

Oregon Japanese Tsunami Debris

At-sea Subcommittee of the JTMD Task Force

September 22, 2014

Overview

Japanese Tsunami Marine Debris (JTMD) is unique because of the potential size, construction, and origin. The Japanese Coast Guard has identified over 500 lost vessels that are known to be at-sea, some of which are probably still afloat. Additional items were also lost to sea during the tsunami and are unaccounted for. We know that three other dock sections similar to the one that washed ashore on Agate Beach in Newport, OR were similarly dislodged from their moorings. Vessels have washed ashore in Hawaii, Washington, and Alaska and there are pictures that clearly show large vessels among the debris in the wake of the Tsunami.

Allowing debris of this size to come ashore has potential risks. Debris that comes ashore in an inaccessible area could be difficult, if not impossible, to salvage. The potential to foul the near shore marine environment through pollution or the introduction of non-native aquatic species is a real threat.

Understanding that case-by-case decisions will have to be made when debris is identified and that agencies cannot commit resources to an unknown threat, this document represents a coordinated approach to determine the response options, required resources, and necessary approvals to respond to large debris at sea.

Reporting

Reports of marine debris may be completed through various means including but not limited to NOAA satellite monitoring, phone calls into Coast Guard command centers, OR 211, or WA COAST numbers, emails to NOAA at DisasterDebris@noaa.gov and beach.debris@state.or.us. Therefore it is imperative that all reporting centers are in communication to ensure a report of debris that may be of significant interest because of the potential threat it poses to public safety, environment, or property is relayed quickly and efficiently to all potential responders.

At-sea debris may be reported through sightings by aircrafts or vessels. NOAA reports the last known position of potential and confirmed debris on the NOAA website at:

<http://marinedebris.noaa.gov/japan-tsunami-marine-debris/japan-tsunami-marine-debris-sightings>.

Once a debris object is reported, no further action is taken, unless it is identified as of particular interest. This may include the size or type of debris, and its potential impact. Additionally, NOAA will provide trajectory support for potential Japan tsunami marine debris under the following circumstances:

1. The U.S. Coast Guard, state, or other requesting agency will include a clear operational objective(s)

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that a NOAA trajectory product is expected to support;

2. The requesting agency will provide periodic on-scene/aerial observations of debris location, or buoy-tracking

AND

3. Sighted debris is either:

a. Significant by size (e.g. navigation hazard) or type (e.g., hazardous material or potential vector for invasive species*); or

b. Significant by quantity (e.g., large concentration) AND less than approximately 50 nm from shore.

NOAA will report debris of interest to USCG, the States, and other potentially affected entities.

Notification will be provided as soon as possible.

In cases where any agency receives the first report of debris of interest, they will conduct the following notifications:

- NOAA Disaster Debris email (DisasterDebris@noaa.gov) and by phone at 206-369-5015 (cell for NOAA Marine Debris Regional Program Coordinator) or NOAA Emergency Response Division emergency line: [206-526-4911](tel:206-526-4911).
- U.S. Coast Guard Sector Columbia River for debris that will potentially pose a hazard to navigation or pollution/HAZMAT threat: 503-861-6211
- State of Oregon for debris that will potentially impact OR Waters or shore: OERS at 800-452-0311 or contact 211 or 800-SAFENET (800-723-3638)
- State of Washington for debris that will potentially impact WA Waters or shore: 855-WACOST (800-922-6283)
- USACE for debris that will potentially impact designated navigable channels: 360-546-0162

The agency that receives the initial report will also notify the appropriate Federal, State, local, and Tribal authorities for debris that has a pollution or hazardous material threat per its standard notification process through the Northwest Area Contingency Plan.

For verified significant debris that is reported within 50nm of the Oregon or Washington Coast the agency that receives the initial report will notify the OR Emergency Response System (OERS) /211 and request a phone conference line be coordinated for potentially impacted Federal, State, and local partners within 1-hour of notification. During this phone conference the continuing method of communication (e.g. email updates or phone conferences) will be determined with a scheduled timeline for communicating news, updates, and actions.

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Initial Actions

Following report of verified significant marine debris that includes an approximate latitude and longitude within 50nm of shore, the following initial actions will be taken:

- 1) NOAA will provide a trajectory model;
- 2) The Coast Guard will issue a Broadcast Notice to Mariners advising of a potential hazard to navigation;
- 3) The Coast Guard will determine asset availability to validate the report as operations and missions permit; and
- 4) NOAA and the Coast Guard will provide a brief to Federal, State, and local partners on findings from the trajectory model and the verification of significant marine debris report.

Response

Authorities

National Oceanic and Atmospheric Administration - NOAA

NOAA has federal authority for Marine Debris. (Marine Debris Research, Prevention, and Reduction Act of 2006)

(a)(1) Mapping, identification, impact assessment, removal, and prevention

The Administrator shall, in consultation with relevant Federal agencies, undertake marine debris mapping, identification, impact assessment, prevention, and removal efforts, with a focus on marine debris posing a threat to living marine resources and navigation safety, including –

....

(c) development and implementation of strategies, methods, priorities, and a plan for preventing and removing marine debris from United States navigable waters and within the United States exclusive economic zone, including development of local or regional protocols for removal of derelict fishing gear and other marine debris.

United States Coast Guard - USCG

The United States Coast Guard notify mariners of the presence of tsunami debris through Broadcast Notices to Mariners under 33 C.F.R. § 72.01. Additionally, a safety zone may be established around marine debris within the Coast Guard's jurisdiction to prevent injury or damage to property or the environment that could result from vessel traffic in a particular area. 33 U.S.C. § 1225, 33 C.F.R. Part 165.

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Wrecks may be marked by the Coast Guard under 14 U.S.C. § 86. Coast Guard obstruction marking regulations at 33 C.F.R. Part 64 address the process of designating hazards to navigation. Army Corps of Engineers has authority to remove obstructions to navigations under 33 U.S.C. § 414.

Under 14 U.S.C. § 88(a)(4) the Coast Guard is authorized to destroy at sea or take under tow derelict vessels and other “floating dangers to navigation.” This authority is not limited to the navigable waters of the U.S. but also includes the high seas.

The Coast Guard is authorized by 33 U.S.C. § 1321 to respond to oil discharges or substantial threats of discharge in the navigable waters of the U.S., the EEZ, and areas that affect the EEZ. Under the National Contingency Plan, 40 C.F.R. Part 300.120, the Coast Guard is the federal on scene coordinator (FOSC) for oil discharges in the coastal zone. Coast Guard FOSCs have access the Oil Spill Liability Trust Fund in response to spills on the navigable waters of the U.S. under 33 U.S.C. §2712.

Environmental Protection Agency – EPA

The EPA administers the Ocean Dumping Program pursuant to the Marine Protection, Research and Sanctuaries Act (MPRSA, 33 USC 1401 to 1445). Ocean dumping of marine debris is prohibited, except as authorized by an ocean dumping permit issued by the EPA.

Oregon Department of Environmental Quality - DEQ

Oregon DEQ, in coordination with the Coast Guard has state authority for removal of hazardous debris with Oregon’s jurisdiction. Oregon Revised Statute 466.605 through 466.680 defines DEQ’s authority relating to cleanup of oil or hazardous material spilled or released into the air or into or on any land or waters of the state or that is likely to escape or be carried into the air or into or on any land or waters of the state (threat of release).

Oregon Parks and Recreation Department - OPRD

Oregon State Parks has authority for the removal of any objects on Oregon’s beaches above the ordinary high waterline.

Oregon Department of Fish and Wildlife (ODFW)

Oregon Department of Fish and Wildlife has authority to address fish and wildlife impacts and concerns resulting from arrival of the JTMD, and the department provides subject matter expertise in the monitoring, assessment, and response to invasive aquatic species caused by JTMD. In some cases, ODFW may provide first responder capabilities for conducting the initial risk assessment of invasive species, and removal of those species from debris that cannot be removed from the marine environment quickly and safely. ODFW also provides the lead role in outreach efforts on invasive species issues associated with the JTMD.

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Oregon Department of State Lands - DSL

Oregon Department of State Lands (DSL) has authority for any debris on the seabed below the ordinary high waterline in state waters(ORS 274-Submersible and Submerged Lands).

Oregon's territorial sea is defined as the waters and seabed extending three geographical miles seaward from the Pacific coastline. The State Land Board, and the DSL as its administrative arm, have jurisdiction over the submerged and submersible land of the territorial sea. DSL has both proprietary (ownership) and regulatory responsibilities within the territorial sea.

DSL is responsible for authorizing all uses of the seabed, including placement of fiber optic cables; installation of wave and wind energy devices and research equipment; kelp removal; and exploration for minerals. DSL manages the seafloor to ensure the public has the right to use and enjoy this resource for commerce, navigation, fishing and recreation, in accordance with the Oregon Constitution and Public Trust Doctrine.

DSL has statutory authority through ORS 274 to facilitate the removal of unauthorized structures from state-owned seabed. DSL has the ability seek restitution for any costs associated with the removal of unauthorized structures and the ability to issue civil penalties, if necessary, under ORS 274.992.

Removal Strategies

Each case is independent and will rely on federal, local, state agencies, and NGOs to coordinate to determine the best course of action. A multi-agency Incident Management Team may be established under the Incident Command System to facilitate communications, determine response strategies, and develop tactics to address significant marine debris. Potential response strategies may include the following:

Removing from the water:

- 1) Debris may be able to be hoisted onboard vessels if adequate attachment points exist or a sling or net can be rigged.
- 2) In addition to lift capacity, sea state will be a major concern for hoisting an object from the water.
- 3) Once aboard a vessel, debris can be taken ashore and disposed of in accordance with applicable regulations.
- 4) Hazardous, contaminated, and uncontaminated debris can be removed in this manner.

Towing ashore:

- 1) Objects that cannot be hoisted may be towed into protected waters for disposal on land or towed to an appropriate location for beaching.

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- 2) Certain types of hazardous debris and contaminated debris may pose an environmental threat if towed into protected waters.
- 3) Sea state may be a concern for attaching a towline and crossing a bar into protected waters.

Sinking a hazard to navigation

The Coast Guard has the authority to sink a hazard to navigation under 14USC88. Coast Guard Sector Columbia River and Group North Bend will follow guidelines per Coast Guard Pacific Area and District Thirteen to seek approval from District Thirteen Commander for destruction. Coast Guard Sector Columbia River and Group North Bend will generally not destroy or sink a potential hazard to navigation without discussing with Federal partners such as NOAA, USACE, and EPA.

Sinking an object in the ocean may remove the threat of invasive species but should be considered as a last resort. Sinking the object in place or transporting it for the purposes of sinking, can involve a number of federal agencies. EPA must authorize the disposal of any debris transported for the purpose of dumping in ocean waters. If the debris is not transported but instead sunk in-place for the purpose of ocean disposal, then EPA must authorize the disposal. If debris is not transported but is sunk in place for a purpose other than ocean disposal, e.g. elimination of a navigation hazard, the U.S. Coast Guard, U.S. Army Corps of Engineers, and State of Oregon, each of which may have jurisdiction over the sinking in place, may all be involved in the decision-making.

Towing and sinking debris

If transportation of marine debris for disposal at-sea is being contemplated, the Marine Protection, Research, and Sanctuaries Act (MPRSA) regulations may apply. Other federal authorities may apply if the debris may contain hazardous substances.¹ If disposal of marine debris at sea is under serious consideration, it is recommended that decision-makers contact staff² within the Environmental Protection Agency's (EPA) Ocean Dumping Program as soon as possible to consult and coordinate on the implementation of the MPRSA. The ocean dumping criteria under the MPRSA require consideration of land-based alternatives prior to authorization of ocean dumping.

The MPRSA regulates the transportation and dumping of any material into ocean waters³ and prevents or strictly limits dumping into ocean waters any material that would adversely affect

¹ Additional authorities may apply to the removal of marine debris. Authority to remove debris, including but not limited to Tsunami debris from open water and from shorelines, is given to the U.S. Army Corps of Engineers, pursuant to Section 19 of the Rivers & Harbors Act (33 U.S.C. § 414) where navigable waters would be obstructed or endangered by such debris. The U.S. EPA and the U.S. Coast Guard are also vested with authority where such debris is characterized as containing hazardous substances (Section 104 of CERCLA), and/or oil or pollutants or contaminants (Section 311(c)(1 & 2) of the CWA, also known as the Oil Pollution Act (OPA)). The USCG and EPA implement these authorities through the National Contingency Plan for Oil and Hazardous Substances, 40 CFR Part 300.

² Ocean Dumping Program contact for Oregon: Bridgette Lohrman. Lohrman.bridgette@epa.gov; 503.326.4006.

³ Ocean waters are defined as, "those waters of the open seas lying seaward of the baseline from which the territorial sea is measured. This definition includes the territorial sea, the contiguous zone and any portion of the high seas beyond the contiguous zone. Ocean waters do not include internal waters, also known as inland waters, which are inside or landward of the baseline of the territorial sea. The baseline of the territorial sea is generally the low water line (i.e., Mean Lower Low Water) along the coast, except where the United States has drawn specific closing lines, such as bay closing lines, river closing lines and harbor closing lines. Such bay, river and harbor closing lines also form part of the baseline of the territorial sea, and the waters enclosed thereby are internal waters."

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human health, welfare, amenities, the marine environment, ecological systems, or economic potentialities. The MPRSA implements the requirements of the international treaty governing ocean dumping, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (also known as the London Convention). Unless authorized by permit or by regulation (or excluded from regulation by the MPRSA itself), the MPRSA prohibits the transportation of any material for the purpose of dumping.

The MPRSA and implementing regulations (40 CFR Subchapter H) prohibit the ocean dumping of the following materials:

- High-level radioactive waste
- Medical waste
- Sewage sludge, except by existing compliance agreement,
- Industrial waste, except by existing compliance agreement,
- Radiological, chemical, and biological warfare agents
- Materials insufficiently described in terms of composition and properties
- Persistent inert synthetic or natural materials which may float or remain in suspension in the ocean in such a manner that the interfere materially with fishing, navigation, or other legitimate use of the ocean
- Constituents prohibited as other than trace contaminants as defined at 40 CFR 227.6.⁴
- Oil of any kind or any form, insofar as such oil is not regulated by the CWA
- Known carcinogens, mutagens, or teratogens or materials suspected by responsible scientific opinion to be carcinogens, mutagens, or teratogens.

Material, as defined under this law, means matter of any kind or description. Thus, if debris, found either onshore or at sea, is to be transported for the purpose of disposal anywhere in ocean waters, the MPRSA regulations apply and a permit for at-sea disposal is required.

The EPA can issue four types of permits for ocean dumping: 1) general permits; 2) special permits; 3) research permits; and 4) emergency permits. In general, the permit processes are complex, requiring sufficient information and controls to ensure that the objectives of the MPRSA are met.

- ❖ **General permits** may be issued for the dumping of certain materials which will have a minimal adverse environmental impact. The EPA has issued general permits under the MPRSA, including a general permit codified at 40 CFR 229.3 for the transportation and disposal of vessels into the ocean which allows for limited flexibility in a declared emergency situation. General permits may include geographical areas or regions where materials may be dumped. There is no general permit for marine debris.
- ❖ **Special permits** may be issued for disposal of material in the ocean that meets the ocean dumping criteria. Areas where ocean dumping is permitted subject to specific conditions of individual special permits are designated through rulemaking. Site designations are based on environmental

⁴ The ocean dumping, or transportation for dumping, of organohalogen compounds, mercury and mercury compounds, and cadmium and cadmium compounds will not be approved except on an emergency basis.

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studies at each site and regions adjacent to the site, and on historical knowledge of the impact of waste disposal on areas similar to such sites in physical, chemical, and biological characteristics.

- ❖ **Research permits** may be issued for the dumping of materials into the ocean as part of a research project when it is determined that the scientific merit of the proposed project outweighs the potential environmental or other damage that may result from dumping. The designation of disposal sites is included in these permits.
- ❖ **Emergency permits** may only be used in situations where the material to be disposed poses “an unacceptable risk relating to human health and admits of no other feasible solution.” “Emergency” refers to situations requiring action with a marked sense of urgency, but is not limited to circumstances requiring immediate action. Dumping sites for materials disposed of under an emergency permit are specified as a permit condition based on an individual appraisal of the characteristics of the waste and the safest means for its disposal. If certain prohibited constituents (listed in the regulations at 40 CFR 227.6) are present in other than trace amounts, an emergency permit may be issued after consultation with Department of State with respect to the need to consult parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (also known as the London Convention) that may be affected by the dumping. The designation of disposal sites is included in these permits.

General Permit - Transport and disposal of vessels at sea

The EPA has a general permit for the transport and disposal of vessels at sea. The regulations governing such action can be found at 40 CFR 229.3. These regulations address two situations: 1) non-emergency vessel disposal; and 2) emergency vessel disposal. For a vessel disposal to be considered an emergency by EPA, the U.S. Coast Guard or the U.S. Army Corps of Engineers must declare it an emergency (See Addendum).

EPA’s Ocean Dumping Permits and Invasive Species

Specific to the issue of invasive species, the ocean dumping criteria used to evaluate permit applications for ocean dumping address non-native species in 40 CFR 227.7(c) & (e), titled “Limits for specific wastes or waste constituents.” Permits for ocean dumping of such materials must meet the following limitations to be acceptable for ocean dumping:

- (a) Wastes containing living organisms may not be dumped if the organisms present would endanger human health or that of domestic animals, fish, shellfish and wildlife by:
 - 1) Extending the range of biological pests, viruses, pathogenic microorganisms or other agents capable of infesting, infecting or extensively and permanently altering the normal populations of organisms;
 - 2) Degrading uninfected areas; or
 - 3) Introducing viable species not indigenous to an area.
- (b) Wastes containing biodegradable constituents, or constituents which consume oxygen in any fashion, may be dumped in the ocean only under conditions in which the dissolved oxygen after allowance for initial mixing, as defined in §227.29, will not be depressed by more than 25 percent below the normally anticipated ambient conditions in the disposal area at the time of dump

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Invasive species are also addressed in the regulations for designating disposal sites under 40 CFR 228.6 "Specific criteria for site selection." One of the factors that must be considered in the selection of a disposal site is 228.6(a)(10) - Potentiality for the development or recruitment of nuisance species in the disposal site.

At a minimum, the Taskforce should also anticipate that the issuance of any permit for the disposal of JTM in ocean waters is expected to include consultations with:

- a) Marine debris object's country of origin, via State Department. NOAA MDP could facilitate the process.
- b) NOAA NMFS, for impact on marine species.
- c) NOAA OR&R, for appropriate scuttling location.
- d) Industry, e.g., Oregon Fishermen's Cable Commission, for location submarine cables

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Addendum 1

Conditions in EPA's General Permit for transporting and disposing of vessels under emergency and non-emergency situations.

EPA's Ocean Dumping General Permit for Vessels		
Conditions	Non-Emergency	Emergency
No later than 1 month prior to the proposed disposal date, the person desiring to dispose of a vessel shall provide the following: 1) a statement detailing the need for the disposal of the vessel; 2) type and description of vessel to be disposed of and type of cargo normally carried; 3) detailed description of the proposed disposal procedures; 4) information on the potential effect of the vessel disposal on the marine environment; and 5) documentation of an adequate evaluation of alternatives to ocean disposal (i.e., scrap, salvage, and reclamation)	√	
Transportation for the purposes of ocean disposal may be accomplished under the supervision of the District Commander of the USCG or his designee.	√	√
Appropriate measures shall be taken, prior to disposal, by qualified personnel to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation (i) emptying of all fuel lines and fuel tanks to the lowest point practicable, flushing of such lines and tanks with water, and again emptying such lines and tanks to the lowest point practicable so that such lines and tanks are essentially free of petroleum, and (ii) removing from the hulls other pollutants and all readily detachable material capable of creating debris or contributing to chemical pollution.	√	
The dumper shall no later than 10 days prior to the proposed disposal date, notify the EPA Regional Administrator (RA) and the District Commander of the USCG that the vessel has been cleaned and is available for inspection; the vessel may be transported for dumping only after EPA and USCG agree that the requirements of paragraph above have been met.	√	
Disposal shall take place in a site designated on current nautical charts for the disposal of wrecks or no closer than 12 miles from the nearest land and in water no less than 50 fathoms deep, and all necessary measures shall be taken to insure that the vessels sink to the bottom rapidly and that marine navigation is not otherwise impaired.	√	√
Disposal shall not take place in established shipping lanes unless at a designated wreck site, nor in a designated marine sanctuary, nor in a location where the hulk may present a hazard to commercial trawling or national defense.	√	√
Disposal shall be performed during daylight hours only.	√	
The USCG Captain-of-the-Port (COTP) and the EPA RA shall be notified 48 hours in advance of the proposed disposal. In addition, the COTP and the EPA RA shall be notified by telephone at least 12 hours in advance of the vessel's departure from port with such details as the proposed departure time and place, disposal site location, estimated time of arrival on site, and the name and communication capability of the towing vessel. Schedule changes are to be reported to the COTP as rapidly as possible.	√	
The National Ocean Survey shall be notified in writing within 1 week of the exact coordinates of the disposal site so that it may be marked on appropriate charts.	√	√

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Addendum 2

Sensitive and Resilient Areas (SARA): Decision-making about Potential Grounding Sites for Large At-Sea JTMD along the Oregon Coast