

# Natural Resource Damage Assessment and Restoration Planning for the *Cosco Busan* Oil Spill: UPDATE

October 2008

State and federal trustee agencies have been assessing the ecological injuries and impacts to human activities caused by the *Cosco Busan* oil spill. This process is known as natural resource damage assessment (NRDA). The goal is to quantify injuries to wildlife, habitat, and lost uses of those resources, and then determine how to best restore the resources and compensate for the losses. This process is separate from other legal claims, such as claims for reimbursement by private parties.



The Trustees are currently evaluating a proposed restoration project for eelgrass at Keil Cove.

## Preliminary Results

- **Birds:** 1,084 collected alive (418 of those rehabilitated and released), 1,859 collected dead, hundreds observed oiled but not captured. Total mortality estimation, taking into account birds missed and scavenged, and dead birds not related to the spill, is on-going. Recovery times will vary across species.
- **Mammals:** Very few mammals directly impacted; reproduction of harbor seals appears normal.
- **Fish:** Herring eggs collected in the spill zone (in Marin County inside the Bay) showed abnormalities that would lead to death, while those collected outside the spill zone were largely normal. The cause of the abnormalities and whether they are related to the spill is still under investigation, as well as the potential lost contribution to the overall Bay population. Field surveys found the total number of herring produced throughout the Bay was within the range observed over the past three decades.
- **Shoreline habitats:** The Trustees currently estimate that 56 miles of *rocky intertidal* coastline (including rip-rap), 52 miles of *sandy beach* coastline, 10 miles of *saltmarsh* coastline, and several hundred acres of intertidal *eelgrass beds* were oiled, although 64% of the total area was very light oiling. Recovery times will vary across habitats and degree of oiling, but are generally expected to be from one to five years.
- **Human uses:** We are continuing to quantify the impacts to various recreational activities.

## Next Steps

Following quantification of injuries, the Trustees will host public meetings presenting the results and soliciting more restoration project ideas. After that, they will detail the injuries and propose specific restoration projects in a Draft Damage Assessment and Restoration Plan. Following public comment and final review, a final plan will be issued for implementation.

## Trustees

California Department of Fish and Game  
California State Lands Commission  
United States Fish and Wildlife Service  
National Park Service  
Bureau of Land Management  
National Oceanic and Atmospheric Administration

## Contacts

Greg Baker: [greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)  
(650) 329-5048  
Al Donner: [Al\\_Donner@fws.gov](mailto:Al_Donner@fws.gov)  
(916) 414-6566  
Steve Hampton: [shampton@ospr.dfg.ca.gov](mailto:shampton@ospr.dfg.ca.gov)  
(916) 323-4724

## Websites

[dfg.ca.gov/ospr/spill/nrda/nrda\\_cosco-busan.html](http://dfg.ca.gov/ospr/spill/nrda/nrda_cosco-busan.html)  
[darrp.noaa.gov/southwest/cosco/index.html](http://darrp.noaa.gov/southwest/cosco/index.html)  
[www.fws.gov/contaminants/Issues/OilSpill.cfm](http://www.fws.gov/contaminants/Issues/OilSpill.cfm)

