



# Removal of Derelict or Abandoned Vessels as Site Restoration

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## Abstract

Many organizations in the United States are implementing habitat restoration using a wide array of methods. Restoration may be required under environmental statutes such as the Oil Pollution Act, Comprehensive Environmental Response, Compensation and Liability Act, and the Clean Water Act. Restoration may also be implemented to meet the mission statements of particular agencies and organizations. The removal of derelict, abandoned and grounded vessels should be considered as a potential restoration alternative. Removals, on their own or in conjunction with other actions, directly benefit intertidal and nearshore habitats that are physically smothered, shaded, contaminated, or otherwise degraded by the presence of a slowly disintegrating vessel. Additionally, vessel removal may promote public safety, safe navigation, and improvement of aesthetic values.

## Reasons for Restoration

Many organizations in the United States are involved with habitat restoration. While each has its own goals and mandates, in general, this work is designed to improve the natural habitat in the face of some specific or general impact. NOAA's restoration goals include:

- Protecting trust resources
- Restoring wetlands and other critical habitats
- Building healthy fish stocks
- Compensating for damage caused by oil spills and hazardous waste sites
- Building a community based conservation ethic

## Vessel Impacts and Removal

Removing problem vessels can meet some restoration objectives and should be considered as an alternative when such vessels exist near restoration efforts.

### Impacts include:

- Shading critical habitat
- Scouring the bottom with anchor chain
- Releasing pollutants
- Smothering / crushing habitat
- Increasing erosion
- Acting as potential illegal dump sites

It is also critical to note that, because of the sweep of anchor chains and the movement of grounded vessels and vessel debris, the potential impact footprint of a given vessel is much larger than the vessel itself



Seagull – Vessel was grounded in Sasa Bay Marine Preserve, Guam in 2002. Using a collaborative process, it was removed in 2004 to address the threats of pollution and physical impacts.

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<http://response.restoration.noaa.gov/dac/vessels/>

## Removal Benefits for Restoration:

Vessel removal can open subtidal and intertidal substrates for restoration efforts. In some cases, simply removing a vessel can be enough to allow natural recolonization. In others, more effort is needed to accomplish successful restoration.

Additionally, the prevention benefits should not be overlooked. Unless removed, vessels often become illegal dumpsites and ultimately break apart, creating a marine debris problem.

### Other benefits:

- Compensate public for lost use of a resource.
- Remove aesthetic impacts to the region.
- Open substrate for other uses, like aquaculture, fishing or recreation.

## Case Study - M/V Selendang Ayu

On December 8, 2004, the soy bean freighter M/V *Selendang Ayu* grounded and broke in half on Spray Cape on Unalaska Island, Aleutian Islands, AK, discharging its cargo and a large quantity of the onboard diesel and bunker fuels.

Response and assessment activities are on-going, but trustees are already evaluating potential restoration options. One potential option may be to remove marine debris, including grounded and abandoned vessels. For example, the F/V *Miss Maria* is grounded and broken apart close to the incident site. Trustees and the RP will be considering this option as they develop alternatives and a restoration plan.



## Case Study – Tesoro Spill, HI

On August 24, 1998, a transfer hose ruptured at a fuel terminal on Oahu spilling 5000 gallons of bunker oil that washed onto the shores of Kauai in the Hawaiian Islands. During assessment overflights, biologists from the agencies and the responsible party noted that the shallow water habitat of the island was tangled with derelict trawl nets from the North Pacific. Moved by waves and currents, the heavy duty nets were acting as large scrubbers, tearing up benthic habitats. They also posed an entanglement hazard for marine life. The natural resource trustees and Tesoro quickly realized that a net removal project would be extremely beneficial to the environment and would be cost effective compensation for damage resulting from the oil. All parties agreed to the project and over twenty tons of net were removed from the nearby shorelines and recycled. The Tesoro restoration illustrates how removal of derelict material can be a successful restoration project.



## Case Study - Mwaalil Saat – Saipan

The *Mwaalil Saat* was a 93' derelict steel hulled trawler that was tied up to the Marianas Public Land Authority in Saipan. It was identified by NOAA as a removal priority in 2003. In 2004 it broke its mooring during a typhoon, capsized and began to leak diesel. The vessel was also, at this point, blocking the island's only fuel dock. In response, the vessel was cut up in place and disposed of upland. Response costs exceeded \$3 million.

While the final response option included removal and mitigated all immediate and potential threats, securing funding and performing a removal prior to the incident would have been more cost effective and prevented impacts to both the environment and the local economy.

