



As a steward of our nation's coastal and marine environments, NOAA addresses immediate and long-term environmental threats through its Office of Response and Restoration (OR&R). Scientists are on call around-the-clock to provide the U.S. Coast Guard and other emergency responders with critical information to help minimize environmental damage caused by oil and hazardous chemical spills. Environmental experts assess ecosystems compromised by historic or ongoing contamination and work with other organizations to conduct remediation, restoration, and monitoring of critical natural resources.

Protecting and Restoring California's Coastal and Marine Areas



California central coast elephant seals,
Photo courtesy of Maud Walsh

NOAA trust resources in California encompass 1,100 miles of coastline, including varied habitats that support many important fisheries and marine mammals. However, releases of hazardous chemicals from industrial and municipal sources have degraded habitat quality and contaminated fish and shellfish. The state map on the reverse page shows key response and restoration activities in the past year.

Emergency Response

Damaged vessels transiting California waters may release oil and other chemicals that damage coastal ecosystems. NOAA is working with state, local, and industry planners, responders, and resource experts to identify "Places of Refuge" where vessels can be safely and efficiently contained, assessed, stabilized, and repaired, and large spills can be prevented.

On November 7, 2007, the container ship M/V *Cosco Busan* struck the Bay Bridge in San Francisco Bay. A 100-foot gash in the hull of the vessel caused the release of an estimated 58,000 gallons of fuel oil into the water. OR&R provided scientific support for the incident response.



During the *Cosco Busan* oil spill, OR&R deployed seven people to the spill site to carry out overflights, coordinate beach surveys, develop cleanup standards and protocols, evaluate risks and effects to natural resources, and otherwise support the Federal On-Scene Coordinator. In addition, NOAA provided four technical experts in trajectory modeling, toxicity assessment, and other scientific specialties to support the response seven days a week from Seattle.

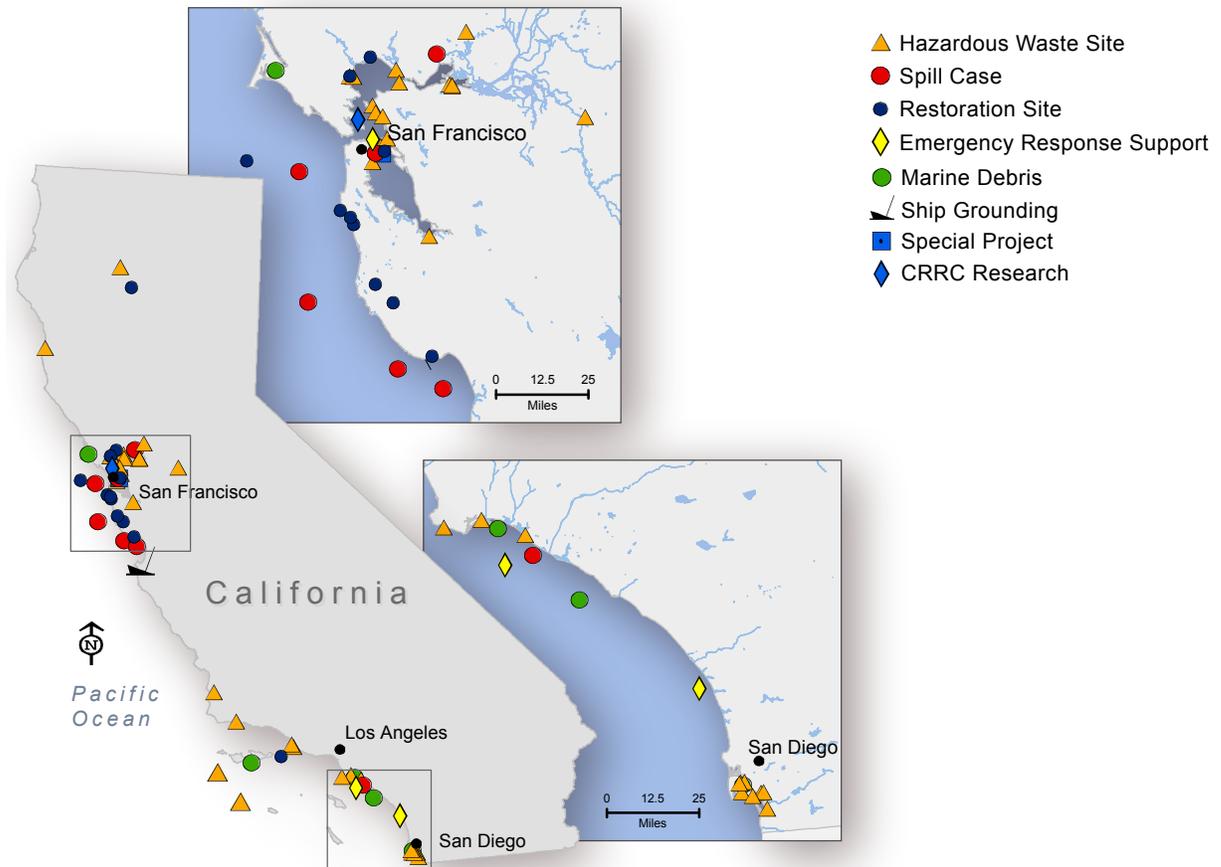
NOAA was aided in its response to this spill by a major field exercise called NOAA Safe Seas 2006, conducted with U.S. Coast Guard, State of California, and Department of the Interior in the San Francisco Bay area. The Safe Seas 2006 exercise allowed OR&R to train hundreds of regional staff and Beach Watch volunteers in various aspects of oil spill response and to test the response protocols that would be used for a real spill. Continuous training, improvement of our capabilities, maintenance of our capacity, and investments in high priority, response-related research and development efforts ensure that the nation's response to an incident like the *Cosco Busan* is effective.

Assessment and Restoration

From the late 1940s to the early 1970s, the Montrose Chemical Corporation discharged millions of pounds of DDT and PCBs onto the Palos Verdes Shelf off the Southern California coast. These hazardous chemicals persist in the environment and continue to affect marine life and birds in Southern California. NOAA and other natural resource trustees formed the Montrose Settlements Restoration Program to gather information on fish contamination, fishing practices, and the potential for bald eagle and peregrine falcon restoration in the Channel Islands. The Program plans to restore 180 acres of tidal wetlands for fish nursery habitat.



Montrose Settlement
Restoration Program, Palos
Verdes



Marine Debris

NOAA worked with the Cordell Bank National Marine Sanctuary to assess marine debris in the Cordell Bank, Gulf of the Farallones, and the Monterey Bay National Marine Sanctuary. The information gathered from at-sea monitoring is being used in a Plastic Pollution Prevention Education Program to assist coastal cleanup efforts and increase awareness of the critical need to prevent plastic marine pollution.

Research

NOAA collaborates with other federal, state, and local programs to develop innovative approaches to protecting marine and estuarine environments through research and synthesis of information. The Coastal Response Research Center (CRRC) brings together the resources of a research-oriented university and the field expertise of OR&R to conduct and oversee basic and applied research, conduct outreach, and encourage strategic partnerships in spill response, assessment, and restoration.

NOAA's Office of Response and Restoration—Protecting our Coastal Environment

**For further information about NOAA's Office of Response and Restoration,
please call (301) 713-2989 or visit our Web site at
response.restoration.noaa.gov**

