction of birds to artificial nest sites does not imply restoration. For auklets, the Trustees are urged to pursue and evaluate additional criteria for interpreting/demonstrating restoration success including, comparisons of reproductive parameters and chick growth with auklets nesting at Scorpion Rock and Prince Island, adult survival rates, and nest site fidelity. It is also recommended that this action include an evaluation of the potential for this action to increase (or in the event of poor reproductive success due to food limitation or predation, decrease) the overall abundance of auklets. How do anticipated restoration actions and outcomes to the populations compare with "baseline conditions" had dumping not occurred?*

*Source(s): J. Adams*

The Trustees do not agree with the contention that this action does not constitute restoration. Compensatory restoration in the form of reestablishing a population that was originally extirpated from its historical habitat is a method commonly used in other CERCLA and oil spill cases where direct restoration is not always possible. The specifics of the monitoring plan for this action will be determined during project development and will include the parameters mentioned above. Accurate baseline population information does not exist for auklets on Santa Barbara Island; however, reproductive success and parameters from the restored colony on Santa Barbara Island will be compared with the results documented on other colonies within the Southern California Bight.

*Comment: Xantus's Murrelets are not presently limited by the availability of suitable nest sites. Xantus's Murrelets are currently recolonizing Anacapa Island following the removal of rats. The number of active nest sites, however, has shown a*

*long-term decline. Whereas there is available natural nest habitat, having murrelets occupy artificial nest sites does not constitute restoration.*

*Source(s): J. Adams*

The Trustees do not agree with the contention that this action does not constitute restoration. One possible theory concerning the cause of the recent decline in active nests is that the drought in the late 1980s and early 1990s affected nest site availability for Xantus's murrelets in the bush site sub-colonies. This action will restore bush nest sites on the upper bluffs of the islands and will maintain a portion of these sites during low-rain years in order to continue to provide healthy vegetative cover. The hope is that this action will provide suitable habitat in a new area, and thus draw birds away from lower-quality habitat (e.g., under plywood boards and across ladders). Higher-quality nest sites should result in increased productivity. Also, these nest sites will provide safer access to the nests by researchers, which in turn will result in more consistent and higher-quality monitoring for a larger percentage of birds. The Trustees believe that an increase in the number of murrelets nesting on Santa Barbara Island as well as their productivity does constitute restoration and will provide long-term benefits to Xantus's murrelets in the Southern California Bight.

*Comment: Plan should outline quantitative measures that can be used to demonstrate successful vegetation restoration.*

*Source(s): J. Adams*

The monitoring plan for this action will outline measures to document successful vegetation restoration. The evaluation of the action (Appendix D2) has been modified to reflect this.

*Comment: It is not clear what the benefits to the two species will be after the estimated five year action. Trustees should outline whether the artificial nest sites will be maintained or phased out after the project is determined successful.*

*Source(s): J. Adams*

This action will have an adaptive management plan. The status of the action and the artificial nest sites will be decided after reviewing the results and the status of the population on the island.

#### 9.5.9 Comments on "Restore Seabirds to Scorpion Rock"

*Comment: An important first step for the project is to reduce human disturbance at colony through signage and effective educational outreach actions.*

*Source(s): J. Adams*

Disturbance reduction and educational outreach are major components of this action.

*Comment: Erosion problems on island need to be stabilized.*

*Source(s): J. Adams*

Erosion control is a major component of this action.

*Comment: It should be recognized that at present Scorpion Rock is a somewhat ephemeral nesting colony for auklets. Auklets nested there during the cool*

*and productive years of 1999-2003. Reproductive success is likely to be lower and more variable than at principal colonies off San Miguel Island. None of the sites on the rock were occupied in 2004 and anomalous conditions may prevent auklets from nesting there this season. The trustees need to establish a restoration criterion that evaluates the success of this colony in the context of oceanographic conditions and availability of suitable prey resources.*

*Source(s): J. Adams*

Cassin's auklets were nesting on Scorpion Rock when the first nest boxes were established and have made some effort every year following that. Cassin's auklets suffered poor reproductive success in 2004, not just on Scorpion Rock but throughout the Southern California Bight. As a result, the Trustees do not feel that the Scorpion Rock colony is ephemeral, but do agree that the restoration success criteria (which will be identified when the monitoring plan is developed) should take into consideration the potential impacts oceanographic conditions and prey availability.

*Comment: Plan should outline quantitative measures that can be used to demonstrate successful vegetation restoration and erosion control.*

*Source(s): J. Adams*

The monitoring plan for this action will outline measures to document successful vegetation restoration and erosion control. The evaluation of the action (Appendix D4) has been modified to reflect this.

*Comment: Adding additional nest sites and then determining that the sites are used by seabirds does not necessarily constitute restoration.*

*Source(s): J. Adams*

The Trustees do not agree with the contention that this action does not constitute restoration. Increasing the number of birds nesting on the rock and their productivity will have significant impacts on the population.

*Comment: The Trustees should consider supporting longer term monitoring (> 5-yrs) of auklets at Scorpion Rock and Prince Island within the context of oceanographic assessments, to better understand and interpret restoration success.*

*Source(s): J. Adams*

The specifics of the monitoring plan will be determined during the development of the action-specific plan. The Trustees will take into consideration the potential impacts of oceanographic conditions. Auklet monitoring on Prince Island will be considered as part of the action "restore seabirds to San Miguel Island" (see Appendix D1).

## 9.5.10 Comments on “Restore Seabirds to Baja California Pacific Islands”

*Comment: Projects on Guadalupe Island should be funded regardless of the outcome of the NCI Feasibility Study.*

*Source(s): J. Adams*

All of the seabird restoration actions on the Baja California Pacific islands have a strong nexus to the Montrose case and would benefit seabirds injured by the contaminants of the case. However, because the Trustees have chosen to modify the preferred alternative to reserve \$6.2 million exclusively for bald eagle restoration, the balance of that money will no longer be available for seabird restoration, pending the results of the NCI Bald Eagle Feasibility Study. For this reason, two seabird actions, “restore seabirds to Baja California Pacific islands” (Guadalupe Island) and “restore ash storm-petrels to Anacapa Island,” may not be funded during this phase of restoration. However, the Trustees believe that the possibility of cost-sharing and the eventual allocation of a second round of funds in Phase 2 of restoration may result in the eventual implementation of these actions.

## 9.5.11 Comments on “Restore Ashy Storm-Petrels to Anacapa Island”

*Comment: The Trustees should reconsider the project to eradicate the introduced House Mouse from the Farallon Islands to effectively restore this species injured by chemical pollution in the SCB.*

*Source(s): J. Adams*

This idea did not rate as high as other seabird ideas primarily due to its location outside of the Southern California Bight. Other projects targeting ash storm-petrels received higher ratings in respect to nexus. Also, Luckenbach Trustee Council is considering the Farallon Islands project for funding.

*Comment: The Plan in its current form suggests that social attraction has been used successfully on this species; it is important to point out that this technique has only been used successfully to capture birds, but social attraction to nest sites has never been demonstrated. Social attraction with this species has never been demonstrated. Efforts to attract petrels to nest sites on the Farallon Islands have failed. Researchers have also found that only boxes that were installed within pre-existing nest sites were used by breeding individuals. Boxes installed in suitable nesting habitat failed. The Trustees are urged to consider support for ongoing petrel studies throughout the Channel Islands that are designed to evaluate efficacy and limitations at vocalization broadcasts, catch-per-unit effort, inter-island exchange, adult survival and population size.*

*Source(s): J. Adams*

The Trustees did not mean to indicate that social attraction has been used successfully to establish a nesting colony of ash storm-petrels, but instead that playbacks have been used successfully to capture ash storm-petrels in mist nets. The appendix has been modified to make this point clearer. However, social attraction has been used successfully to establish nesting

colonies of other species of petrels on islands in the Galapagos and off the coast of Maine. The Trustees will take the information learned from the Farallon Islands project into consideration when implementing the Anacapa Island action. Details of the monitoring plan for this action will be developed prior to implementation.

*Comment: The Trustees should examine disturbance issues impacting reproductive success of petrels in sea caves that are open to public.*

*Source(s): J. Adams*

The dry caves on Anacapa Island where petrels nest are already closed to public access. Disturbance issues in the caves of the Channel Islands National Park are the responsibility of the National Park Service.

*Comment: At present suitable nesting habitat for this species does not appear to be limiting. Furthermore, from a demographic perspective, increasing reproductive output for such a long-lived, late-maturing seabird with low lifetime reproductive output is not likely to enhance the population. More information is required to assess what limits sub-adult and adult survival (i.e., predation, attraction to artificial light, pollution, plastic ingestion, etc.).*

*Source(s): J. Adams*

Now that the introduced black rat has been removed from Anacapa Island, there is a great opportunity for the ash storm-petrel population to increase and expand into parts of the island that the species did not previously use due to the presence of rats. The birds may be reluctant to do so without the social cues provided by social attraction. Spreading the population to more than one or two islands greatly reduces the risk of catastrophic events (such as an oil spill or the unintended reintroduction of rats to the island) eliminating this rare and endemic population.