Department of Environmental Conservation

Division of Environmental Health

Tsunami Marine Debris Status Report for Calendar Year 2014

Prepared February 2015

Background

Following the March 2011 Tohoku earthquake and tsunami, the Government of Japan gifted $5 million to the United States to be administered by NOAA and shared by the states impacted by tsunami debris: Alaska, Hawaii, Washington, Oregon, and California. In accordance with a 2012 administrative order, the Department of Environmental Conservation coordinates the activities of state agencies relating to tsunami marine debris and is the primary point of contact for NOAA and other federal agencies.

Staffing and Funding

Following the procedures in the 2013 Memorandum of Agreement between the Department and NOAA, in 2013-2014 the Department submitted three Statements of Work (SOWs) requesting tsunami marine debris removal funds from NOAA. With the $1 million in funding received in response to the first two SOWs, the Department supported nine debris projects in 2014. In late 2014, a third SOW request for an additional $900,000 was approved by NOAA, and a fourth request for $600,000 was being prepared.

In addition to the Government of Japan funds, other sources of funding have been used in Alaska's response to tsunami-generated marine debris cleanup operations. In 2012, the Department utilized $200,000 in General Funds to award a contract for an aerial survey of approximately 2500 miles of Alaska's shoreline (from Southeast up through the Gulf of Alaska and across to the Alaska Peninsula) to assess the impact of the marine debris. Following the aerial survey, in early fall 2012 the Department applied for and received a $50,000 grant from NOAA for tsunami-generated marine debris removal on approximately 25 miles of shoreline in Prince William Sound. Additionally, Alaska received a $21,564 donation from Hokkaido Development Engineering Center and International Association for Cold Region Development to use for tsunami debris removal.

General funds have been used to support a long-term non-permanent Program Coordinator II position in the Department's Environmental Health Division to work exclusively on the tsunami debris project. This coordinator, a lawyer with extensive experience in rural and coastal Alaska, works seasonally and as needed to lead and coordinate the administrative requirements to insure that the State of Alaska is meeting its responsibilities regarding tsunami-generated marine debris in Alaska. Other Divisions in the Department assist in cleanup efforts related to petroleum products and hazardous marine debris.

Procurement

In an initial Request for Proposal (RFP) process in 2013, the Department approved three contractors for tsunami marine debris removal and three for aerial surveys. These contractors are eligible to respond to location-specific Project RFPs for term contracts addressing marine debris removal and aerial surveys for a period of five years.

In 2014, nine marine debris removal Project RFPs and an aerial survey Project RFP were issued and awarded. Additionally, an RFP for a large multi-region debris removal effort using helicopters and a barge was issued in late 2014. That project and several additional local tsunami debris removal project RFPs are planned for the 2015 field season.

2014 Aerial Survey Accomplishments

From May through September 2014, the aerial survey contractor flew shorelines and collected photographic images from Cape Yakataga through Prince William Sound, the Kenai Peninsula, the Barren Islands, the Kodiak archipelago, the southern Alaska Peninsula, and portions of Bristol Bay. Flights to collect images from shorelines in Southeast Alaska will begin in mid-March 2015.

Each image is individually analyzed, assigned keywords to describe the image content, and rated for debris quantity from zero to five. This analysis is performed in a manner consistent with the analysis done on the images from the 2012 survey, which allows for effective comparison of debris quantity, composition, and movement since 2012. The contractor sends the entire image database to NOAA for hosting on the NOAA site. The images are then linked to the interactive map on the State of Alaska website. The 2014 survey added 5,254 images, bringing the total number of survey images on the map to 12,868.

2014 Marine Debris Removal Project Accomplishments

Marine debris removal operations were conducted in numerous locations in Alaska in 2014 supported by a variety of funding sources. Nine projects were funded with NOAA (Government of Japan) tsunami funding administered by the Department.

- Sitka Sound Science Center (SSSC) removed 5.75 tons of marine debris from the shorelines of Kruzof Island
- Alaska Marine Stewardship Foundation (AMSF), operating through a subcontractor, removed 1.5 tons of marine debris in a project on Afognak and Shuyak Islands
- Gulf of Alaska Keeper (GoAK), a joint venture with Island Trails Network and Aerial Technologies, collected marine debris on Kayak Island (63 tons), Montague Island (68 tons), in various areas near Kodiak (18 tons), at Gore Point (10 tons), on Gravina Island (3.25 tons) and at Okalee Spit (6 tons). In these Department-funded tsunami projects, GoAK collected a total of 168.25 tons of debris

Several additional GoAK cleanup projects funded through other sources (the Alaska Legislature, the Exxon Valdez Oil Spill Trustee Council, and NOAA grants) resulted in the collection of an additional 91 tons of debris from other shorelines.

Due to the complexity of the State procurement and NOAA permitting processes, the subsequent loss of the early weeks of the 2014 field season, and the unavailability of landfill disposal options in several areas of Alaska, approximately 252 tons of the debris collected by GoAK (funded through all sources) was consolidated in super sacks and bundles and cached safely on the shorelines or in a Kodiak storage yard for removal in 2015. This debris will be removed and transported to a final disposal site in the major airlift/barge operation planned for the 2015 field season. Other state, federal and tribal entities may participate in this operation and share in the costs.

In this airlift/barge operation, for which an RFP was posted in late 2014, one or more barges or vessels will move along the Alaska coastline and pick up large quantities of tsunami marine debris from in many locations. Loading would be done by helicopter at locations where it is dangerous to remove debris by water. At other sites the debris may be moved to the barge by skiffs or smaller landing craft. The barge will transport the debris that is currently cached, as well as some of the debris that will be collected in the 2015 field season, and deliver it to a site outside Alaska for disposal and recycling. This is necessary because numerous communities throughout Alaska are refusing or severely limiting the acceptance of marine debris in local landfills due to the volume and the composition of the debris.

Reporting

Contractors submit progress reports and comply with reporting protocols for HAZMAT, invasive species, and debris collection. Forms and protocols were developed in consultation with experienced debris removal organizations, the Department's HAZMAT personnel, and NOAA. The information in the reports submitted by the aerial survey contractor and the debris removal contractors is included in quarterly reports to NOAA and used to support the state's requests for additional funding.

Outreach

Marine debris is a regular topic in Alaska Forum on the Environment (AFE) sessions held in February in Anchorage. NOAA and Department staff regularly present project updates, and other educational presentations are made by local marine debris organizations including the contractors authorized to respond to marine debris removal RFPs. Website updates and additions to the Department's GIS map are an ongoing effort.

Better awareness by all entities of all debris activities – past, present, and planned – will enable NOAA, state departments, communities, and other funders to plan and coordinate marine debris removal activities. This will maximize the effectiveness of the limited resources, address debris in the most critical locations, and contribute to safety and effectiveness of all debris removal activities.