

NOAA Abandoned and Derelict Vessel Case Study



F/V Helena Star

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Vessel Overview

Name: Helena Star

Incident: Vessel sank at dock.

Date reported: January 25, 2013

Vessel type: Fishing vessel or Dutch Coastal Freighter

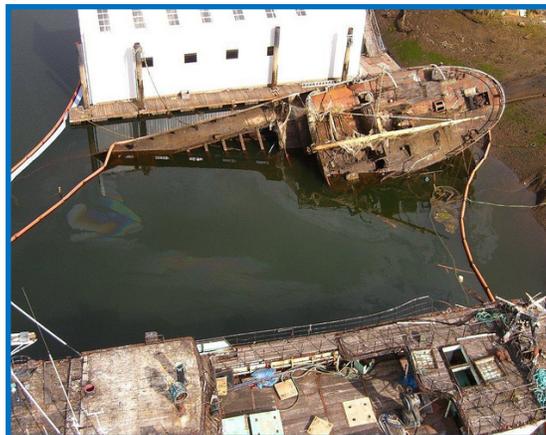
Vessel ID#: 646889

Hull material: Steel, Riveted-hull

Length: 167 ft. LOA

Beam: 27 ft.

Tonnage: Unknown



Vessel Location

Location: Commencement Bay in Tacoma, Washington

Site Name(s): Mason Marine in Hylebos waterway

General description of location: The site is an industrial port area within the Port of Tacoma

Coordinates: 47.2634 N, 122.3599 W

Average Site Depth: 20 ft, stern was in shallow intertidal, bow perpetually underwater

Habitat/Substrate Type Impacted: Vessel sank in a man-made harbor area

Jurisdictions: The federal government initially had jurisdiction due to fuel/oil leaking from the vessel and the State of Washington took over jurisdiction during the removal process.

Incident Narrative

History: The *Helena Star* was seized during an at-sea marijuana drug bust in 1978 (37 tons of pot worth \$78 million) and moored in Seattle. Her history as a drug boat made her early history a bit murky. The vessel was documented with the USCG #646889 as a fishing vessel built in Portland, Oregon in 1945 with the note “copy of Panamanian Registry showing the vessel to have been built as stated above”. However the vessel was more likely a former Dutch Coastal Freighter built as the *Violette Erica* in 1947. Regardless, it was abandoned in Seattle at a private marina. In 2011 a company purchased the marina’s lien on the vessel and moved the vessel to Tacoma, entering into a joint venture with the owner of Mason Marine with the intent of scrapping the vessel. The owners eventually abandoned the vessel when the company failed to procure the permits to scrap the vessels on site and the company went bankrupt.

In March of 2012 the US Coast Guard (USCG), fearing that the vessel would sink, proactively pumped about 20,000 gallons of oil and oily water from the vessel. On January 25, 2013 the vessel sank in the Hylebos waterway, almost sinking another abandoned vessel that it was tied to (the *Golden West*, aka *Chiwoo*). At the time of the sinking, an estimated 75 gallons of oil was released from the *Helena Star*. The USCG installed containment booms around both vessels in order to contain the pollution threat. Over the ensuing months it continued to leak small amounts oil into the waterway. Washington Department of Ecology (Ecology) estimates between 290 and 800 gallons total was spilled, with a mid-range estimate of 590 gallons. In April Ecology issued emergency orders for the three out-of-state owners and one in-state operator to remove both vessels; however, no response was received from the any of the parties. The Washington Department of Natural Resources (DNR) took custody of the vessels in August of 2013 and in October the *Golden West* was removed and dismantled. In November a Unified Command of USCG, Ecology and DNR began operations to raise the *Helena Star*; however,



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the USCG contractor was unsuccessful in raising the vessel. They did succeed in bringing the vessel upright and abating additional fuel which ended USCG efforts to raise the vessel. In March of 2014 the Attorney General of Washington filed criminal charges against the responsible party. DNR concurrently issued a Request for Proposals to raise, remove and tow the vessel out of the waterway. Finally, in July of 2014, when fish permit work windows re-opened, the vessel was raised by DNR's contractor and towed to a boat yard for dismantling, abatement, recycling and disposal. Steve Mason was criminally charged and ordered to pay restitution to DNR and Ecology.

Lead agency or organization: A Unified Command was established for all phases of the response and removal of the *Helena Star*. The USCG was the lead agency in charge of abating the pollution threat. DNR was the lead agency during the second removal process and for disposal of the vessel. Ecology played a major role in monitoring and maintaining the boom and providing permitting support to both agencies. Coordination and consultation with federal, state and local agencies on environmental permits and approvals was coordinated through an Environmental Unit lead by Ecology.

Other collaborators/stakeholders involved: US Environmental Protection Agency, US Army Corps of Engineers, the City of Tacoma Fire Department, Port of Tacoma, and Citizens for a Healthy Bay (a local non-profit), Puyallup Tribe.

Funding source(s): The Federal Oil Spill Liability Trust Fund covered the cost of removing the pollution threat including the failed attempt at raising the vessel. A one-time state appropriation to Washington's Derelict Vessel Removal Program funded the successful raising, towing, hazardous materials abatement (asbestos & lead), dismantling and disposal of the vessel.

Threats from ADV

Environmental: Residual oil from the vessel leaked into the Hylebos waterway, which may have been responsible for the oiling of several birds. Small amounts of oil continued to leak from the vessel until it was raised and towed out of the waterway. The vessel was sunk on a portion of a contaminated sediment site designated for "natural recovery" that was part of the larger Commencement Bay Nearshore/Tideflats Superfund site.

Critical habitats involved: The Hylebos Waterway is critical habitat for salmon. Removal operations were timed around the "fish window" when operations were least likely to impact salmon.

Navigation: It sank at its mooring in the harbor and was not considered a navigation hazard.

Commerce: The vessel was sunk immediately adjacent to a commercial boathouse and docks. The removal operation was hindered by the proximity to the docks and pilings; the vessel damaged the docks and pilings of the commercial property.

Vessel Removal Actions:

Start date: December 5, 2013

End date: July 24, 2014

Authorities used to take Possession of Vessel: The vessel was taken into custody by the Department of Natural Resource under the state's derelict vessel statutes (Chapter 79.100 RCW)

Removal options considered: The original plan for removal was for the USCG's contractor to conduct a two-crane pick to raise the vessel and for DNR to take over the vessel once it was floating for delivery to a shipyard that DNR had contracted with for disposal. The USCG's contractor changed plans and opted for a one-crane pick of the vessel, counting on the tide to be low enough to keep the stern above waterline while the bow was raised and the vessel pumped out. Ultimately this failed at least in part because the strain on the pick point on the bow started ripping through the bow plating and the tide was lost. The vessel settled into the muck 5.5 feet at the bow and 8 feet into the



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sediment at the stern with the amidships clear of the mud, straddling the crater from the former resting place of the hull.

Environmental Considerations: The release of additional oil into the waterway during removal was a major concern; however, no significant environmental issues were observed during the removal.

Permits Required: A number of permits were required. The original December attempt was exempt from some permitting by virtue of being a federal emergency action. Because this vessel was located on a contaminated sediment site and because it was no longer a federal emergency action, the July raising event required a number of permits and coordination with multiple regulatory agencies:

- A historical review was conducted on the vessel itself and a cultural resources review was conducted on the site.
- Sampling of the sediments took place before and after the operation by Ecology in coordination with US EPA.
- DNR obtained a hydraulic project approval from Washington Dept. of Fish and Wildlife.
- Some proposals for digging or hydraulic jetting of straps under the vessels would have triggered an Army Corps Section 10 or Section 404 permit which would have triggered NEPA, a Biological Assessment, and a state water quality permit. These methods were not used and therefore the permits were not triggered.

Removal Methods: The contractor rigged straps in a basket configuration under the bow and stern, using divers to run cable under the vessel (using the cable to haul larger chains under the hull). If divers were not able to run cable under the bow, the bow was to be picked up slightly by a chain through the house-pipe in order to run straps under the bow for the final lift. The raising of the vessel was accomplished using two large cranes (DB General and DB Los Angeles) and a tug boat was used to tow the vessel to Seattle for disposal once it was sufficiently de-watered and patched.

Salvage Contractor(s): Global Diving & Salvage was the prime contractor on the successful lift and tow. Stabbert Yacht & Ship disposed of the vessel at their shipyard in Seattle.

Contractor Selection Process: The original salvage contractor was a USCG BOA contractor. For the second effort DNR released a request for proposals and the contractor was chosen from those that responded to complete the salvage, and towing operations. The disposal contract was established under a separate DNR request for proposals issued in fall 2013.

Vessel Disposal Process/Issues: Once the Helena Star was raised and towed to Seattle a shipyard contractor dismantled, recycled and disposed of the vessel. Significant lead and asbestos abatement had to be conducted prior to disposing of the hull.

Approximate removal costs: DNR costs were \$1,176,324 not including staff time or legal fees (roughly \$566,000 for raising; \$421,000 for disposal; \$187,000 for hazardous material abatement)

Other cost information: USCG spent at least \$600,000

Additional types of debris removed: DNR additionally removed two large floating docks and the 125' vessel *Golden West* which had all been tied to the *Helena Star*. Cost numbers above do not include these costs.

Vessel removal summary: The July 2014 raising attempt involved a tandem crane pick by the DB General and DB Los Angeles. The cranes picked the vessel up with chains slung under the stern and bow.

Project Challenges

Environmental: The Hylebos waterway is part of the Commencement Bay Nearshore/Tideflats Superfund site. The site contains known contamination of the water, sediments, and upland areas. Parts of the Hylebos waterway have been dredged and then capped with clean sediment in order to



remediate the contaminated sites. The portion of the turning basin of the Hylebos waterway where the Helena Star rests was not dredged and capped. The substrate in the area was mud and gravel.

Geographical: The Hylebos Waterway is a major commercial waterway in Tacoma. This removal operation took up a significant geographic footprint in the Upper Turning Basin of the waterway and had to be coordinated so as to lessen impact the commercial businesses in the area including marine construction businesses, log and metal scrap transport operations. Additionally, the vessels were mostly on private property and required access agreements to be worked out. One of the other constraints that impacted the first operation was the availability of the 700 ton crane to pick the vessel. A USCG/EPA operation in California was scheduled to use the same crane at roughly the same time and schedules had to be adjusted for both projects accordingly.

Weather/Seasonal: The weather was good for both efforts but the December raising attempt was done in very cold weather (with temperatures in the teens) so hypothermia was a significant concern.

Funding: When the Helena Star was first identified in 2012 as a potential concern there was no funding available for its removal. When the vessel sank in 2013 and the responsible party did not respond to the emergency request order to remove the vessels the State of Washington still did not have the funds available to cover the removal and disposal. Finally in the legislative session that ended June 30, 2013 a special, one-time appropriation of 4.5 million dollars was made to the Derelict Vessel Removal Program that provided funds for the removal of both the Helena Star and the Golden West (and for other vessels of concern).

Lessons Learned

Removal of fuel pro-actively is a good idea, particularly when funding is not available to remove the vessel proactively.

Silt curtains can be more trouble than they are worth. The action of a silt curtain in a tidal environment can stir up more sediment than it contains.

Standing up a Unified Command is generally desirable to enable all of the agencies to coordinate well and use their respective talents and jurisdictions to best respond to a situation. This works best when all of the agency representatives have received Incident Command System (ICS) training ahead of the incident.

Communication is key for agencies to operate well together.

- The amount of information to put out prior to and during an event can be a sticking point between agencies.
- Unified Command participants need to clearly delineate where the hand off will be between different agencies' contractors.
- If decisions made by one agency have the potential to impact the contractual obligations entered into by another agency on a joint project, consultation between agencies on timing and operations need to happen and decisions should be made collaboratively.

Active contractor management is needed. Contractors should not be allowed to deviate from approved salvage plans without significant justification and revised plans should also be approved by qualified personnel. When there is time, agencies should go out to bid for removal efforts. Agencies should consider entering into major salvage contracts on a "no cure, no pay" basis. This is common in



the private sector. Sample contracts are available from Lloyds of London or the American Salvage Association <http://www.americansalvage.org/>.

New tools, techniques or developments

DNR has developed a ship salvage RFQ that we are willing to share with others. ICS training is available for free online from FEMA <https://training.fema.gov/nims/>

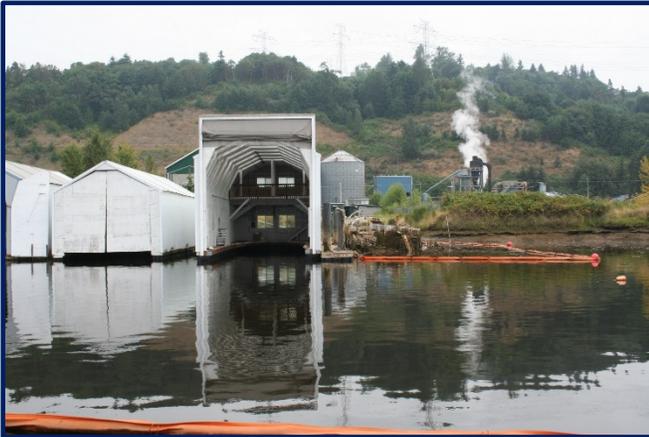
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Images:



July 15, 2014 site view from water
July 21, 2014 DB General on left, DB Los Angeles visible over the boat house



July 16, 2014 dive operations
July 22, 2014 Floating on her own.



July 24, 2014, Traversing the Ballard Locks. Note pipe from original lift attempt piercing bow.



August, 2014 in dry-dock with access hole cut in stern.

