

Agency: Commerce, Community and Economic Development**Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Alaska Marine Stewardship Foundation****Federal Tax ID: 680567328****Project Title:****Project Type: Other**

Alaska Marine Stewardship Foundation - Removing Marine Debris from the 2011 Tohoku Tsunami

State Funding Requested: \$187,000**House District: Statewide (1-40)**

Future Funding May Be Requested

Brief Project Description:

Remove marine debris from Kruzof Island that received large deposits of marine debris including debris from the 2011 Tohoku tsunami.

Funding Plan:

Total Project Cost:	\$187,000
Funding Already Secured:	(\$0)
FY2015 State Funding Request:	<u>(\$187,000)</u>
Project Deficit:	\$0

Funding Details:

The Alaska Marine Stewardship Foundation (AMSF) has used a portion of funding from a FY 12 Department of Commerce, Community and Economic Development grant (10-CIAP-008) to fund projects within the tsunami affected area (\$225,683 in 2012 and \$258,613 in 2013). That grant does not have any cleanup operational funds left for 2014.

Funding was provided by the Alaska Legislature to Gulf of Alaska Keeper in 2013 but no cleanups were conducted in these areas that are in this request.

Detailed Project Description and Justification:

Marine Debris in Alaska is one of the most visible environmental problems of our time. But the good news is that local Alaskans with relatively low technology have the ability to solve it. Almost 3.0 million documented pounds of debris have been removed from Alaska's coast, most of that prior to the arrival of any of the debris generated by the 2011 Tohoku tsunami. With a million visitors per year coming to Southeast Alaska on cruise ships, this area of the state is particularly high profile. While the State has funded marine debris clean up in the Central Gulf Coast, this proposal asks legislators to provide \$750,000 for an efficient, effective debris clean-up projects using community-based experts from Kayak Island to Dixon Entrance and the Shelikof side of Afognak and Shuyak Islands where tsunami debris has now accumulated.

Clearly, marine debris is damaging to fish and wildlife and pollutes our reputation for pristine beaches and natural resources. Much of the existing Alaska coastal marine debris is generated by land based activities, originating from outside of Alaska, as well as from maritime activities such as shipping and fishing. Alarmingly, now Alaska is faced with Japanese tsunami debris which is expected to bring monumental amounts of trash to our shores. A recent Seagrant report projects 75% of the debris from the tsunami that makes landfall will do so in Alaska, an estimated 30 to 375 million lbs. The report projects that the greatest densities of debris would be deposited along the Gulf of Alaska coast primarily at all of the great capes which

has been validated by State of Alaska aerial surveys.

The Alaska Marine Stewardship Foundation (AMSF), a 501 (c) 3 non profit, has been conducting marine debris cleanup since 2003. We have the longest history of coordinating effective large scale marine debris projects. Our success lies in our ability to work with community-based local fishermen and non-profits for cleanup. Since 2003 we've built strong partnerships with state and federal agencies to carefully catalog and clean thousands of miles of coastline.

During the summer of 2012, the Alaska Department of Environmental Conservation (ADEC) conducted an aerial survey from the southern tip of Southeast Alaska to the middle of the Alaskan Peninsula. That aerial survey documented large volumes of buoys and foams from the tsunami as well as debris deposited prior to the tsunami in agreement with the projections from the Washington Sea Grant. The more than 8,000 photographs from the ADEC survey were subjectively rated on a scale of 1 to 5 (densest) for density of debris. The National Oceanic and Atmospheric Administration's Marine Debris Program (NOAA) worked with the ADEC to produce maps of the surveyed area that density depicted the density in colors with red being an area with heavy deposits of debris and green, lighter deposits. The areas of the Eastern Gulf were rated among the highest accumulations of debris for the State. Additionally, they were among the top ten priorities by a subsequent ADEC and NOAA workshop attended by state, federal and tribal governments as well as Non-Governmental Organizations including AMSF.

During 2013, the AMSF contracted several local contractors to clean portions of some of the highly prioritized areas. More than 43 metric tons of debris were removed in less than two week periods and significant debris remains and more is coming. This work is relatively inexpensive and efficient because local contractors can take advantage of good weather opportunities.

This marine debris clean up will be conducted by Sitka Sound Science Center to clean high priority areas along Kayak Island, Kruzof Island,

Project Timeline:

The project would begin in August 2014 and continue until December 2015.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

NA

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No

Removing Marine Debris from the 2011 Tohoku Tsunami from four Gulf of Alaska Locations

Alaska Marine Stewardship Foundation

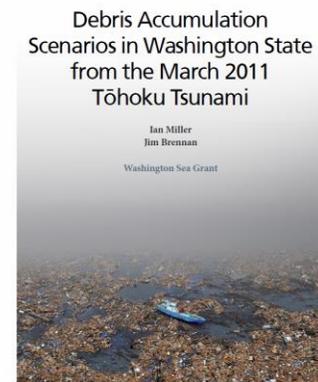
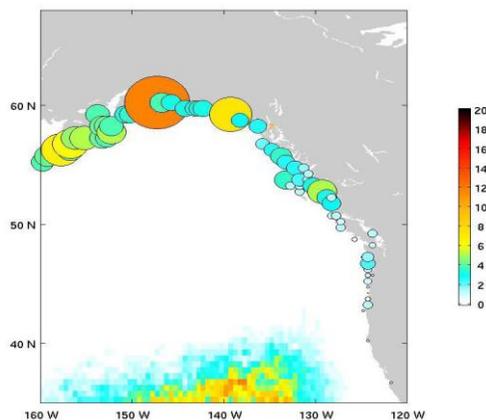
2014 CAPSIS Attachment

In March 2011, a tsunami at Tohoku Japan washed 5 million tons of material from homes and businesses into the Pacific Ocean. An estimated 1.5 million tons was expected to float and be swept into the North Pacific Gyre where it could make its way to the west coast of North America. The debris was not expected to arrive until 2013, however, the Alaska Marine Stewardship Foundation (AMSF) began to receive reports of unusual debris in November of 2011. A monitoring program was established by AMSF utilizing experienced marine debris cleanup contractors. Throughout the winter, on an opportunistic basis, the type and volume or weight of debris thought to be from the tsunami was recorded and it was found that significant amounts of debris were appearing on the beaches near Craig, Sitka and Yakutat

(<http://www.alaskamsf.org/wp-content/uploads/2013/02/Results-of-the-2012-MCAF-Japanese-Tsunami-Monitoring-Program.pdf>). Once summer arrived, reports from beachcombers, fishermen and contractors verified the observations. In particular, large buoys, both foam and plastic, and insulation foam from buildings and appliances were noted.

A report by the Washington Sea Grant program, Debris Accumulation Scenarios in Washington State from the March 2011 Tohoku Tsunami, projected that 75% of the debris from the tsunami that make landfall will do so in Alaska, an estimated 30 to 375 million lbs.

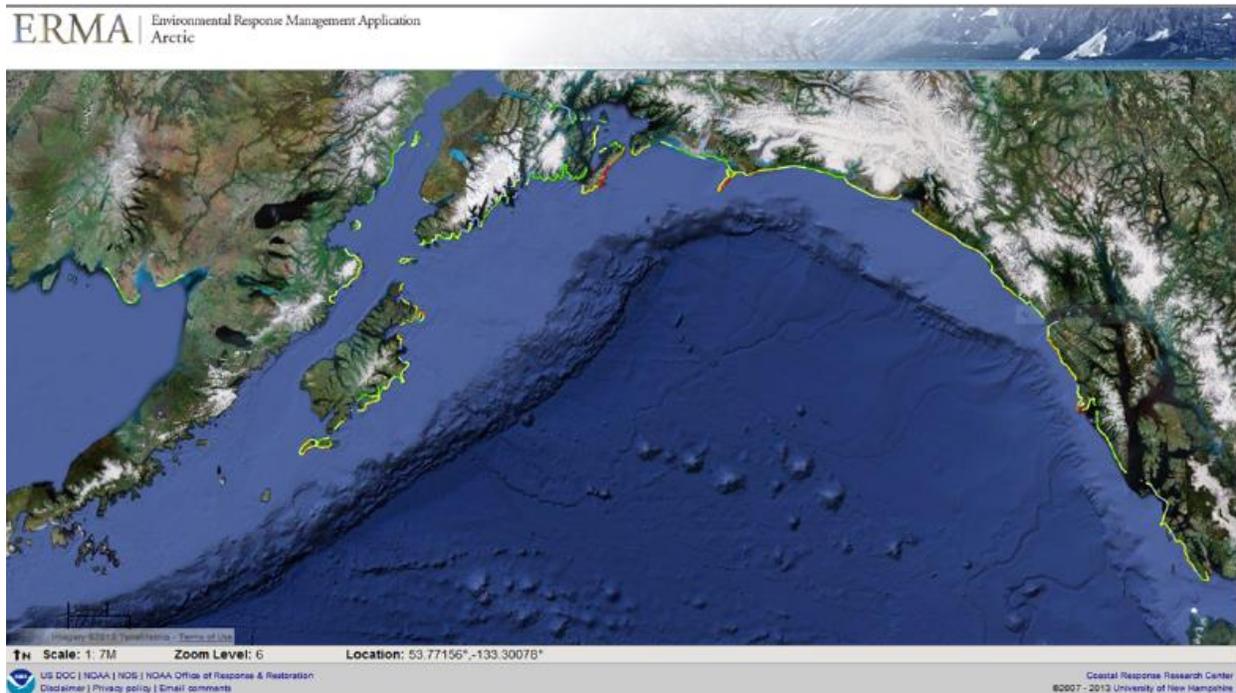
They projected that the greatest densities of debris would be deposited along the Gulf of Alaska coast primarily at all of the great capes.



During the summer of 2012, the Alaska Department of Environmental Conservation conducted an aerial survey from the southern tip of Southeast Alaska to the middle of the Alaskan Peninsula. It documented large volumes of buoys and foams from the tsunami as well as debris deposited prior to the tsunami in agreement with the projections from the Washington Sea Grant.

It was now clear that there were significant deposits of marine debris in the surveyed area and likely in other areas not surveyed, much of which came from the Tohoku tsunami.

The more than 8,000 photographs from the ADEC survey were subjectively rated on a scale of 1 to 5 (densest) for density of debris by a single person. The National Oceanic and Atmospheric Administration's Marine Debris Program (NOAA) worked with the ADEC to produce maps of the surveyed area that density depicted the density in colors with red being an area with heavy deposits of debris and green, lighter deposits. It did not differentiate between tsunami and other debris.



Again, it confirmed that the major deposits of marine debris were on the great capes and the shores perpendicular to the dominant winds of the Gulf of Alaska (the northern shores). Many miles of coast were inundated with debris and the problem was how to determine the areas in which to begin cleanups.

The ADEC and NOAA sponsored a workshop to prioritize the order in which areas should be cleaned based on the density of debris and the importance of the area for fish and wildlife and cultural uses. They brought together a number of participants from state, federal and tribal governments as well as Non-Governmental Organizations (NGO) for the purpose of ranking the rankings. The Director of AMSF participated in these discussions. The result was a paper titled Proceedings: Alaska Marine Debris 2013 Shoreline Prioritization Workshop January 17, 2013.

The report was published in early 2013 as a working document. Federal and State agencies have been refining estimates of fish and wildlife and cultural importance of the areas. However, these revisions have not resulted in any significant changes to the ranking of the areas. In particular, there were nine areas that ranked as the most important for immediate cleanup.



PROCEEDINGS:

ALASKA MARINE DEBRIS

2013 SHORELINE PRIORITIZATION WORKSHOP

January 17, 2013

Report Issued April 2013

NOTE: This document was prepared by NOAA and the Alaska Department of Environmental Conservation based on hard work and input from prioritization workshop participants who represented many agencies and entities. A list of workshop participants is at Appendix B on pages 28-29.

Workshop Priority Ranking	Segment Name	Segment Region
1	Kayak Island	Eastern Gulf of Alaska
2	Outer Montague	Prince William Sound
3	Outer Hinchinbrook	Prince William Sound
4	Shuyak and North Afognak Islands (to Pillar Cape)	Kodiak Archipelago
5	Outer Island to Gore Point (including Gore Point)	Central Gulf of Alaska
6	Cape Yakataga to Kayak Island	Eastern Gulf of Alaska
7	Cape Muzon to Suemez Island	Southeast Alaska
8	Baker, Noyes, Lulu, San Fernando and Western Prince of Wales Islands	Southeast Alaska
9	Kruzof Island	Southeast Alaska

During 2013, the AMSF contracted several local community based contractors to clean portions of some of the highly prioritized areas. Based on project reports submitted to AMSF as a part of the contract, a total of 85,505 lbs of debris, much of it from the tsunami were removed.

2013 AMSF Contracted Prioritized Tsunami Cleanups

Segment	Priority	Contractor	Result
Cape Yakataga to Kayak Island	6	Cape St Elias Lightkeepers Association	54,616 lbs
Baker, Noyes, Lulu, San Fernando and Western Prince of Wales	8	Island Charters	19,370 lbs (ongoing)
Kruzof Island	9	Sitka Sound Science Center	11,821 lbs
Total			85,805 lbs

The Island Charters project is continuing during the first part of 2014, however, the estimated cost for these three projects is \$150,000. A large amount of debris remains in these areas and AMSF would like to continue the work it has begun in these areas as well as at the confluence of Shuyak and Shelikof Straits where a large amount of debris has passed through Shuyak Strait to cover beaches on Afognak and Shuyak Islands. AMSF is requesting a total of \$750,000 to continue this work. The money would be distributed to the contractors as follows:

Segment	Priority	Contractor	Cost
Kayak Island	1	Cape St Elias Lightkeepers Assn	\$400,000
Baker, Noyes, Lulu, San Fernando and Western Prince of Wales	8	Island Charters	\$75,000
Kruzof Island	9	Sitka Sound Science Center	\$200,000
Afognak and Shuyak Islands		Blue Fox Bay Lodge	\$75,000
Total			\$750,000

Contractor Profiles

Sitka Sound Science Center – SSSC is a nonprofit 501c(3) based in Sitka. They have been conducting beach cleanup of marine debris and tsunami debris along the outer coast of Baranof, Chichagof and Kruzof Islands in partnership with the F/V Cherokee since 2008. They have extensive experience in the difficult terrain of Kruzof Island, Priority area 9. Together they have removed over 80,000 of debris and repurposed recyclable floats, Styrofoam buoys, and nets. The SSSC crew found the first invasive species reported in Alaska from tsunami debris, Megabalanus rosa found at Yamani Cove in the summer of 2013. They also have an extensive outreach and education program reaching all Sitka school district students, 10,000 summer visitors annually, and other audiences through Sitka Whalefest and visiting field courses.



Areas of highest accumulation (red line) from ariel survey and top 10 priority for cleanup in the eastern Gulf of Alaska (Kayak, Kruzof, western Prince of Wales) with examples from Kruzof.

Cape St Elias Lightkeepers Association – Based in in Cordova, the Cape St Elias Lightkeepers Association (CSELA) is a non-profit that maintains the Cape St Elias Lighthouse on Kayak Island. The principal contractor also operates Orca Adventure Lodge in Cordova. They are lifelong Alaskans who have been based along the Gulf of Alaska coast. They conducted an AMSF sponsored cleanup from Cape Suckling to Seal River that removed 54,616 lbs of debris in 2013. They used a combination of their own fixed wing aircraft, helicopter and landing craft to collect and transport the debris where it was cataloged and recycled and/or disposed of. They are very familiar with all the difficulties of working on Kayak island where they conducted a small cleanup in 2012. They are uniquely qualified to conduct work on Kayak Island

Island Charters – Island Charters is owned by Kathy Peavey of Craig Alaska. They have been conducting marine debris cleanups in Priority area 8 since 2009. They have commercial fished and recreated in the area for a much longer period. They have removed more than 80,000 lbs of debris during this time.

Blue Fox Bay Lodge – Blue Fox Bay Lodge is located near the confluence of Shuyak and Shelikof Straits. The operator, Colleen Rankin, is a long time resident of the area. Prior to contracting with AMSF for marine debris cleanups she had been conducting small scale ones on her own. Her year around outdoor interests allow her to keep track of debris levels on many beaches and to plan her cleanups accordingly when weather allows.

AMSF would provide the project supervision at 10% of the costs (included in the \$750,000 request) and would ensure: that all permitting is provided, all debris is sorted and weighed, data is entered into the AMSF Alaska statewide database and provide detailed reports for the Legislature.

Additional information on AMSF as well as reports from projects can be found on the website at:

www.alaskamsf.org

or by contacting:

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