

DARRP



M/T *Athos I* Delaware River Oil Spill Restoration

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) acts as a trustee to protect and restore natural resources injured by releases from waste sites, oil spills, and ship groundings.

Spill History

On November 26, 2004, the M/T *Athos I*, a 750-foot tanker, hit submerged objects in the Delaware River near Philadelphia, spilling about 265,000 gallons of crude oil into the River and nearby tributaries.



Three days after the initial release, oil sheen can still be seen in the Delaware River.

Under the Oil Pollution Act, state and federal agencies serve as natural resource trustees to assess and restore natural resources injured by an oil spill and to compensate for lost services, such as fishing or boating.



Heavy oiling along the Tinicum Island shoreline.

Natural resource trustees for *Athos*:

- National Oceanic and Atmospheric Administration
- U.S. Fish and Wildlife Service
- Delaware
- New Jersey
- Pennsylvania

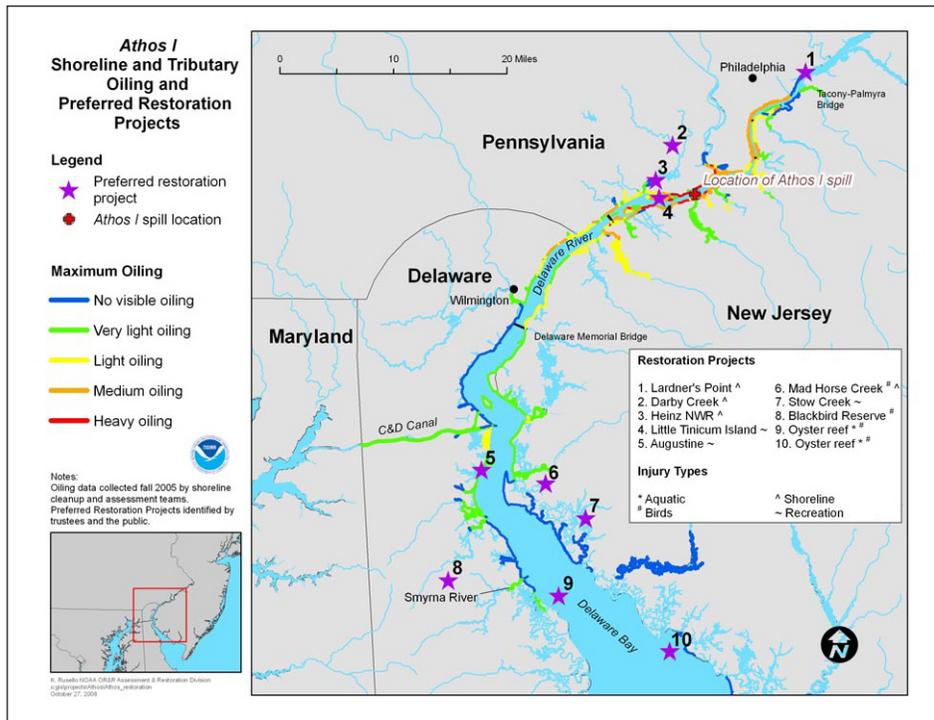
Injuries

Injuries from the spill included:

- 3,628 acres of shoreline
- 11,869 birds
- 412 acres of aquatic habitat
- 41,709 recreational trips affected

Identifying Preferred Restoration Projects

Trustees solicited restoration project ideas from government, public, and non-governmental organizations familiar with the Delaware River system. The trustees then vetted these ideas through evaluation criteria, identifying nine preferred restoration projects. These preferred projects will soon go through a public review process.



Ecological Projects

Habitat Restoration at Blackbird Reserve Wildlife Area, DE

Addressing Injuries to: Birds and wildlife

Project: Excavating two shallow wetland ponds; converting 16 acres of farmland to pasture; establishing 24 acres of food plots for migratory geese by modifying existing agricultural practices



Rob Hossler, Wildlife Program Manager with the Delaware Division of Fish and Wildlife, discusses details of the Blackbird Reserve project.

Total Acreage: 41.8

Ecological Benefits: Providing resting and foraging areas for migratory geese

Economic Benefits: Wildlife viewing, preservation of open space, hunting

Freshwater Tidal Wetland Restoration at John Heinz National Wildlife Refuge, PA

Addressing Injuries to: Tributary habitat

Project: Creating a series of tidally-connected channels, shallow pools, and fringing shrub/scrub wetlands to restore 7 acres of freshwater tidal wetland

Total Acreage: Restoring 7 acres will benefit 56 acres

Ecological Benefits: Restored tidal exchange, wildlife habitat enhancement

Economic Benefits: Wildlife viewing, small boat recreation, education

Oyster Reef Creation, DE and NJ

Addressing Injuries to: Aquatic resources and birds and wildlife

Project: Creating oyster reefs in the Delaware River through direct placement and recruitment and placement of bushels of spat

Total Acreage: 78

Ecological Benefits: Enhances benthic habitat, benefits reef organisms, improves water quality

Economic Benefits: Oyster harvesting is expected 5 years after shell placement, boost to the local economy during construction



Looking over berm vegetation into the marsh at John Heinz National Wildlife Refuge.



Kent Park Dam along Darby Creek.

Dam Removals and Stream Habitat Restoration, Darby Creek, PA

External Partner: American Rivers

Addressing Injuries to: Tributary habitat



The most downstream Darby Creek dam.

Project: Removing three dams and a remnant bridge pier; restoring riparian and in-stream habitat 1,000 feet upstream and downstream of each obstruction

Total Acreage: 2.6 miles of river habitat will open up to anadromous fish such as

alewife, striped bass, and shad; approximately 10 acres will be restored along the shoreline

Ecological Benefits: Restoring tributary habitat will improve creek health, and provide anadromous fish habitat

Economic Benefits: Fishing, educational, recreational, flood protection, boost to the local economy during construction



Concrete shoreline at Lardner's Point.

Marsh, Meadow, and Grassland Restoration, Mad Horse Creek Wildlife Management Area, NJ

Addressing Injuries to: Birds and wildlife and shoreline habitat

Project: Restoring 62.5 acres of degraded marsh, and creating 35 acres of wet meadow and 100 acres of grassland

Total Acreage: 197.5

Ecological Benefits: Food, roosting, and nesting habitat for birds

Economic Benefits: Wildlife viewing, hunting, boost to the local economy during construction



Mad Horse Creek wetlands and creek area. Phragmites (foreground) can be found throughout the site.

Shoreline Restoration, Lardner's Point, Philadelphia, PA

External Partners: Delaware River City Corporation, Pennsylvania Environmental Council, Fairmount Park Commission

Addressing Injuries to: Shoreline habitat

Project: Demolishing existing hard shoreline structures, importing fill material, grading the site to restore tidal inundation, and creating intertidal marsh and wet meadow habitat

Total Acreage: 0.9

Ecological Benefits: Restoring habitat to benefit fish, avian, and mammalian species in an urban portion of the river heavily impacted by the spill

Economic Benefits: Public access to a restoration site in the spill zone; creating a link in the North Delaware Riverfront Greenway; education, environmental justice, wildlife viewing, fishing, preservation of open space

Recreational Projects

Boat Ramp Restoration, Stow Creek, NJ

Addressing Injuries to: Recreational resources such as trips lost and diminished in value

Project: Widening and lengthening the existing public boat ramp, currently in poor condition, and adding a small courtesy dock to assist with boarding, loading, and unloading of people

Benefits: Expanding boating access to Stow Creek and the Delaware River and providing safer conditions for boaters, hunting, fishing

Rock Jetty Restoration, Augustine, DE

Addressing Injuries to: Recreational resources such as trips lost and diminished in value

Project: Installation of a rock jetty to limit sediment build-up in the channel around the boat ramp

Benefits: Preventing shoaling that currently affects the use and safety of the facility; the ramp is an important emergency response location for local and state agencies responding to boating accidents, oil spills, and Homeland Security issues associated with the nearby nuclear power plant

Trail Improvements, Little Tinicum Island, PA

Addressing Injuries to: Recreational resources such as trips lost and diminished in value

Project: Installing a permanent trail, two observation

decks, and a “breakaway bridge” to cross a small wet area

Benefits: Recreational opportunities similar to those lost during the spill (such as wildlife viewing, hiking, fishing, and picnicking) and preserving the area from erosion by visitors currently walking on make-shift trails, as well as providing educational benefits



Location for breakaway bridge.
Photo credit: Pennsylvania Department of Conservation and Natural Resources



Existing Stow Creek boat ramp.



Existing jetty at the Augustine boat ramp.

For more information on Athos, please visit the DARRP Web site at: <http://www.darrp.noaa.gov/north-east/athos/index.html>

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