

MSRP PHASE 2 PROPOSED PROJECTS



MSRP projects proposed in the Phase 2 Restoration Plan are described below.

Restore Subtidal Reef and Kelp Forest

Habitat on the Palos Verdes Shelf MSRP proposes to restore critical fish habitat on the Palos Verdes Shelf. Kelp forests and rocky reefs are known to produce more fish than other habitat types and fish that have lower levels of DDT and PCB concentrations in their tissues. MSRP is proposing to build artificial reef modules in areas that have been impacted by sediment erosion along the coast. Kelp forests in this area have been impacted by the loss of urchin predators which resulted in an increase in urchins essentially wiping out kelp forests. For this project MSRP would partner with commercial urchin divers and local non-profit organizations to perform urchin barren control allowing for natural kelp recruitment and growth.

Monitor Bald Eagles on the Channel Islands

MSRP proposes to monitor Bald Eagles on the Channel Islands to determine if a self-sustaining population is feasible. The proposed monitoring program would continue to focus on breeding activities, investigation of diet, survival and contaminant analysis. The program would shift from extensive year-round monitoring to a more directed focus of understanding the eagle's annual population status.

Monitor the Recovery of Peregrine Falcons on the Channel Islands

MSRP proposes to conduct two additional comprehensive monitoring efforts on the Channel Islands during Phase 2. Biologists would monitor active Peregrine Falcon territories to determine their reproductive success and levels of DDT and PCBs will be measured from egg and blood samples.

Restore Seabirds to Santa Barbara Island and Scorpion Rock

MSRP proposes to continue and expand the restoration work on Santa Barbara Island and Scorpion Rock. On Santa Barbara Island, biologists would expand existing restoration sites and add new sites. If this project moved forward, MSRP would continue removal of non-native vegetation and planting of native plants on Scorpion Rock until native plants can fully establish and outcompete non-native plants. Biologists would also install nest boxes and social attraction devices on Santa Barbara Island and continue monitoring of seabirds at both areas.

Restore Ashy Storm-Petrels on the Channel Islands

MSRP identified projects on Anacapa and Santa Cruz Islands in Phase 1 but was unable to complete this work. If this project moved forward, biologists would continue to work on these projects in Phase 2 but also may expand to include restoration projects throughout the Channel Islands as appropriate. MSRP proposes to improve nesting habitat, install social attraction devices, install artificial nesting boxes, perform annual monitoring at nest sites, and perform contaminant analysis.

Reduce Seabird Disturbance on the Channel Islands

This proposed project will build upon on-going seabird disturbance reduction efforts that have been developed by other groups. Primarily this project would focus on developing and enforcing appropriate seabird colony protective measures, educating the public and specific user groups about protective measures, and evaluating program effectiveness for integration into statewide seabird management programs.



Ashy Storm-Petrel using marine debris for nest. (Darrell Whitworth, CIES)



Diver collecting urchins during removal project. (David Witting, NOAA)

MSRP PROGRAM OVERVIEW

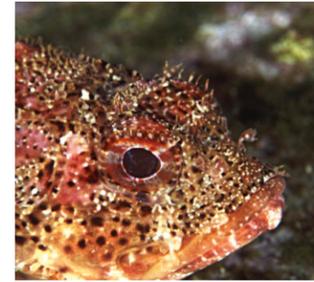


Program History

From the late 1940s to the early 1970s, millions of pounds of DDTs and PCBs were discharged from industrial sources through a wastewater outfall into the ocean near Los Angeles. Large quantities of these chemicals remain in the marine environment and continue to harm birds and impair fishing in the Southern California Bight (see map).

Throughout the U.S., DDTs in the food of bald eagles and peregrine falcons have caused these birds to lay thin-shelled eggs that desiccate or break during incubation. Bald eagles reintroduced to Catalina Island have had difficulty hatching their eggs without human assistance. In addition, some species of seabirds in the Bight exhibited high levels of DDTs. For certain species of fish contaminated with high levels of DDTs and PCBs near Los Angeles, the State of California has issued fish consumption advisories. The State has also banned commercial fishing for white croaker near the Palos Verdes Peninsula.

The State and Federal governments initiated action against Montrose Chemical Corporation and the other polluters responsible for the injuries. In December 2001, a final settlement was signed, ending ten years of litigation.



California Scorpionfish (David Witting, NOAA)



Bald eagle (Lee Emery, USFWS)



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Cleanup and Restoration

Following Superfund law, the funds are being used for two different kinds of activities:

1. The U.S. Environmental Protection Agency (EPA) and the California Department of Toxic Substances Control will use a share of the funds to reduce the exposure of people and wildlife to DDTs and PCBs. For example, these agencies are considering several remediation, or "cleanup," options, and are conducting additional efforts to prevent commercial catch of and reduce public consumption of contaminated fish. For more information, contact EPA at (800) 231-3075.

2. The Natural Resource Trustees, through the Montrose Settlements Restoration Program (MSRP), will use approximately \$38 million to restore natural resources harmed by the DDTs and PCBs.

Who are the Natural Resource Trustees?

The Natural Resource Trustees are a group of six federal and state resource agencies that together administer the Montrose Settlements Restoration Program. These agencies are:

- National Oceanic and Atmospheric Administration;
- National Park Service;
- U.S. Fish and Wildlife Service;
- California Department of Fish and Game;
- California Department of Parks and Recreation; and
- California State Lands Commission.

MSRP PHASE 1 RESTORATION HIGHLIGHTS

MSRP Phase 1 restoration projects are in various stages of implementation. The following are highlights for each project that was proposed in the Phase 1 Restoration Plan.

Restore Nesting Habitat for Seabirds on the Channel Islands

MSRP is restoring nesting seabird habitat on the Channel Islands, specifically on **Scorpion** and **Orizaba Rocks, Santa Barbara, Santa Cruz, and San Nicolas Islands**. Seabird restoration projects include non-native plant and animal removal, revegetation of native plants, and social attraction. Since 2007, MSRP planted **20,000+ native plants** with help from volunteers, installed 50+ artificial nests, removed feral cats from San Nicolas Island, and completed several years of seabird and oceanographic monitoring surveys among the islands. In 2011, biologists discovered nine Cassin's Auklets seabirds nesting in newly restored habitat on Santa Barbara Island. Seabird nesting habitat restoration work will begin on several Baja California Pacific Islands in 2012.



Cassin's Auklet chick during banding. (Laurie Harvey, NPS)

Xantus's Murrelet chicks in nest. (Darrel Whitworth, CIES)

Restore Bald Eagles to the Channel Islands

MSRP implemented a feasibility study to determine whether the northern Channel Islands could support a self-sustaining population of Bald Eagles. Institute for Wildlife Studies biologists successfully released 61 eagles on Santa Cruz Island and initiated a comprehensive monitoring program. The first natural hatching of a Bald Eagle in 2006 on Santa Cruz Island was a milestone for the study. Since the first natural hatching, biologists have continued to observe a high nesting success rate among the Channel Island Bald Eagles with breeding occurring on four of eight Channel Islands. Approximately **65 eagles live among the Channel Islands** and new pairs are expected to establish breeding territories across the Channel Islands.

Outreach Focus: MSRP Gets High-Tech

Experience California native wildlife in 3-D by visiting an MSRP kiosk at three different science centers and aquaria. Watch the underwater world of the wetlands in Huntington Beach by logging onto the MSRP fish webcam located at the Wetland & Wildlife Care Center. View Bald Eagles and their chicks live in their nests on the Channel Islands Live Bald Eagle webcam broadcasting from Santa Cruz Island. In recent years, MSRP has been incorporating technology into public outreach activities to engage the public in important restoration projects taking place throughout Southern California.

Check out MSRP's Live Webcams

www.montrosere restoration.gov

Visit an MSRP Kiosk

- SEA Lab
<http://www.lacorps.org/sealab.php>
- Cabrillo Marine Aquarium
<http://www.cabrillomarineaquarium.org>
- California Science Center
<http://www.californiasciencecenter.org>



Family using MSRP kiosk at California Science Center. (Gabrielle Dorr, NOAA)

MSRP PHASE 1 RESTORATION HIGHLIGHTS



Restore Recreational Fishing in Southern California

MSRP is restoring recreational fishing by providing information to the public about fish contamination and by improving access to a diversity of healthy fish species. MSRP, along with partners, created several popular outreach products including a "Common Subsistence and Sport Fish of Southern California" identification card with safe fishing tips and the "What's the Catch?" comic book, both in three different languages, which are distributed to the public every year. Outreach mini-grants awarded to youth fishing organizations by MSRP are spreading the word about safe fishing and how to avoid "Do Not Consume" fish species. In 2012, MSRP hopes to build artificial reef modules along the Belmont Pier in Long Beach, California, that will attract a greater diversity of fish species that are available for consumption.

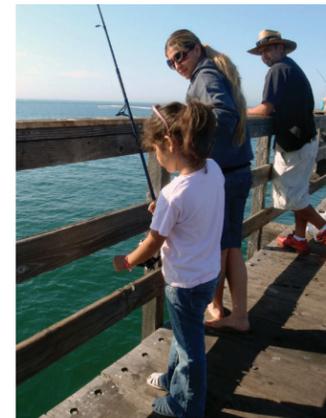
Monitor Peregrine Falcons on the Channel Islands

In 2007, a comprehensive Peregrine Falcon monitoring effort across all eight of the Channel Islands was completed. Biologists found 25 active territories and 16 pairs successfully hatched eggs that produced 35 young. One of the highlights of the 2007 survey was the documentation of a successful breeding pair on Santa Barbara Island. This event was the first documented breeding on the island in over 50 years! MSRP is planning to conduct a second monitoring survey in 2013.



Aerial view of Huntington Beach Wetlands restoration. (Earthcam, NOAA)

Peregrine Falcon chicks in nest after banding. (Brian Latta, SCPBRG)



Divers working in kelp forest. (David Witting, NOAA)

Young girl during youth fishing derby. (Gabrielle Dorr, NOAA)