

Restoration of Injured Natural Resources

An oil spill or hazardous substance release can devastate coastal and marine species and habitat. Through its Damage Assessment and Restoration Program (DARP), the National Oceanic and Atmospheric Administration (NOAA) acts as a trustee on behalf of the public to restore natural resources injured by these incidents.

What are injured resources?

Oil and hazardous substance releases can harm natural resources in a number of ways. The most immediate and visible impacts may be oiled beaches and injured or dead organisms—such as fish, lobsters, birds, wetland plants, and seagrasses.

Other immediate impacts may not be readily apparent. Nurseries for fish or nesting sites for birds and turtles may be destroyed, and birds and other wildlife may become ill from eating contaminated food.

Some impacts may not show up for weeks, months, or even years. Wetlands may slowly be destroyed several months after an incident, coral reefs may continue to erode and be more susceptible to disease, and fish may be unable to reproduce.

A spill or release may also diminish the services that natural resources provide, which include human services (e.g., fishing, boating, beachgoing, and wildlife viewing) and ecological services (e.g., providing habitat, nutrient cycling, and energy transfer through food webs).

As a trustee, NOAA first identifies the injuries to coastal and marine resources and then restores the resources and their services.

What is restoration?

DARP and its cotrustees ensure that restoration projects fulfill the following goals:

1. Return the injured resources to the condition they would have been in had

the incident not occurred (primary restoration). Trustees take actions to accelerate the recovery of the injured resources, such as reconstructing physical habitat that was destroyed.

2. Address the losses from the date of injury until recovery is completed (compensatory restoration). While a resource is impaired, it is unable to provide services on which other parts of the ecosystem and the public rely. Trustees ensure that restoration projects address the period from injury until recovery.

For example, to address injuries to an oiled wetland, trustees will consider restoration projects that—

- Accelerate the recovery of the marsh to the condition it would have been in had the spill not occurred.
- Compensate for lost recreational use of the marsh, such as hunting and fishing.
- Compensate for lost ecological services, such as critical habitat and nutrient cycling, until the marsh is restored.

How long does restoration take?

There are many factors that affect how quickly restoration actions can be implemented and how fast recovery can occur, including the type of resource that was injured; the time of year it was injured; and the type, amount, and duration of the oil spilled or hazardous substance released. In some circumstances, natural recovery may be sufficient to restore resources. In other instances, active restoration efforts may be necessary.



How has restoration worked?

DARP has generated more than \$300 million since 1990 for restoration projects throughout the nation. This money has been used to improve wetlands, restore bird and other wildlife populations, create reefs for fish and lobster habitats, improve fishing access sites, and restore salmon streams.

NOAA acts as a trustee on behalf of the public to restore coastal and marine resources injured by oil spills and hazardous substance releases. To learn more, please contact—

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