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# Washington State Marine Debris Coordination Plan June 2015



**NOTE:**

This is a living document, subject to changes and modifications as best practices are acquired and lessons are learned.

Cover Photo:

Marine debris found at Benson Beach on Cape Disappointment  
Taken by Chuck Matthews, WA State Dept. of Ecology, June 15, 2012

June 2015

c/o Washington State Military Department  
Emergency Management Division  
Camp Murray, WA 98430

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## Foreword

Due to the low volume of identifiable Japan Tsunami Marine Debris expected to be arriving on Washington State shorelines, the Washington State Marine Debris Response Plan has been changed to a coordination plan.

The devastating earthquake and resulting tsunami that struck Japan on March 11, 2011, generated an estimated total of 25 million tons of debris, and the receding waters carried roughly 5 million tons of debris offshore. While heavier debris sank near shore, the Japanese government estimates that 1.5 million tons of floating debris dispersed in the vast North Pacific Ocean. As of May 31, 2012, reports of high wind-driven marine debris items such as buoys and floats, empty plastic containers, and bottles found on Washington State beaches suggest that this debris may have arrived to this area. Similar items were found along the West Coast and Alaska.

Some items with identifying markers could be traced back to the tsunami event. National Oceanic and Atmospheric Administration (NOAA) models estimate that high wind-driven debris has arrived during the winter of 2011-2012 while the bulk of the debris is still offshore, north and east of Hawaii.

The Coast Savers' Earth Day 2012 cleanup, a volunteer-based marine debris cleanup spanning the entire outer coast of Washington State, removed a total of 30 tons of debris using over 1,400 volunteers. While above average, this amount is below the maximum of 40 tons removed in 2005, and similar to the amounts removed in 2003 and 2009-before the 2011 Japan Tsunami.

The Coast Savers' Earth Day 2013, 2014, and 2015 coastal cleanup events resulted in removal of 15 tons, 15.5 tons, and 20 tons respectively from our outer coastline using approximately 1000 volunteers each year.

Even though there's no debris mass headed for Washington State shores, addressing this debris is still very important. We must work with our local, state, Federal, and tribal partners to monitor the debris, respond to Japan Tsunami Marine Debris, and try to mitigate any impacts.

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## 1. INTRODUCTION

### 1.A. PURPOSE

The purpose of this coordination plan is to coordinate federal, tribal, state, and local activities to monitor and assess the Japan tsunami marine debris along the Washington State coastline and all other Washington State marine shorelines affected by tidal action; minimize the risk of injury from large debris and contaminants; prevent the establishment of high risk invasive species; minimize impacts to native fish and wildlife and their habitats; and facilitate removal of marine debris as feasible when depositions exceed landowner and existing cleanup capabilities.

### 1.B. SCOPE

This coordination plan is applicable to federal, state, and local governments; Indian tribes and nations; and private and non-profit agencies with an interest in Japanese tsunami marine debris activities. This plan adopts a “whole of government” approach, which is a coordinated method of addressing Japan Tsunami Marine Debris (JTMD) on all shorelines in Washington State by federal, state, and tribal governments responding to requests for assistance from any governmental entity. This plan is considered a living document and updates will be made as needed or when required. This plan supports the response actions described in the Washington State Comprehensive Emergency Management Plan and focuses on six (6) response activities:

- Routine and Small Debris (Section 2.A.)
- Large Onshore Debris (Section 2.B.)
- Hazardous Debris (Section 2.C.)
- Offshore Debris (Section 2.D.)
- Aquatic Invasive Species (Section 2.E.)
- Communications and Outreach (Section 2.F.)

### 1.C. SITUATION

Current information provided by NOAA suggests that three years after the March 2011 earthquake and tsunami struck Japan; whatever debris remains floating is widely dispersed. While there likely is some debris still floating at sea, there is very little debris that can be identified as originating from the Japan Tsunami of 2011 reaching Washington outer coast and other marine shores. A significant amount of debris has already arrived on Washington shores, and it will likely continue arriving in the same scattered way over the next several years. As we get into the fall and winter storm seasons, we can expect to see more debris coming ashore, including Japan tsunami debris mixed in with the “normal” marine debris that we see every year.

NOAA has modeled the debris' movement (see Attachment C-NOAA Japan Tsunami Marine Debris Modeling), and the model shows the overall spread of all simulated debris and an area where there may be a higher concentration of lower floating debris (such as wood) in one part of the Pacific. However, that doesn't mean it's in a mass, and it doesn't tell us how much is there, it just shows there may be more debris there than in other areas. Observations of the area with satellites have not shown any debris.

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#### 1.D. PLANNING ASSUMPTIONS

This coordination plan operates under several assumptions:

- The expected quantity of tsunami-related debris is unknown, but is not expected to be of significant volume.
- Local jurisdictions do not have the resources for large scale tsunami-related debris cleanup.
- No one agency is staffed, equipped, or funded at a level to solely address this problem. Hence, this effort will rely on the “whole of community” approach for success.
- Neither federal nor state funding is assured to assist with marine debris removal.
- Coordinated support from local, state, tribal, and federal agencies is available.
- Not all shorelines are readily accessible for monitoring and debris removal.
- Private landowners are not responsible for securing, decontaminating, or removing large onshore or hazardous debris.
- Debris size classification is as follows:
  - Class 1 debris: This debris is similar to material that washes up on the beaches regularly. Debris in this class have the following characteristics, the pieces are small and easily picked up by one person and removed without excavation of the beach, these items are not toxic and are small enough to not support significant colonies of plants or animals. It is expected that this type debris will comprise the largest component of material washing up on the beaches. This would include bottles, buckets, floats, small pieces of timber (raw or processed), netting, anchor ropes, etc.
  - Class 2 debris: Material in this class is generally larger requiring two people to pick it up or use of small equipment such as vehicles with mounted winches or lifts. This larger material is more likely to contain toxic materials and support larger communities of plants and animals. Debris may require special handling to prevent the release of invasive species and toxic material.
  - Class 3 debris: Material in this class will generally be large bulky, and heavy. This material is likely to contain toxic material and may have attached invasive species. Items in this class include fishing boats, buildings, docks, cars, large masses of netting and ropes that will require dismantlement and/or the use of

heavy equipment to remove. A Hydraulic Project Approval (HPA) from Washington Department Fish and Wildlife (WDFW) is required prior to the removal of Class 3 debris from state and private lands.

## 2. CONCEPT OF OPERATIONS

The Washington Military Department/Emergency Management Division (EMD) is the state coordinating agency for the state's response to Japan Tsunami Marine Debris. The goal is to keep Washington State coastline and other Washington State marine shorelines clear of harmful Japan Tsunami Marine Debris.

EMD coordinates the state's Tsunami Marine Debris Response Task Force which is made up of various federal and state agencies, which will focus on the following marine debris response activities:

- a. Routine and Small Debris
- b. Large Onshore Debris
- c. Hazardous Debris
- e. Offshore Debris U.S.
- f. Aquatic Invasive Species
- g. Communications and Outreach

### **Response on State-Owned Land or Private Land**

Word of marine debris may come from a citizen or from a local, state, tribal or federal official to Washington State Emergency Operations Officer (SEOO) at 1-800-258-5990. When informed of marine debris on state or privately owned property the SEOO will notify the appropriate state or agency.

- The state property owner will respond to the call and generally the first responder will be the Washington State Parks and Recreation Commission for the outer coast lands that are under state ownership or control (public beaches and public access routes to beaches). The WA State Parks manages the Seashore Conservation Area, which encompasses the lands from high tide to extreme lowest tide level and from the Makah Indian Reservation to the Columbia River (Cape Disappointment).
- Private landowners coordinate and manage routine collection of marine debris on their lands; however, if debris is suspected to have Aquatic Invasive Species on it, the WA State Department of Fish and Wildlife will respond.
- Washington State Department of Natural Resources (DNR) manages state owned or controlled submerged lands in front of the Seashore Conservation Area from the extreme low tide line out to three nautical miles offshore.
- Within Willapa Bay, Grays Harbor, and the Strait of Juan de Fuca, DNR manages submerged lands and those tidelands that had not historically been sold into private ownership.

## Washington State Marine Debris Coordination Plan April 2014

- If the debris requires multi-agency coordination, the responding agency requests the assistance from other RRT agencies. The RRT will confer telephonically to plan the response when necessary.
- Washington Emergency Management Division will assist with all funding requests for Tsunami Debris Removal and/or Aquatic Invasive Species IAW Annex B-Financial Management Process.

### **Response on Federal or Tribal-Owned Land**

- Generally the first responder will be the National Oceanic and Atmospheric Administration (NOAA). NOAA oversees the response and cleanup activities within the Olympic Coast National Marine Sanctuary, which encompasses the one hundred thirty five miles of outer coast lands from Koitlah Point, Makah Indian Reservation (NW point of Neah Bay) south to Griffiths-Priday Ocean State Park , and extends 25-50 miles seaward.
- The Washington State RRT will only respond to debris on federal or tribal land when invited by the landowner. Under those circumstances, the team must be accompanied by a representative of the landowner who is endowed with the authority to either support or veto decisions made by the RRT. The RRT will be augmented with resources (staff and equipment) from the landowner in keeping with the “whole of government” approach embodied in the plan
- Washington Emergency Management Division will assist with all funding requests for Tsunami Debris Removal and/or Aquatic Invasive Species IAW Annex B-Financial Management Process.

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### **2.A. ROUTINE AND SMALL DEBRIS**

#### **State Lead Agency**

Washington State Department of Ecology

#### **Supporting Agencies**

U.S. Fish and Wildlife Service

Washington State Department of Health

Washington State Parks and Recreation Commission

Washington Military Department, Emergency Management Division

Federal, State, and Private Land Owners

Indian Tribes and Nations

Local Health Jurisdictions

Non-Governmental Organizations

Private Land Owners

## Goal

Remove routine and small non-hazardous debris items to eliminate environmental and safety risks, and the economic impact. Minimize impacts to threatened and endangered species, migratory birds, and their habitats.

## Specific Tasks

1. Support existing efforts to remove routine and small non-hazardous marine debris from Washington State's shoreline.
2. Coordinate response to reports of potential hazards associated with removal of routine and small shoreline marine debris.
3. Collaborate with NOAA and other agencies to obtain data on debris trajectories and location to improve planning for shoreline clean-up.
4. Utilize dedicated state and federal funding to provide solid waste drop boxes, bags, and other needed equipment for volunteers assisting in routine and small non-hazardous marine debris removal. These funds will also be used to pay for disposal costs when drop boxes are full.
5. Deploy Washington Conservation Corps to assist with debris removal or other cleanup-related tasks, provided funding is available either by allocation or sponsorship. ??
6. Continue collaboration with state agencies, NOAA, and other federal agencies to support scheduled coastal cleanup efforts to the limit of their capacity.
7. Assist landowners with determining when marine debris quantities significantly exceed typical volumes encountered under ordinary circumstance and the available capacity for removal, hauling, and disposal/recycling.
8. Work with Washington State Department of Fish and Wildlife to assess the level of potential invasive species risk posed by small debris. If there's an elevated risk, modify debris removal plans to incorporate marine debris collection and disposal techniques to minimize risk.
9. Assist with the assessment of needs and circumstances in remote areas that may require special logistical planning to perform cleanup. Such areas may include the shorelines of: Olympic National Park, tribal lands, national wildlife refuges, and offshore islands, Willapa Bay, Grays Harbor, the Strait of Juan de Fuca, San Juan Islands, and Puget Sound.

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## 2.B. LARGE ONSHORE DEBRIS

### State Lead Agency

Washington State Department of Ecology

### **Supporting Agencies**

U.S. Environmental Protection Agency

U.S. Coast Guard

U.S. Fish and Wildlife Service

Washington State Department of Enterprise Services

Washington State Department of Fish and Wildlife

Washington State Department of Health

Washington State Department of Natural Resources

Washington State Parks and Recreation Commission

Washington State Recreation and Conservations Office, Washington Invasive Species Council

Washington State Military Department, Emergency Management Division

### **Goal**

Address large marine debris items to eliminate environmental and safety risks and impediments to beach use.

### **Specific Tasks**

1. The landowner (federal, state, local government, or private) should immediately notify the local authorities (a 911 call) or tsunami debris federal and state agencies (NOAA Marine Debris Program at [DisasterDebris@noaa.gov](mailto:DisasterDebris@noaa.gov), National Response Center at 1-800-424-8802, and Washington State Emergency Operations Officer (SEOO) at 1-800-258-5990 that a large marine debris item has been found.
2. On State and private land, the first State Agency responding will assess whether the item poses an immediate threat to public health, safety, and the environment – particularly potential hazardous material, invasive species, navigation, and radiation risks.
3. On federal and tribal lands, the landowner (e.g., National Park Service, U.S. Fish & Wildlife Services, and tribe) will coordinate financial assistance with WEMD IAW Annex B, Financial Management Process, of this coordination plan.
4. Petroleum and other hazardous materials may be attached to or part of marine debris. Ecology should inspect items to determine if an emergency environmental response is warranted, including cleanup, decontamination, and disposal procedures.
5. Invasive species may be attached to marine debris. Washington State Department of Fish and Wildlife and other subject matter experts should inspect items and address any invasive species found and provide appropriate decontamination procedures.
6. Until concerns over radiation contamination have been put to rest, radiation spot checks by Department of Health should be conducted to rule out contamination.
7. Large debris may be “attractive nuisances”; posing a risk to human safety in the surf line or as they settle on the beach. Efforts to keep citizens at a safe distance until the debris has been tested for contaminants, cleaned of marine growth, and stabilized on the

beach will be important. State agencies, along with tribal and local law enforcement will coordinate efforts to secure large debris and maintain public safety.

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## **2.C. HAZARDOUS DEBRIS**

### **State Lead Agency**

Washington State Department of Ecology  
Washington State Department of Health  
U.S. Coast Guard

### **Supporting Agencies**

Washington Military Department, Emergency Management Division  
U.S. Environmental Protection Agency  
U.S. Fish and Wildlife Service  
Olympic National Park

### **Goal**

Remove and dispose of hazardous and potentially hazardous items (such as spilled oil, fuel tanks and containers, drums, gas cylinders, chemical totes, and other containers) that may hold oil and other petroleum products or be filled with hazardous materials, including potentially radioactive hazards.

### **Specific Tasks**

1. When notified, Washington State Department of Ecology and the U.S. Coast Guard, often in collaboration with local, state, tribal, and federal agencies, will investigate reports of oil spills and hazardous material releases associated with marine debris items. Both agencies maintain a 24/7 environmental emergency response capability.
2. When Ecology and the Coast Guard determine debris items pose an immediate threat to public health, safety, and the environment, the agencies will dispatch environmental emergency response teams to go on-scene to assess risks and determine best strategies to safely remove and dispose of the debris.
3. If Ecology determines a debris item also poses a potential radiation threat, then the Washington State Department of Health will be called in to assist with response.
4. Ecology and the Coast Guard may hire private cleanup contractors to help respond to and remove hazardous debris items.
5. Ecology and the Coast Guard may also notify and activate the Region 10 Regional Response Team as needed.
6. The public should stay away from all hazardous items and not make any attempt to remove this type of debris or open containers holding unknown and potentially hazardous items.
7. Report potentially hazardous debris items immediately to the Washington State Department of Ecology.

8. Potentially hazardous debris items found on tribal and federal property should be reported immediately to the U.S. Environmental Protection Agency/U.S. Coast Guard's National Response Center: 1-800-424-8802. Federal and tribal authorities will likely coordinate with Ecology and local fire and law enforcement agencies for assistance.
9. Washington Department of Enterprise Services has state contracts in place for removal of derelict vessels and large onshore and floating debris.

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## **2.D. OFFSHORE DEBRIS**

### **Federal Lead Agency**

U.S. Coast Guard

### **Supporting Agencies**

U.S. Army Corps of Engineers

U.S. Environmental Protection Agency

National Oceanic and Atmospheric Administration

Washington State Department of Ecology

Washington Military Department, Emergency Management Division

### **Goal**

Address large debris items at sea that may pose a threat to navigation or a pollution risk.

### **Specific Tasks**

Large marine debris item found at sea may pose a hazard to navigation or a pollution risk. If the debris item is a potential hazard to navigation, immediately radio your nearest US Coast Guard Sector Command Center via VHF-FM Ch. 16 or 2182 MHz or notify the US Coast Guard Pacific Area Command at 510-437-3701. Do not attempt to move or remove the item.

1. When notified, the Coast Guard, in collaboration with federal and state agencies, will investigate a floating marine debris item that may pose a hazard to navigation or create pollution risk. Such items may include drifting vessels, floating containers, or leaking drum(s).
2. The Coast Guard may notify and activate the Region 10 Regional Response Team as needed.
3. An Incident Command structure may be established to best address the situation and facilitate communication between the various agencies.
4. NOAA's Scientific Support Coordinator (SSC) may be activated to support the response. NOAA's Marine Debris Program will assist through the SSC.
5. If a foreign vessel is involved, the Coast Guard will contact the country of origin or the country where the vessel is registered for additional information. The owner, if he or she can be traced, should be contacted as well.
6. Large items at sea will be handled on a case-by-case basis, considering factors such as safety, salvaging options, pollution risk, and immediate hazard to navigation.

7. If transport of a vessel for at-sea disposal is proposed, EPA must determine if transport and disposal complies with all conditions of the federal Marine Protection, Research, and Sanctuaries Act (MPRSA) general permit prior to transport. NOAA may advise on a suitable location for disposal. Under the MPRSA permit, vessel disposal is not allowed within the boundaries of the Olympic Coast National Marine Sanctuary (OCNMS). Transportation of any non-vessel debris for disposal at sea is prohibited without prior EPA authorization.
8. In the event that a large item interferes with port operations or is in a navigation channel, the U.S. Army Corps of Engineers, in coordination with federal, state, and local agencies, may have jurisdiction and responsibility to provide assistance.
9. Funding for removal will rest primarily with the U.S. Coast Guard and in some instances, the US. Army Corps of Engineers.

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## **2.E. AQUATIC INVASIVE SPECIES**

### **State Lead Agency**

Washington State Department of Fish and Wildlife

### **Supporting Agencies**

National Oceanic and Atmospheric Administration

U.S. Coast Guard

U.S. Fish and Wildlife Services

Tribal Governments

Washington State Department of Ecology

Washington State Department of Natural Resources

Washington State Parks and Recreation Commission

Washington Military Department, Emergency Management Division Local Jurisdictions

### **Goal**

Respond to reports of sizeable marine debris with living organisms to evaluate, identify, contain, and eradicate aquatic invasive species (AIS) before they can impact native ecosystems.

### **Specific Tasks**

1. Lead AIS debris inspection and management on state and public lands and prioritizes safety for any AIS management incident.
2. Provide staff and equipment to assess, evaluate, and decontaminate suspected AIS-laden debris.
3. On federal lands, tribal lands, and for offshore debris, WDFW will assist with AIS debris inspection and management upon request.
4. Utilize the best science, existing knowledge, and contemporary experience in AIS management (e.g., Puget Sound marine tunicates and freshwater zebra/Quagga mussels) for debris incidents.

5. Work collaboratively with state, regional, national, and international AIS colleagues to identify existing debris management protocols for offshore and shoreline conditions.
6. Depending on funding and resources, WDFW will lead the development and testing of new techniques and protocols for management of AIS in offshore and shoreline conditions.
7. Collect samples and photograph AIS-suspected organisms found on confirmed marine debris.
8. Utilize experts from the scientific community to positively identify debris-associated AIS organisms down to species taxonomic classification where possible.
9. Develop a multi-jurisdictional program for comprehensive shoreline AIS assessment and monitoring.
10. When practical and appropriate, provide training to selected responders on AIS awareness and management.
11. Take actions to prevent debris with AIS from reaching the shoreline. Suggest protocols to contain or eradicate attached AIS prior to debris removal from water.
12. Manage AIS-infested debris using one or more of the following actions:
  - a. Containment: Prevent spread by debris breakup; dislodgement of attachments; release of AIS reproductive materials; and escape of secondary (e.g., crabs, limpets, worms, etc.) AIS.
  - b. Control: Reduce AIS population numbers as quickly as possible.
  - c. Eradication: Remove AIS for upland disposal or kill all debris-associated AIS in place.
13. See the *Washington State Department of Fish and Wildlife Marine Debris Response Annex* to 2012 Washington State Marine Debris Response Plan at <http://wdfw.wa.gov/publications/01431/> for more details.

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## **2.F. COMMUNICATIONS AND OUTREACH**

### **State Lead Agency**

WA State Department of Ecology

### **Supporting Agencies**

Washington State Department of Fish and Wildlife

Washington State Department of Health

Washington State Military Department, Emergency Management Division

Washington State Department of Natural Resources

Washington State Parks and Recreation Commission

Governor's Office of Indian Affairs

Washington State Commission on Asian Pacific American Affairs

## Goal

Provide the first and best source of information about Japanese tsunami marine debris and its impacts on the Washington State coast. This includes providing effective risk-management communications and equipping citizens and stakeholders with the information they need to address issues associated with potential debris, including risks to human safety and spread of invasive species.

## Specific Tasks

1. Establish and maintain communications network based on a tiered system (similar to a phone tree) for disseminating information.
2. Create communications strategy based on events and times of high public uses for Washington State's coastal beaches.
3. Coordinate outreach efforts, including developing Washington State-specific talking points on tsunami debris and other outreach materials (e.g., "who to call" flier, best practices for handling tsunami debris, etc.) using communications networks and strategies.
4. Coordinate media communications among local, tribal, and state sources, including developing and maintaining a media contact list, releasing information and materials based on communication strategy, monitoring media reports, responding to misinformation or rumors, and ensuring coordinated response to media inquiries.
5. Coordinate communication and outreach efforts with other states, NOAA, and other federal partners, including Washington State contributions to the Joint Information website (<http://disasterdebris.wordpress.com/about/>). This requires expanding core contacts group list and crafting a master list of state communicators, including a credible speakers list for public events, and coordinate the disposal sites with the volunteer work of the Coastal Marine Resource Committees.
6. Develop and maintain centralized Washington State website, <http://marinedebris.wa.gov/>, on tsunami debris that includes:
  - Key messages and links to other web resources (NOAA, Health, Ecology, and other coastal states and communities).
  - How to volunteer; volunteers should register with their county and follow local jurisdiction guidelines for volunteer cleanup of marine debris.
  - What to do if you find debris (including contact information about who to call).
  - Receptacle for facts and figures about what is going on in Washington State.
  - "Myth busting" (or "setting the record straight") information to correct misperceptions and faulty media reporting.
7. Keep local, tribal, state, and federal elected officials informed to keep surprises to a minimum. This also will foster a network for information-sharing and updating the communications strategy.

### 3. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

#### 3.A. COORDINATION PLAN ORGANIZATION

When needed the Washington State Debris Response ICS Support Structure (Figure 1) will be activated.

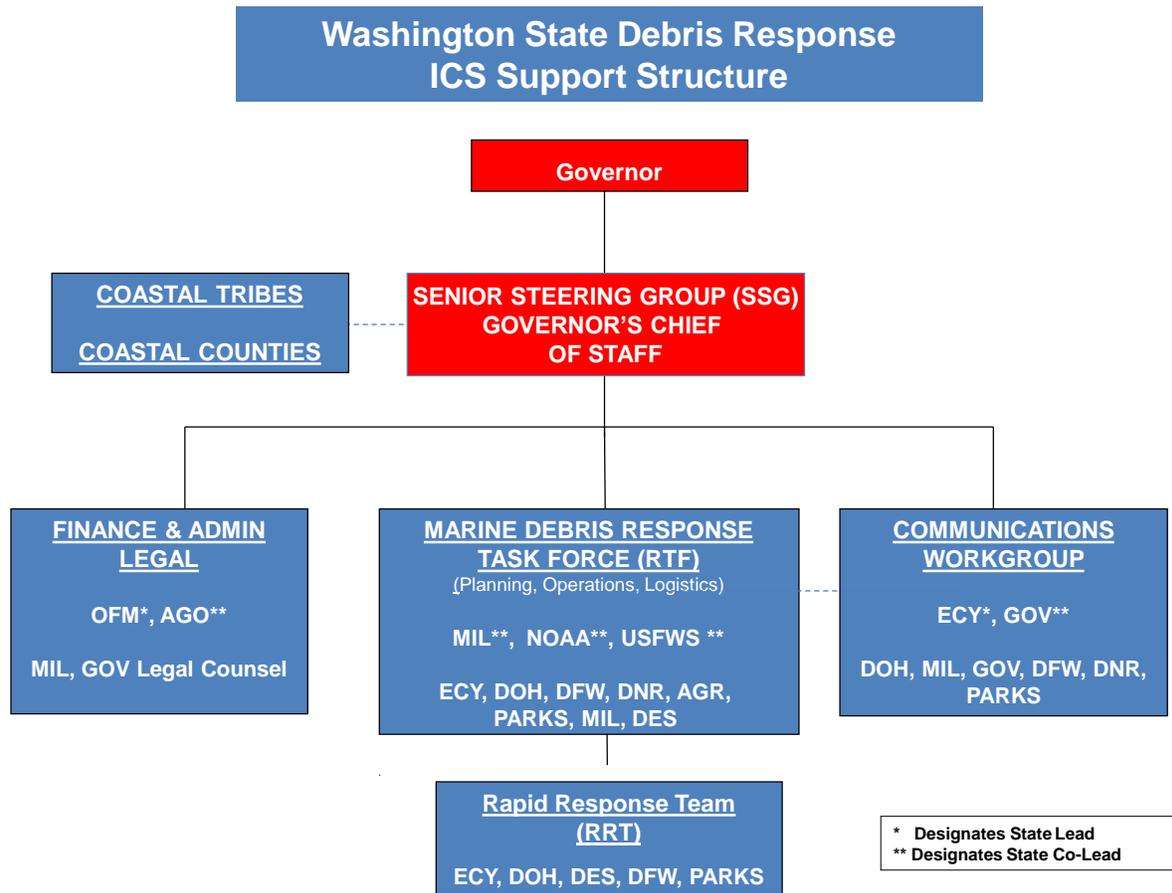


Figure 1. Washington State Debris Response ICS Support Structure

#### 3.B. SENIOR STEERING GROUP (SSG)

The Senior Steering Group is made up of directors of the state agencies that have the responsibility to respond to marine debris issues. They provide overall policy direction for the state's response to marine debris.

- Washington State Office of the Governor
- Washington State Military Department, Emergency Management Division
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife

- Washington State Parks and Recreation Commission
- Washington State Department of Natural Resources
- Washington State Office of Financial Management
- Washington State Department of Agriculture
- Washington State Department of Health
- Washington State Department of Enterprise Services
- Governor's Office of Indian Affairs
- Washington State Commission on Asian Pacific American Affairs

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### **3.C. MARINE DEBRIS RESPONSE TASK FORCE (RTF)**

The Marine Debris Response Task Force is the group charged with applying the combined resources of federal, state, local, tribal governments, private industry, and concerned citizens to the safe and timely removal of debris from coastal waters and shorelines up to the high water mark.

- Washington State Department of Agriculture
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife
- Washington State Department of Health
- Washington State Military Department, Emergency Management Division
- Washington State Department of Natural Resources
- Washington State Office of Financial Management
- Washington State Department of Enterprise Services
- Washington State Office of the Governor
- Washington State Parks and Recreation Commission
- National Oceanic and Atmospheric Administration
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Olympic National Park

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### **3.D. RAPID RESPONSE TEAM (RRT)**

The Rapid Response Team (RRT) is comprised of subject matter experts (SME's) of agencies who have a response role in dealing with large or hazardous items of marine debris or those containing potentially invasive species.

The following agencies staff the RRT:

- Washington State Department of Ecology (Hazardous Materials and External Affairs)
- Washington State Department of Fish and Wildlife (Aquatic Invasive Species)
- Washington State Parks and Recreation Commission (Landowner)

- Washington State Department of Health (Radioactive Substances)
- Washington State Department of Natural Resources (Derelict Vessels)
- Washington State Department of Enterprise Services (Service Contracts)
- National Oceanic and Atmospheric Administration (Federal Marine Debris Lead)

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### **3.E. FEDERAL AGENCY RESPONSIBILITIES**

#### **National Oceanic and Atmospheric Administration (NOAA)**

- Federal lead for coordination of marine debris related activities, including Japan tsunami marine debris.
- Funds marine debris assessment and removal projects, mostly through grants.
- Collects sighting reports to [disasterdebris@noaa.gov](mailto:disasterdebris@noaa.gov), logs, and processes this data. *See Attachment B for the NOAA Shoreline Monitoring Program outline.*
- Provides modeling information for Japan tsunami marine debris movement at sea. Coordinates, funds, and manages the shoreline survey efforts. *See Attachment C for the NOAA Japan Tsunami Marine Debris Modeling Program outline.*
- Coordinates satellite detection of Japan tsunami marine debris at sea.
- Oversees and coordinates all response and cleanup activities within the Olympic Coast National Marine Sanctuary.
- Provides scientific support coordination to the Coast Guard.
- Collaborates with state, counties, tribes, and NGOs to provide outreach and address concerns.
- Supports the planning process in all potentially Japan tsunami marine debris impacted states.
- Provides outreach, coordination, material, and an informational website.

#### **U.S. Coast Guard**

- Works as a supporting agency to NOAA, and state and local agencies with a focus centered on notification and reporting of navigational hazards.
- Develops and issues, when appropriate, Broadcast Notices to mariners or mark obstructions to advise vessel traffic of potential hazards to navigation.
- Maintains a year-round, twenty-four hour telephone watch for the National Response Center at 1-800-424-8802.
- Enters telephonic reports into the Incident Reporting Information System (IRIS) and relays each report to appropriate federal and state agencies.
- Destroys or sinks hazards to navigation at sea, under certain circumstances.
- Supports outreach efforts

### **U.S. Environmental Protection Agency**

- Responds to oil and hazardous material releases or threats of release if they are on the inland side of the high tide line, to include tribal lands.
- Administers the ocean dumping program pursuant to the federal Marine Protection, Research, and Sanctuaries Act (MPRSA), under which transport of materials for ocean disposal is considered only when all other options have been exhausted.
- Ensures compliance with MPRSA general permit for transport and disposal of vessels in the ocean provided certain, specific conditions are met.
- Supports the U.S. Coast Guard and state for response to potentially hazardous material on the beach by providing air monitoring and sampling, including radiation monitoring and support.
- Provides technical support to tribes.
- Supports outreach efforts.

### **Olympic National Park**

- As a landowner, coordinates and manages marine debris assessment and cleanup within the park boundaries. *See Attachment D – Map of Federal-Owned Lands.*
- Issues permits for park shorelines where applicable.
- Reports to NOAA on quantities and location of marine debris surveyed and removed.
- Advises NOAA and the state if marine debris is beyond current capacities to remove.
- Supports outreach efforts.

### **U.S. Fish and Wildlife Service (USFWS)**

- Coordinates with NOAA and Washington State Department of Fish and Wildlife (WDFW) to minimize impacts to threatened and endangered species, migratory birds, and their habitats.
- As a landowner, coordinates and manages marine debris assessment and cleanup in national wildlife refuges.
- Issues Special Use Permits for national wildlife refuge shorelines where applicable.
- Reports to NOAA on quantities and location of marine debris surveyed and removed.
- Advises NOAA and the state if marine debris is beyond current capacities to remove.
- Supports outreach efforts.

### **U.S. Army Corps of Engineers**

- Responds to marine debris removal at sea when debris interferes with port or shipping activity.

### **Federal Emergency Management Agency**

- Provides funding and other support during declaration of emergency.
- Supports volunteer coordination.

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### **3.F. INDIAN TRIBES AND NATIONS**

#### **Hoh Tribe, Jamestown S’Klallam Tribe, Lower Elwha Tribe, Makah Tribe, Quileute Tribe, Quinault Nation, and Shoalwater Bay Tribe**

- As landowners, coordinates and manages marine debris assessment and cleanup in the area of their jurisdiction. *See Attachment D – Map of Federal-Owned Lands.*
- Coordinates with U.S. Environmental Protection Agency and U.S. Coast Guard for removal of hazardous marine debris items.
- Manages solid waste hauling and disposal within their jurisdictions.
- Reports to NOAA on quantities and location of marine debris surveyed and removed.
- Advises NOAA and the state if marine debris is beyond current capacities to remove.
- Supports outreach efforts.

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### **3.G. STATE AGENCY RESPONSIBILITIES**

#### **Washington State Department of Ecology**

- Serves as the lead state agency for communications with the public and media.
- Serves as the lead state agency for public outreach.
- Serves as the lead state agency for removal of large marine debris.
- Serves as the lead state agency for solid and waste management.
- Serves as the lead state response agency for oil spills and hazardous material releases.
- Houses the Washington Conservation Corps (WCC), which can be mobilized to assist with cleanup efforts.
- May serve as the conduit for federal funding, and provide limited state funding for cleanup operations.

#### **Washington State Department of Enterprise Services**

- Serves as the lead state agency for contracting with the private sector for specialized services such as large marine debris breakup and removal.
- May provide first responder capability for initial assessment of risk status of debris.
- Can assist with volunteer and donations management.

#### **Washington State Department of Fish and Wildlife**

- Coordinates with NOAA, U.S. Department of Ecology, U.S Coast Guard, and other spill responders to assess impacts of contaminant spills to wildlife.

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- Coordinates with NOAA and U.S. Fish and Wildlife Service, as appropriate, when federally listed species or designated critical habitat is adversely affected.
- Serves as the lead state agency for aquatic invasive species; provides expertise on risk assessment, prevention, and decontamination. Has decontamination equipment.
- May provide first responder capability for conducting initial assessment of risk status of debris as well as addressing public safety concerns.
- Coordinates debris removal with the five coastal counties--Clallam, Jefferson, Grays Harbor, Pacific, and Wahkiakum that have established Marine Resource Committees (MRCs).
- Supports outreach efforts.
- Responds to wildlife injuries and deaths caused by marine debris.
- Processes Hydraulic Project Approvals, when applicable.
- Contributes scientific expertise to long-term monitoring efforts.
- Administers Snowy Plover beach closures.

### **Washington State Department of Health**

- Serves as the lead state agency for radiation monitoring and detection.
- Serves as lead state agency for shellfish protection and commercial growing facilities.
- Collaborates with federal and state agencies on outreach and communication.
- Supports outreach efforts.

### **Washington State Military Department, Emergency Management Division**

- Serves as the state coordinating agency for marine debris activities.
- Serves as the state coordinating agency for supporting marine debris removal activities when local capacity is exceeded.
- Serves as the conduit for federal funding, if available.
- Serves as the lead state agency for communications to the State Legislature and elected officials.
- Coordinates and facilitates the drafting and updates of the State Marine Debris Coordination Plan.
- Coordinates communications among state agencies regarding marine debris operations.

### **Washington State Department of Natural Resources**

- Manages state owned or controlled submerged lands in front of the Seashore Conservation Area from the extreme low tide line out to three nautical miles offshore.
- Within Willapa Bay, Grays Harbor, and the Strait of Juan de Fuca, manages submerged lands and those tidelands that had not historically been sold into private ownership.
- Coordinates with state agencies, the National Park Service, the Olympic Coast National Marine Sanctuary, and tribal governments.

- Administers the state's Derelict Vessel Removal Program, under which Washington State Department of Natural Resources, Washington State Parks and Recreation Commission, Washington Department of Fish and Wildlife, local governments, and port districts all qualify as Authorized Public Entities that can take action against derelict vessels.
- All entities can use state contract 05511 for emergency and planned vessel removals.

#### **Washington State Office of Financial Management**

- Serves as the lead state agency for accessing the Governor's Emergency Fund as needed to implement the plan.
- Coordinates overall funding and budget requests for plan implementation.

#### **Washington State Parks and Recreation Commission**

- On state owned or controlled lands, manages the Seashore Conservation Area (high tide line westward to the extreme lowest water line from the Quinault Indian Reservation and south to the Cape Disappointment).
- Helps coordinate and manage marine debris assessment and cleanup along the outer coast.
- May provide initial response, emergency hazard assessment, and mitigation.
- Supports outreach efforts and cooperation with volunteer groups.

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### **3.H. LOCAL JURISDICTION RESPONSIBILITIES**

#### **County Emergency Management Offices**

- Acts as first responders to reports of debris on the beach. *See Attachment E – Map of Washington State Counties.*
- Provides information and outreach to the general public.
- Coordinates with the state and NOAA on outreach, and marine debris planning and response.
- Supports outreach efforts.
- Supports volunteer-based coastal cleanup.

#### **Marine Resources Committees**

- Supports volunteer-based coastal cleanup.
- Participates in shoreline monitoring.
- Supports outreach efforts.

#### **County Public Works and Local Environmental Health Jurisdictions**

- Assists with coordinating disposal of non-hazardous solid waste.
- Issues permits for temporary solid waste accumulation sites if necessary.
- Participates in development of local response plans.

- Provides information to state and federal agencies to facilitate Class 1 debris removal.
- Cooperates with state and federal programs to dispose of large volumes of Class 1 debris and Class 2 debris.

#### **Local Cities and Towns**

- Assists with coordinating disposal of non-hazardous solid waste.
- Issues permits for temporary solid waste accumulation sites if necessary.
- Participates in development of local response plans.
- Supports volunteer-based coastal cleanup.
- Provides information to state and federal agencies to facilitate Class 1 debris removal.
- Cooperates with state and federal programs to dispose of large volumes of Class 1 debris and Class 2 debris.

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#### **3.1. PRIVATE LANDOWNERS**

- As landowners, coordinates and manages routine marine debris on their lands.
- Private landowners should contact the Washington State Parks and Recreation Commission if Japan Tsunami Marine Debris on the outer coast becomes more than they can handle or if large marine debris needs assessment and removal. A message can be left at the Southwest Region Office (360) 725-9770 and/ or contact at NOAA [disasterdebris@noaa.gov](mailto:disasterdebris@noaa.gov) .
- If debris with invasive species is suspected, the landowner should contact the Washington State Department of Fish and Wildlife Aquatic Invasive Species Unit at 1-888-WDFW-AIS (1-888-933-9247).
- If debris containing hazardous materials is suspected, the landowner should call Washington State Department of Ecology at 1-800-OILS-911 (800-645-7911).

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#### **3.1. MARINE DEBRIS VOLUNTEER COORDINATION**

All coastal landowners are responsible for the coordination and management of marine debris assessment and cleanup efforts which include coordination and facilitation of effective management and utilization of organized and spontaneous, unaffiliated volunteers from the general public and private sector in marine debris cleanup efforts.

- Document existing volunteer organizations and networks currently conducting beach clean-ups.
- Include information on contacts, funding, coordination, disposal arrangements, and others as needed.
- Track the number of volunteers, hours spent, quantity and type of debris removed, and disposal costs.
- Establish and maintain a volunteer communications network disseminating volunteer resource needs information.

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- Develop a volunteer resource strategy based on events and times of high public uses for Washington State's coastal beaches which may include, but not limited to, the following:
  - Detection and Monitoring.
  - Small debris removal support.
  - Large debris removal support.
  - Habitat restoration and eradication of invasive species.
- Develop and conduct volunteer training programs and reference materials.
- Develop a response plan which includes volunteer management.
- When requested, participate in the development of state, federal, local, or tribal response plans.
- When requested, communicate volunteer group availability or volunteer assistance needed to other state, local, or tribes (dates, times, etc).

### B. Volunteer Reception Center and Tracking

- A Volunteer Reception Center (VRC) provides a place where large numbers of volunteers can be efficiently processed and referred to areas in need of their services. A VRC provides an efficient means to document volunteers being registered, requests for volunteers, VRC staff hours worked, and expenses incurred.
- Spontaneous or unaffiliated volunteers can be sent to the VRC where they can be temporarily registered during the period of service if they have filled out a temporary registration card which includes name, date of birth, and address, as well as information describing the function they will participated in, and the date and time they were involved. Once they are registered, they can report to and under the control and supervision of an authorized official.

### C. Volunteer Training

- Training programs and materials should be provided by the landowner and contain specific laws and regulations, processes, and procedures informing volunteers on what they can and cannot remove regarding size and type of debris and criteria for removal process such as hazardous materials, invasive species, as well as items of value and cultural significance.
- State agencies, counties, cities, towns, and tribes are encouraged to share training materials as well as coordinate training events when space and time permits.

### D. Volunteer Liability

- All land owners are responsible for the coordination and management of volunteers tasked under their authority to assist with marine debris cleanup efforts. Liability falls under each agency, jurisdiction, tribe, or private landowner's policies and procedures as set in each release of liability documentation signed by the volunteer.

## 4. INTERAGENCY COMMUNICATIONS

### Senior Steering Group

- Meets as needed, in person.
- Meets as needed, by phone or email, to discuss and coordinate issues.
- Receives reports from each responding state agency of their current activities and response.

### Marine Debris Response Task Force

- Meets as needed, by phone or email, to discuss and coordinate issues.
- Provides as needed reports of planning and response activities to the Senior Steering Group and Governor's Office.
- Shares information, when applicable, with neighboring states, West Coast Governors Alliance, and Pacific Coast Collaborative.

### National Oceanic and Atmospheric Administration (NOAA)

- Coordinates with the Japanese Consulate on tsunami-related debris identification and items that may have monetary or sentimental value.
- Modeling: Runs its GNOME model as needed (currently every three months) and posts it on its website at [http://marinedebris.noaa.gov/tsunamidebris/debris\\_model.html](http://marinedebris.noaa.gov/tsunamidebris/debris_model.html).
- Satellite detection: Collaborates with its partners to analyze satellite data to detect large floating debris items. This information will be shared with state agencies during regularly scheduled update meetings, or, if urgent, via email and phone.
- Shoreline monitoring: Information collected from shoreline monitoring will be shared on NOAA's website at <http://marinedebris.noaa.gov/tsunamidebris/monitoring.html> and during team updates.
- Sightings: Logs reports of tsunami debris sightings, and shares these with the Marine Debris Response Task Force during the update meetings.

## 5. FUNDING FOR RESPONSE ACTIVITIES

The Governor has allocated \$500,000 from the Governor's Emergency Fund for deposit into the Disaster Response Account, which is administered by the Washington State Military Department, to be used for marine debris related expenses. This funding is for potential emergencies only and must be pre-approved prior to use by the Washington Military Department, the Office of Financial Management, and the Governor's Office.

The \$50,000 NOAA grant to cover the removal of marine debris for cost incurred after September 1, 2012 was fully expended as of June 2015, and was administered the Washington State Military Department.

The Government of Japan has provided \$5 million to the US Government to fund Japan tsunami marine debris removal. Washington State has received \$250,000. This funding is administered by the Washington State Military Department.

The Military Department, in consultation with the Office of Financial Management, will pursue additional federal funding opportunities as needed and as available. Additional funding may also be pursued through the state budget process, as needed, for costs not covered through federal or other funds.

### **Criteria for Funding Requests**

*See Annex B – Financial Management Process*

## **6. PLAN DEVELOPMENT AND MAINTENANCE**

This coordination plan is a living document, and is subject to change as additional information becomes available and updates are needed. The plan will be maintained by Washington Military Department, Emergency Management Division (EMD), and will be updated as follows:

- Urgent updates: Suggested updates and changes to the plan that need to be implemented quickly will be discussed at the next scheduled Response Task Force (RTF) meeting and, if approved, implemented afterward.
- Routine changes: The plan will be reviewed annually. Suggestions and recommendations to improve the plan will be logged by EMD, and discussed at the next scheduled RTF meeting.
  - The RTF will forward revisions to the Senior Steering Group for their approval.
- The plan and subsequent versions will be posted on the Washington State Department of Ecology website at <http://marinedebris.wa.gov/>.

## 7. AUTHORITIES AND REFERENCES

### STATE

- [RCW 36.125 – Marine resource committees.](#)
- [RCW 38.52.105 – Disaster response account.](#)
- [RCW 43.220 – Washington conservation corps.](#)
- [RCW 70.98.050 – State radiation control agency.](#)
- [RCW 70.105D.070 – Toxics control accounts.](#)
- [RCW 79A.05.610 – Jurisdiction over and administration of area \(Seashore Conservation Area\).](#)
- [RCW 90.56 – Oil and hazardous substance spill prevention and response.](#)
- [WAC 173-303 – Dangerous waste regulations.](#)
- [WAC 173-303-050 – Department of ecology cleanup authority.](#)
- [WAC 173-303-900 – Public involvement and participation.](#)
- [WAC 173-350 – Solid waste handling standards.](#)

### FEDERAL

- [Marine Protection, Research, and Sanctuaries Act \(1972\)](#)
- [National Parks Service, 16 U.S.C. 1 \*et seq.\*](#)
- [Olympic Coast National Marine Sanctuary, 15 C.F.R. 922.150 \*et seq.\*](#)
- [Wilderness Act, 16 U.S.C. 1133–1136](#)

## ATTACHMENTS

### ATTACHMENT A – DEFINITIONS AND ABBREVIATIONS

**AIS:** Aquatic Invasive Species

**Affiliated Volunteer** – is any person attached to a recognized voluntary or nonprofit organization through membership and is trained for specific disaster response activities. Their relationship with the organization precedes the immediate disaster, and they are invited by that organization to become involved in a particular aspect of emergency management, response, and recovery.

**Class 1 debris**-This debris is similar to material that washes up on the beaches regularly. Debris in this class have the following characteristics, the pieces are small and easily picked up by one person and removed without excavation of the beach, these items are not toxic and are small enough to not support significant colonies of plants or animals. It is expected that this type debris will comprise the largest component of material washing up on the beaches. This would include bottles, buckets, floats, small pieces of timber (raw or processed), netting, anchor ropes, etc.

**Class 2 debris**-Materials in this class is generally larger requiring two people to pick it up or use of small equipment such as vehicles with mounted winches or lifts. This larger material is more likely to contain toxic materials and support larger communities of plants and animals. Debris may require special handling to prevent the release of invasive species and toxic material.

**Class 3 debris**-Material in this class will generally be large bulky, and heavy. This material is likely to contain toxic material and may have attached invasive species. Items in this class include fishing boats, buildings, docks, cars, large masses of netting and ropes that will require dismantlement and/or the use of heavy equipment to remove. A Hydraulic Project Approval (HPA) from Washington Department Fish and Wildlife (WDFW) is required prior to the removal of Class 3 debris from state and private lands.

**Marine Debris – Hazardous:** Containers containing chemicals, oil, or radiological materials. These items are usually marked as such.

**Marine Debris – Large:** Items found onshore that are too big to be carried by two or fewer persons.

**Marine Debris – Offshore:** Floating items large enough to create a hazard to navigation or recreational use.

**Marine Debris – Small and Routine:** Items typically removed during regular beach cleanup; includes items such as plastic and glass bottles, Styrofoam, floats, and fishing gear. These items are small enough for one person to carry.

**Marine Debris – Tsunami:** Debris directly-related to the March 11, 2011 Japan Tsunami.

**Modeling:** Use of data and software to estimate the movement of marine debris over time.

**Monitoring:** Use of established protocols to track marine debris types and quantities at regular intervals on selected beaches.

**NGO:** Non-governmental Organizations.

**NOAA:** National Oceanic and Atmospheric Administration.

**Outreach:** Communications and messaging for public to the public regarding marine debris issues.

**SCA:** Seashore Conservation Area.

**Unaffiliated Volunteer** – Any person who is not affiliated with a locally recognized volunteer organization but offers his or her help with the response, recovery efforts or both (also known as spontaneous volunteers). These volunteers may possess skills, training, or knowledge that can be useful in the response and recovery efforts. They are not officially invited to become involved but are motivated by a sudden desire to help others in times of trouble. They may come from within the affected area or from outside the area.

**Volunteer Organizations:** Non-profit organizations that routinely conduct beach clean-ups.

**ATTACHMENT B – NOAA SHORELINE MONITORING PROGRAM**

**1. Brief Overview of the NOAA Marine Debris Program Shoreline Survey**

Introduction

Marine debris monitoring programs are necessary to compare debris sources, amounts, locations, movement, and impacts. The NOAA has developed standardized marine debris shoreline survey protocols to facilitate regional and site-specific comparisons. To evaluate deposition of the Japan tsunami marine debris, NOAA collaborates with a number of partners, and supports survey of over 30 sites along the West Coast.

Types of Shoreline Surveys

There are two main types of shoreline surveys: accumulation and standing-stock surveys.

- Accumulation studies provide information on the rate of deposition (flux) of debris onto the shoreline. These studies are more suited to areas that have beach cleanups, as debris is removed from the entire length of shoreline during each site visit. This type of survey is more labor-intensive and is used to determine the rate of debris deposition (# of items per unit area, per unit time). Accumulation studies can also provide information about debris type and weight. These surveys cannot be used to measure the density of debris on the shoreline because removal of debris biases the amount of debris present during subsequent surveys.
- Standing-stock studies provide information on the amount and types of debris on the shoreline. Debris within discrete transects at the shoreline site is tallied during standing-stock surveys. This is a quick assessment of the total load of debris and is used to determine the density (# of items per unit area) of debris present. Debris density reflects the long-term balance between debris inputs and removal and is important to understanding the overall impact of debris.

Table 1. Salient characteristics of standing-stock and accumulation surveys.

<b>CHARACTERISTIC</b>	<b>STANDING-STOCK</b>	<b>ACCUMULATION</b>
Debris removed during surveys?	No	Yes
Time required per survey	Less	More
Length of shoreline site	100 m	100 m or longer
Is a set survey interval required (e.g., once per week or per month)?	Yes	Yes
Types of data that can be collected	<ul style="list-style-type: none"> <li>▪ Debris density (# of items / unit area)</li> <li>▪ Debris material types</li> </ul>	<ul style="list-style-type: none"> <li>▪ Debris deposition rate (# of items / unit area / unit time)</li> <li>▪ Debris material types</li> <li>▪ Debris weight</li> </ul>

### Shoreline Survey Data

Marine debris monitoring groups will collaborate with NOAA to compile their survey results. The NOAA will collect all the survey results data, store it in a database, analyze the data, and share it with its partners and the public.

If you would like more information on the shoreline monitoring program, please send an email to [MD.monitoring@noaa.gov](mailto:MD.monitoring@noaa.gov).

## **2. Specific Site Selection Criteria for Washington State**

- Relatively low public usage
- Sandy beach or pebble shoreline
- Clear, direct, year-round access
- No breakwaters, jetties, or other disruptions to near shore circulation
- Beach area at least 100 m in length parallel to the water
- No regular cleanup activities – or coordinate with events
- Landowner / manager permission
- Accessibility
- Recreational use
- Threatened or endangered species or habitat
- Closures
- National Environmental Policy Act (NEPA) concerns
- Proximity to headquarters and other survey sites
- Similarity to other locations – e.g. unique physical or geographic attributes or patterns of recreational use (better not to have unusual characteristics)

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## ATTACHMENT C – NOAA JAPAN TSUNAMI MARINE DEBRIS MODELING

### Lead Agency

National Oceanographic and Atmospheric Administration (NOAA)

### Supporting Agencies and Organizations

NOAA's

Office of Response and Restoration

Marine Debris Program

Emergency Response Division

National Center for Environmental Prediction

Office of Oceanic and Atmospheric Research

National Environmental Satellite, Data and Information Service

National Marine Fisheries Service

U.S. Navy

University of Washington<sup>1</sup>

Oregon State University

University of Hawaii

University of Kyoto

### Goal

Predict the movement of the Japan tsunami marine debris over space and time, and provide this information to decision makers and the public to inform planning efforts for debris management and response as well as minimization of economic and environmental impacts.

### Objectives

- Use state-of-the-art technology and knowledge to provide modeling output
- Communicate results to stakeholders (decision makers, media, public)
- Update modeling output regularly
- Inform modeling results and efforts with at-sea observations
- Encourage reporting of major/significant debris sightings
- Present model outputs and efforts to the public to effectively increase understanding of debris movement

### Specific Tasks

1. Communicate and coordinate with monitoring and removal groups to clarify their needs from modeling outputs in terms of frequency and accuracy in time and space.
2. Assemble, synthesize and prioritize potential modeling actions, including clear information on what could be done (deliverables) when (timeline) and what would be needed (resources).

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• <sup>1</sup> Universities throughout the United States have been consulted for opportunity to provide input to the modeling approach. The universities listed here have been active in their own modeling efforts.

## Washington State Marine Debris Coordination Plan April 2014

3. Work with regional modelers to identify information they need to receive from monitoring and removal activities fields, format, and frequency of data receipt.
  - a. Coordinate with monitoring and sighting group on process/mechanisms to receive necessary information.
4. Communicate modeling capabilities, limitations and outputs to public, stakeholders and operational groups. These outputs will inform operational planning, and also build public understanding of the process.

### References

1. GNOME
  - a. Tsunami Debris Modeling\_GNOME\_20120320.pdf - Description of GNOME modeling effort approach
  - b. JTMD GNOME Model Graphic 04-18-12.pdf – Example GNOME visualization
2. SCUD
  - a. SCUD\_Manual.pdf – Paper description of University of Hawaii International Pacific Research Center SCUD model
3. OSCURS
  - a. Getting to Know OSCURS.pdf – Introduction to OSCURS model technique and applications.
4. Detection
  - a. JTMD\_ERMA\_20120421.pdf – Output of voluntary sightings to date, along with confirmed monitoring sites and satellite detection areas, centralized in the Emergency Response Management Application (ERMA).



**ATTACHMENT E – MAPS OF WASHINGTON STATE AND COASTAL COUNTIES**

(Maps courtesy of [www.ecy.wa.gov](http://www.ecy.wa.gov), [www.epa.wa.gov](http://www.epa.wa.gov), & [www.ofm.wa.gov](http://www.ofm.wa.gov))



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**ATTACHMENT F – ADDITIONAL INFORMATION AND RESOURCES**

**Report Debris Sightings to NOAA:** [DisasterDebris@noaa.gov](mailto:DisasterDebris@noaa.gov) or  
**Washington State Emergency Operations Officer (SEOO):** 1-800-258-5990  
**Report Oil Spills or Hazardous Materials:** 1-800-OILS-911 (1-800-645-7911)  
**On federal or tribal land call:** [DisasterDebris@noaa.gov](mailto:DisasterDebris@noaa.gov) or National Response Center at 1-800-424-8802

**Report Aquatic Invasive Species:** <http://www.wdfw.wa.gov/ais/reporting/>  
**And Call: 1-888-WDFWAIS** (1-888-933-9247)  
Washington State Department of Ecology  
<http://marinedebris.wa.gov/>  
Washington State Department of Health  
<http://www.doh.wa.gov/CommunityandEnvironment/Radiation/FukushimaUpdate.aspx>  
Washington State Department of Fish and Wildlife  
<http://www.wdfw.wa.gov/tsunami/>

Japan Tsunami Marine Debris Joint Information Center (JIC)  
<http://disasterdebris.wordpress.com/about/>

NOAA Marine Debris Program  
<http://marinedebris.noaa.gov/tsunamidebris/>

NOAA Shoreline Monitoring Program: <http://marinedebris.noaa.gov/japan-tsunami-marine-debris/tsunami-debris-monitoring>

NOAA Modeling Program  
[http://marinedebris.noaa.gov/tsunamidebris/debris\\_model.html](http://marinedebris.noaa.gov/tsunamidebris/debris_model.html)

Government of Japan Frequently Asked Questions  
[http://www.kantei.go.jp/jp/singi/kaiyou/hyouryuu/qanda\\_eng.html](http://www.kantei.go.jp/jp/singi/kaiyou/hyouryuu/qanda_eng.html)

## ANNEX A STATE AGENCY, GROUP-SPECIFIC AND COUNTY PLANS

State agency, group-specific and county plans that support the Washington State Marine Debris Coordination Plan and are published separately.

### **WDFW Marine Debris Response Annex to 2012 Washington State Response Plan**

Washington Department of Fish published the Marine Debris Response Annex To Washington State Response Plan (now “Coordination Plan”) on August 1, 2012.

The plan is located at <http://wdfw.wa.gov/publications/01431/>. As the lead State agency chartered to protect and conserve natural resources, WDFW has an obligation to design protocols to mitigate emergent threats to supporting ecosystems. This plan is applicable to WDFW employees and WDFW volunteers. The activities and procedures prescribed within it are for application in public access areas. These protocols may be extended to support Federal partners and upon private lands when appropriate permissions and agreements have been granted in accordance with law. The duration of these activities is considered long term (ten years).

## ANNEX B FINANCIAL MANAGEMENT PROCESS

### Marine Debris Funding Access Process

Revised - May 2015

*(Coordinated effort between the Washington Department of Ecology and the Washington Military Department)*

- 1) All requests must address potential marine debris Removal and/or Aquatic Invasive Species (AIS) related to Tsunami debris.
    - a) All requests for expenditure must be pre-approved, unless activities are part of an approved contract or project.
    - b) Activities completed without preapproval will not be eligible for reimbursement.
  - 2) Agencies are to submit requests, in the form of structured projects, to the State Marine Debris Program Manager, Kristin Ramos, at the Military Department's Emergency Management Division (EMD)
    - a) EMD State Marine Debris Program Manager will determine "best fit" for potential available funding and forward to NOAA for approval
      - i) \$50,000 grant (expires 6/30/2015)
      - ii) Japanese gift (expires 1/30/2016)
        - (1) Criteria for the \$250,000 Japanese Government Gift:
          - (a) Project Description
            - (i) Activity Category (specify all applicable):
              1. Removal
              2. Disposal
              3. Supplies and equipment
              4. Invasive species mitigation
              5. Surveying and monitoring: Staff activity redirected from other duties to Japan tsunami marine debris (JTMD) work
- 3) Once a project and funding amount has been approved, the requesting agency will submit invoices, through their finance department, directly to the State Marine Debris Program Manager for reimbursement, with all expenditures aligning with approved statement of work
  - a) The State Marine Debris Program Manager will review and forward to the Military Department's Financial Management Division for payment.
  - b) The State Marine Debris Program Manager will track all expenses and maintain current balances for both funding streams
  - c) Submitting agencies will provide progress reports as outlined in their contracts or approved projects

- 4) No invoices will be authorized for payment without an approved project or executed contract on file.
- 5) To access funds through the Disaster Response Account (DRA):
  - a) Request must be emergency in nature
  - b) Request submitted in writing, outlining impacts to the environment, economy, or other hazards
  - c) Request is submitted to the Washington Military Department (WMD), Emergency Management Division (EMD), Director's Office
  - d) Request is forwarded to the Office of Financial Management (OFM)
    - i) If denied, an appeal may be submitted, addressing all points outlined in the initial denial
  - e) Following completion of the activity (no advance funding):
    - i) Approved responding agency submits invoices and supporting receipts and other documentation to EMD
    - ii) EMD reviews for compliance with approval and forwards to MIL State Finance
    - iii) MIL State Finance sends payment to approved requesting agency

END OF DOCUMENT