



Montrose Settlements Restoration Program: Restoring natural resources harmed by DDTs and PCBs.

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 at White Point, near Los Angeles (see map). Large quantities of these chemicals remain and continue to harm birds and fishing in the Southern California Bight.

In 1990, the State and Federal governments initiated legal action against the Montrose Chemical Corporation and the other polluters responsible. In December 2000 the final settlement was signed, ending ten years of litigation. Approximately \$30 million of this settlement are available for restoration to address the natural resource injuries and the public's lost use of resources.

A group of six Federal and State resource agencies share responsibility for this restoration. These agencies are:

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

Collectively, these agencies are called the Natural Resource Trustees, and administer the Montrose Settlements Restoration

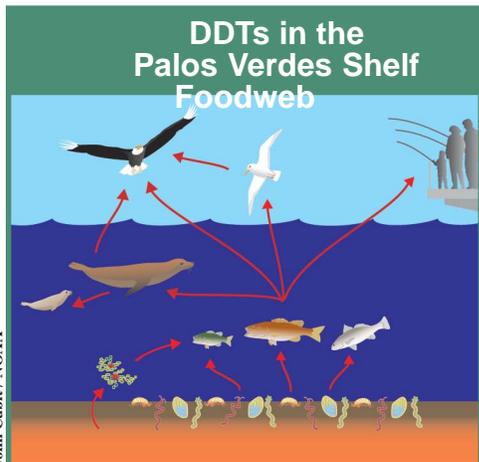
Program, through which they are identifying and planning possible restoration actions.

As required by Superfund law, the Trustees must use the settlement monies to restore natural resources that were harmed by chemicals at issue in this case, and must prepare a restoration plan subject to public review.

Initially, the Trustees undertook two types of activities: outreach to the public to solicit restoration ideas, and data studies to gather additional information that would be used in restoration planning.

Public workshops were held in 2002 and 2003 to help identify potential restoration projects. Close to 100 ideas were put forth by outside organizations and individuals, as well as by MSRP staff.

Critical data gathering included a collaboration with the U.S. Environmental Protection Agency (EPA) on a broad scale study of contaminant levels in marine fish, as well as a survey of local anglers to assess their fishing practices and awareness of contamination issues in the local area. The Trustees also initiated a study to determine the feasibility of reestablishing bald eagles in the Channel Islands, even though the DDTs and PCBs that affect their reproduction still persist today. The status of each of these preliminary studies, as well as the restoration ideas submitted, is summarized on page 3 of this Update.



John Cubit / NOAA

Above: DDTs and PCBs in the sediments of the ocean filter up through the foodweb, eventually affecting birds and humans.

Right: These chemical contaminants continue to harm birds and impair fishing in the Southern California Bight.



MSRP 2004

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Trustees Complete Tier 1 Screening of Restoration Ideas

Tier 1 Screening Process

The Trustees have completed a first level (Tier 1) evaluation of restoration ideas gathered thus far. First, the Trustees organized the ideas according to the natural resources and services they would address:

- Bald Eagles
- Peregrine Falcons
- Seabirds and
- Fishing and Fish Habitat.

The Trustees then used four criteria to rate the projects against others within each of these resource categories. These criteria were:

- **Nexus:** relationship to the DDT and PCB injuries of the Montrose case.
- **Feasibility:** likelihood that potential benefits will be achieved in actuality, based on technical, operational and regulatory considerations.
- **Benefits to injured resources or lost services:** effectiveness in restoring the specific injured natural resources and lost services identified in the final Montrose consent decree.
- **Ecosystem Benefits:** degree to which actions result in systemic changes having broad-scale benefits.

Tier 1 was not simply a pass/no pass evaluation; sometimes the most promising elements of two or more submitted ideas were combined into a new approach. The outcome of Tier 1 is thus a refined list of potential restoration actions – some are specific projects, and others remain broader conceptual approaches. Seventeen restoration actions and approaches identified in the table to the right are now being subjected to a more rigorous analysis (Tier 2).

In addition to the four criteria above, the Trustees are also considering environmental acceptability and cost at the Tier 2 stage. Upon completion of this evaluation, the Trustees will put forth a set of comprehensive alternatives including a preferred alternative. The MSRP Draft Restoration Plan and EIS/ EIR will be circulated for public review in early 2005.

For More Information

The Trustees would like to thank all those who contributed their time, effort and ideas to these beginning stages of restoration planning.

The full Record of Tier 1 (Screening) Review, including procedure, evaluations and results are available through MSRP by contacting:

Montrose Settlements Restoration Program
501 W. Ocean Blvd. Suite 4470
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The document is currently being prepared for the Administrative Record and will soon be available online at www.montroserestoration.gov.

Restoration Ideas Considered in Tier 1 and Restoration Ideas Undergoing Tier 2 Evaluation

Bald Eagle Restoration Ideas	Pass to Tier 2
1. Restore Bald Eagles on Catalina Island	✓
2. Restore Bald Eagles on the Northern Channel Islands	✓
3. Restore Bald Eagles on the Mainland	
Peregrine Falcon Restoration Ideas	Pass to Tier 2
1. Restore Peregrine Falcons on the Southern Channel Islands	✓
2. Restore Peregrine Falcons on Baja California Peninsula Islands	✓
3. Acquire and Enhance Peregrine Falcon Habitat on the Palos Verdes Peninsula	
4. Create Peregrine Falcon Management Group	
5. Enhance Foraging Habitat for Peregrine Falcons at Ken Malloy Harbor Regional Park	
Seabird Restoration Ideas	Pass to Tier 2
1. Restore Seabirds on San Miguel Island	✓
2. Restore Alcids on Santa Barbara Island	✓
3. Restore Seabirds on San Nicolas Island	✓
4. Restore Seabird Habitat on Scorpion Rock	✓
5. Restore Seabirds on Baja California Peninsula Islands	✓
6. Create/Enhance/Protect Brown Pelican Roost Habitat	✓
7. Implement Entanglement Reduction and Outreach Program to Protect Seabird Populations	✓
8. Restore Ashy Storm-petrels on Anacapa Island	✓
9. Restore Ashy Storm-petrels on Southeast Farallon Island	
10. Create Mainland Nesting Habitat for Colonial Seabirds	
11. Create Cormorant Nesting Platforms	
12. Fund Brown Pelican Patrol/Enforcement Position	
13. Enhance Nesting Habitat for Shearwaters and Fulmars in New Zealand	
14. Reintroduce Tufted Puffins to Prince Island	
15. Purchase Bird Rock off Santa Catalina Island	
16. Create GIS Atlas of Brown Pelican Roost Sites	
17. Enhance Nesting Habitat for Grebes and Loons in Northern California	
18. Attract Common Murres to Prince Island	
19. Attract Brown Pelicans to Prince Island and Scorpion Rock	
Fishing and Fish Habitat Restoration Ideas	Pass to Tier 2
1. Construct Artificial Reefs	✓
2. Provide Public Information that Promotes Wholesome Fishing and Fish Consumption	✓
3. Restore Wetlands (several potential locations)	✓
4. Augment Funds for Implementing Marine Protected Areas (MPAs) in the Northern Channel Islands	✓
5. Operate Fishing Barge(s) Over Existing or Constructed Reef(s)	*
6. Create Protected Shallow-water Habitat	
7. Supplement Near-shore Fisheries in Contaminated Areas with Clean, Hatchery-raised Fish	
8. Spotted Sand Bass Hatchery Program	
9. Restore Depleted Kelp Beds of Malibu and Palos Verdes	*
10. Convert Decommissioned Oil Platforms to Artificial Reefs	
11. Establish New MPAs within the Palos Verdes Shelf Region	*
12. Restore Overgrazed Seashore in Abalone Cove	
13. Provide Transportation for Anglers to Areas with "Clean" Fish	
14. Improve Public Amenities and Fishing Access at Marina del Rey, White Point Beach, Pt. Vicente and Pt. Fermin	*
15. Giant Sea Bass Hatchery Program	
16. Restore White Abalone	
17. Restore Algae (Kelp) on the Palos Verdes Coast	*
18. Protect and Restore Ormond Beach Wetlands	
19. Clean Up Consolidated Slip	
20. Contribute to Proposed Wilmington Leeward Bay Promenade, Marina and Wetlands Redevelopment	
21. White Croaker Commercial Market Certification Program	

* Elements of these projects were combined with projects that passed to Tier 2

Fish Contamination Survey

From Fall 2002 to Spring 2004, MSRP and EPA collected over 3,000 fish from 28 locations in the Southern California coastal waters, representing a wide variety of fish often caught by local recreational and commercial anglers. Approximately 900 are currently being analyzed for DDTs, PCBs, dieldrin, chlordane, and mercury, to provide a comprehensive assessment of current levels of contamination across the different species and locations.

The state of the art laboratory analysis and quality assurance program, driven by the exacting standards of MSRP and EPA, have required additional time and re-analysis of fish samples. As a result, the final data will provide an uncompromised assessment of fish contamination in the region.

This data will in turn be used in planning restoration projects to create better fishing environments, and to enhance the effectiveness of public outreach and education programs. The data will also be used by the California Office of Environmental Health Hazard Assessment and Department of Fish and Game to update existing fish consumption advisories, bag limits, and the commercial catch ban on white croaker. Finally, EPA will use the data to evaluate current and future risks and potential cleanup action for the Palos Verdes Shelf Superfund investigation.

Angler Survey

In 2002 and 2003, the MSRP and EPA interviewed 2,441 anglers at numerous sites from Malibu to Newport Beach to gather information on fishing and fish consumption practices from people who fish in coastal waters in Los Angeles and Orange Counties. The responses will be used to fill gaps in information that has not been the focus of other recreational fishing studies, such as:

- Ethnic and language issues, current awareness of fishing advisories and how anglers obtain that awareness;
- Catch preferences, parts of the fish consumed, and different ways people prepare fish for eating;
- Fishing preferences (types of fish and locations) that may assist in planning restoration projects to increase the availability of opportunities to fish for cleaner fish.

The resulting database will be used for planning future restoration and public outreach efforts.

Bald Eagle Feasibility Study

Levels of DDTs and PCBs in the Southern California Bight have declined since the Montrose discharge was controlled in the 1970s, but persist at levels that continue to cause reproductive problems in bald eagles reintroduced onto Catalina Island in the 1980s. Since bald eagles have not naturally recolonized other Channel Islands, the Trustees initiated a feasibility study in 2002 to determine whether bald eagles reintroduced to the Northern Channel Islands might have greater reproductive success than the Catalina Island birds.

To date, 32 bald eagle chicks have been released on Santa Cruz Island, including nine this summer. Four more chicks are slated to be released this fall.

The 22 remaining birds have dispersed among the Northern Channel Islands and inhabit not only Santa Cruz, but San Miguel, Santa Rosa and Anacapa Islands as well. An additional three bald eagles have migrated to Santa Cruz Island from Catalina Island.

This summer, biologists recaptured three eagles to collect blood and feather samples, which will be analyzed to determine contaminant levels in the birds. When the Northern Channel Island eagles begin to reproduce, biologists will monitor their nests to determine if the eagles are capable of hatching eggs in the wild. Since it takes as many as five years for bald eagles to reach reproductive age, the Trustees anticipate having initial results of these breeding attempts around 2007.

Peregrine Falcon Monitoring

A 1991 survey showed that peregrine falcons were returning to certain Northern Channel Islands, after being completely extirpated from the area just before the dumping of DDTs from the Montrose facility ended. The peregrines have successfully hatched offspring, although studies have not been conducted to examine if any contamination-related reproductive problems exist in these birds.

In 2004, MSRP surveyed Catalina Island to determine whether peregrine falcons were beginning to re-colonize the Southern Channel Islands as well. Two pairs of peregrine falcons were observed nesting on Catalina Island, although no successful hatching of chicks has been observed.



Milena Viljoen / MSRP

Biologists tag juvenile bald eagles before placing them in hack towers on Santa Cruz Island.



Ken Nielsen / Sea Ventures

Over 3,000 fish representing 23 species or species groups were collected for the fish contamination survey.



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UPDATE 2004

Get your MSRP updates electronically!

To receive MSRP updates electronically, email msrp@noaa.gov and include "Mailing List" in the subject line. You can also call (866) 795-7786 and leave a message to sign up for the mailing list or update your contact information.

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Fish Contamination Survey Up-

Angler Survey Update

Bald Eagle Feasibility Study Update

Peregrine Falcon Monitoring Update

Dave Witting / MSRP

Get Involved

DDTs and PCBs dumped in the ocean continue to harm natural resources in the Southern California Bight. Now that lawsuits against the responsible parties have been settled, you can help us select the best restoration projects.

A new MSRP website with restoration planning updates, downloadable versions of our outreach publications, case history and the administrative record is now available at: www.montroserestoration.gov.

You can also call (866) 795-7786 or e-mail us at msrp@noaa.gov to be placed on a list to receive notices of upcoming events and document releases.

For more information on EPA's sediment contamination work, visit their website at www.epa.gov/region9/features/pvshelf, or call (800) 231-3075. You can learn more about the Fish Contamination and Education Collaborative by visiting www.pvshelf.org.

Montrose Settlements Restoration Program and the EPA

The Montrose Settlements Restoration Program (MSRP) is related to but separate from the U.S. Environmental Protection Agency (EPA) Superfund cleanup. EPA is currently focusing on containing the DDTs and PCBs that remain in the sediment along the Palos Verdes Shelf, in an effort to reduce present and future risks to human health and the environment.

EPA has conducted a pilot capping project, in which areas of contaminated sediment were covered with a thick layer of clean sediment. The data collected will be used to decide if a full-scale capping project should be implemented.

EPA is also implementing the Fish Contamination and Education Collaborative (www.pvsfish.org), a participatory outreach and education program bringing together

government agencies and local community groups to address health risks posed by fish contamination in the Palos Verdes Shelf area. As a contributor, MSRP has worked with FCEC to create and distribute outreach tools that promote understanding of the fish contamination issues that affect the ethnically diverse populations in the area.

To learn more about EPA's Palos Verdes Shelf work, visit www.epa.gov/region9/features/pvshelf, or call (800) 231-3075.

Available outreach materials include:

- **"Fishing Resources in Southern California,"** a fish identification card to help anglers identify the fish they catch.



- **"Protect Your Health!"** an FCEC guide to fish advisories in the Palos Verdes Shelf area, available in 14 languages.

- **"There's Something Fishy Going On."** MSRP and Cabrillo Aquarium are developing an educational comic book for kids and parents alike. The story follows two children and their animal friends as they learn about fish contamination in the Palos Verdes Shelf area, and will be ready for distribution in 2005.

For copies of these publications, please contact the MSRP Outreach Coordinator at:

Montrose Settlements Restoration Program
msrp@noaa.gov,
(866) 795-7786, or (562) 980-3236.