

# **Gulf of Alaska Keeper**

## **EVOSTC**

### **Harbor Protection and Marine Restoration**

#### **Marine Debris Removal Grant Proposal with**

#### **Public Outreach Addendum**

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# Gulf of Alaska Keeper Marine Debris Removal Proposal

## Background Information

### *A. Team Leader, Organizational Structure*

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Gulf of Alaska Keeper (GoAK) manages large MD cleanups in the oil spill footprint area every year. GoAK submits comprehensive cleanup and financial reports semi-annually to NOAA and annually to the Marine Conservation Alliance Foundation, two of GoAK's primary federal grantors. We also provide reports to all of our private and corporate sponsors. All reports will be posted on our website for public access. There will be a blog on the website that the public can interact with. Chris Pallister is the President of Gulf of Alaska Keeper. Chris has organized and managed GoAK's large marine debris projects the past 9 years. He is also responsible for volunteer coordination, fund raising, grant writing and management, and all reporting obligations.

### *B. Organizational Experience*

GoAK is a non-profit dedicated to combating the marine debris (MD) problem in Prince William Sound and along the northern Gulf of Alaska (GOA) coast. GoAK is now in its **10th season** of organizing and conducting large-scale MD cleanup projects within Prince William Sound (PWS) and outside PWS along the Gulf of Alaska Kenai Peninsula shoreline all the way to Port Chatham at the southwest tip of the Kenai Peninsula. All of the large cleanups GoAK has completed to date were within the Exxon Valdez oil spill footprint. Since 2002, GoAK members, crews, and hundreds of volunteers have cleaned over **850 miles** of heavily fouled shoreline, and removed over **600,000 pounds** of primarily plastic MD in the process. The mouths of countless anadromous streams have been cleaned of choking nets and lines, easing access to miles of spawning and rearing habitat. Hundreds of miles of sensitive coastal habitat have been rehabilitated.

GoAK's Board meets each fall to review the season cleanup progress and new MD monitoring and survey data. The Board and our Scientific Advisers function as a Technical Panel for assessing cleanup projects. They prioritize cleanup projects for the following seasons based on density of debris in particular areas, critical habitat issues, and cleanup resources. We attend conferences, read the Marine Debris Weekly Report, and review other marine debris literature from around the world. We stay technologically up to date, but so far there is little new technology that is useful on Gulf of Alaska beaches for removing marine debris.

GoAK purposefully delayed tackling technically difficult cleanup projects until we had several years of cleanup experience behind us. We can now proudly say we have cleaned some of the most challenging beaches in the area.

### ***C. Organizational Personnel***

In 2005, GoAK formally organized as an environmental conservation non-profit. GoAK's 5 board members serve in a volunteer capacity. We rely on six Scientific Advisers. The

GoAK member resumes are as follows:

#### ***Chris Pallister, JD, LLM:***

- BS Natural Science, University of Alaska Anchorage 1989; JD, Environmental and Natural Science Law Certificate, Lewis and Clark College School of Law, 1993; LLM Law and Marine Affairs, University of Washington School of Law, 1994; Dean John K. Knauss National Sea Grant Fellowship recipient, 1995 –1996
- Environmental and Natural Resources Aid, Office of U.S. Senator Frank Murkowski, 1995-1996
- Founder of Prince William Sound Keeper, 2000; Founder of Gulf of Alaska Keeper 2005; Founder of annual PWS Volunteer Beach Cleanup
- 9 years of experience conducting large-scale marine debris cleanups in PWS and along the Gulf of Alaska Coast.
- Principal organizer and coordinator of Prince William Sound Volunteer Beach Cleanups from 2002 to present
- Field Manager, PWS Volunteer Beach Cleanup, 2002 to present
- President, Gulf of Alaska Keeper, 2005 to present.
- Annual participant in NOAA survey of Exxon Valdez Oil Spill residual stranded oil.
- Owner and operator of three motor vessels berthed in Whittier, Alaska, a western PWS community.
- Vice President of the Whittier Small Boat Owners Association
- Coast Guard Auxiliary, Whittier Flotilla, 2002 to present
- Staff Officer, Aids to Navigation, Whittier Coast Guard Auxiliary, 2009 to present
- Assistant Environmental and Safety Staff Officer, Whittier Coast Guard Auxiliary, 2004 to present
- 28 years of experience in PWS and on the Kenai Peninsula coast.

#### ***Gerry Sanger***

- B.S., Fisheries Biology, Humboldt State University, and a year of post-graduate oceanography and biology courses at the University of Washington
- Wildlife and Marine Biologist, Retired, Alaska Department of Fish and Wildlife

- 31-year Alaskan and year-round resident of Whittier
- Licensed by the U. S. Coast Guard to operate passenger-carrying vessels since 1987. Currently holds a 100-ton Master's License
- 30 years of personal exploration and 21 years operating a sightseeing business in PWS
- Tours with the Smithsonian Institution, the National Marine Fisheries Service, and the National Marine Mammal Laboratory
- Participated in projects on plankton, oceanography, Northern Fur Seals and seabirds, and his fieldwork took him to the open North Pacific Ocean, the Aleutians, the Bering Sea, and coastal Gulf of Alaska.
- 9 years with the U. S. Fish and Wildlife Service in Alaska. Gerry specialized on ecological studies of seabirds, and most recently with seabird population surveys in Prince William Sound after the 1989 *Exxon Valdez* oil spill
- 9 years experience participating in PWS marine debris cleanups.
- Gulf of Alaska Board member since 2005.

### ***Ted Raynor***

- 48 year old lifelong Alaskan
- Co-founder of Gulf of Alaska Keeper and board member since 2005
- Professional MD Remediation cleanup field manager
- Co-founder Prince William Sound Volunteer Beach Cleanup
- Alaska walkabout Charters, Whittier Alaska, 1993 to present, specializing in fishing charters, water taxi services, and tours
- Commercial fisherman 1980-1993
- Field Manager of Gulf of Alaska marine debris projects 2006 to present
- 9 year participant in large PWS marine debris cleanup projects
- Licensed boat captain
- Computer technology, Charter College, 2004-2006

### ***Allan Tigert***

- Owner, Symbiotes, Inc., computer specialist, software consultant
- Trustee, Exxon Valdez Oil Spill Recreational Plaintiff Fish and Wildlife Habitat Enhancement Trust Fund
- 28 years of Prince William Sound experience
- 5-year participant in PWS Beach Volunteer Cleanup
- GoAK board member 2005 to present

### ***Paul Cates***

- Co-founder Gulf of Alaska Keeper and board member since 2005
- 27 years Prince William Sound experience
- 5-year PWS Volunteer Beach Cleanup participant
- Co-owner Alaska River and Ski Tours
- Member Whittier Coast Guard Auxiliary
- Federal Express 1985 to present

### ***Erik Pallister***

- Crew Manager, Gulf of Alaska Keeper MD cleanup projects, 2007 to present
- Captain, MV C~KEPR
- BS Geology, Montana State 2007
- 25 years experience in PWS and along the Kenai Peninsula coast
- 6 years experience with Gulf of Alaska Keeper's PWS volunteer cleanup projects and 4 years with the professional cleanup projects

### ***Scientific Advisers***

- Dr. John Whitney, PhD., Geophysicist, NOAA
- Dr. John Kennish, PhD, Chemistry, Environmental Chemistry, UAA
- Dr. Carey Bagdassarian, PhD., Chemistry and Conservation Biologist, College of William and Mary
- Rich McCrea, Forester, Forest Management Plan Consultant
- Dr. Patty Zwollo, PhD., Fish Immunologist, College of William and Mary
- Dr. Natalie Dawson, PhD., Conservation Geneticist, Alaska Pacific University

## **D. Public Support**

GoAK has achieved impressive MD removal results with strong broad-based public support. The Marine Conservation Alliance Foundation has provided annual cleanup grants since 2006. NOAA has also provided annual cleanup grants since 2007. In addition, corporate and private donors have provided money and supplies to support the cleanups. Early each season, GoAK organizes and conducts a large volunteer cleanup in PWS with up to 100 volunteers and 12 vessels spending 3 to 4 days cleaning selected beaches. The United States Forest Service Glacier Ranger District provides crews and vessels to support the annual volunteer cleanup. Many volunteers and vessel owners have participated in every volunteer cleanup since they began in 2002. The Whittier charter fleet members donate several charter vessels each season to support the volunteer cleanup. Up to 10 private vessels with crews are donated annually to transport volunteers and otherwise support the volunteer cleanup each season. Volunteers also often accompany the GoAK professional cleanup. In addition, each season 8 to 10 volunteers spend 1 week re-cleaning 12 marine debris monitoring beaches in PWS, categorizing and quantifying the collected MD. Volunteers have conducted marine debris surveys on well over 1000 miles of shoreline since 2006. The communities of Whittier, Homer, and Seward donate facilities and services to support the various cleanup projects. Each season approximately 4500 to 5400 hours of volunteer labor and 55 to 75 days of

vessel use are donated to the cleanup projects, in-kind donations annually worth in excess of \$170,000 to 200,000.

### **E. Professional Cleanups**

In addition to the annual volunteer efforts, GoAK conducts professional cleanups each season of between 60 and 90 days duration. 7 to 10 workers conduct these cleanups. Many of our professional crew have worked on the professional cleanups since they began in 2006. They have accumulated an immense amount of field experience. GoAK's field manager was a commercial fisherman and fishing charter operator in the oil spill footprint area for nearly 20 years before dedicating himself to the MD problem. Our crew manager has operated vessels and managed the field crew since the professional projects started. Both have decades of experience in PWS and along the Kenai Peninsula. We require that all of our crew be First Aid and CPR trained. All of them are highly competent outdoorsmen and experienced boaters. They are all strongly committed to removing MD.

Because of our highly competent, experienced crew, the professional cleanups are very thorough and efficient, annually accounting for over 85% of the total MD collected and miles of coast cleaned. GoAK crews generally stay in the field for at least 30 days at a time and for a total of up to 90 field days between early May and early September of each year. Because of adverse weather and strong surf, the window of opportunity for conducting MD cleanups in the northern GOA area is generally limited to the period from early May until early September of each season.

### **F. Efficiency**

Simply put, nobody has as much experience as GoAK does removing MD from Gulf of Alaska beaches. Each year our volunteers and professional crew spend more than 10,000 hours working on marine debris projects. We have cleaned hundreds of miles more shoreline, and removed far more tons of debris, than any other Alaskan group that has actual hands-on experience cleaning beaches. And we have done it all with tremendous community involvement and nearly zero overhead. All our grant-funded projects have been matched at least 1 to 1 with other contributions, mostly through public in-kind contributions. GoAK donates all management and staff time. Over 99% of the money we raise for these projects goes directly to cleaning beaches. There are no management fees, indirect costs, travel costs, profits, and no money spent on public outreach.

## **G. Public Outreach**

That is not to say that GoAK doesn't do public outreach. In fact we have a robust public outreach program. Foremost is the outstanding volunteer involvement we organize every year. Volunteers annually spend thousands of hours helping GoAK with marine debris projects. For getting the message across, nothing is better than exposing volunteers to the marine debris problem and then having them return to their respective communities to become emissaries regarding the MD problem.

As further public outreach we have involved the press in many of our projects. We have had articles in the New York Times Magazine, Alaska Outdoors, Alaska Business News, the Anchorage Daily News, and the Homer News. In-depth programs about GoAK cleanup projects have been on NPR and local television programs. Two well-known authors recently published books with significant portions about the marine debris cleanup efforts in the PWS and at Gore Point. Furthermore, GoAK members give public presentation on marine debris issues several times a year. GoAK will give 4 presentations at the upcoming International Marine Debris Conference in March.

The unfortunate truth is that over well 95% of the marine debris in the footprint area is of foreign. Local communities and fishermen contribute very little to the problem. Because most of the marine debris, both old and newly accumulating, is from foreign or offshore sources, it may not make much sense to spend a great deal of time and money educating the local public about a situation they did not cause, nor can prevent. Ultimately, this is problem of international scope, but one that has serious local impacts.

## **H. Website**

GoAK recently had a new website designed; a donation by a prominent New York based website designer. We anticipate this new site will be functional by March 15, 2011. The new interactive site will feature all the marine debris projects conducted since 2002. All the annual cleanup reports will be on the site. There will be thousands of marine-debris related photos. All the MD survey data and monitoring data will be featured. And all of it will be geo-referenced. We will link our site to the Marine Conservation Alliance Foundation and NOAA websites. These websites have excellent opportunity to educate not only local residents, but also foreign contributors to the marine debris problem. NOAA could easily provide MD related content that could be linked to both the GoAK and MCAF sites. There is no need to spend a significant amount of money to construct a



new marine debris website when two are already thoroughly covering the problem in the oil spill footprint area.

## **G. Scope of Previous GoAK Cleanup Projects**

### **1. *Marine Debris Removal Projects***

In PWS, GoAK has now cleaned all of the beaches on the Knight Island archipelago, the Naked Island group, Culross Island and in Culross Passage, from Light House Point to Eshamy Bay, Perry Island, Axel Lind Island, the Dutch Group, and Green Island. In addition, nearly all of Smith Island has been cleaned as have Evans and Elrington Islands. During parts of the past three summers, GoAK cleaned extraordinarily dirty beaches in Zaikof Bay and Rocky Bay at the northern end of Montague Island. Moreover, since 2007, GoAK crews have cleaned extremely fouled beaches on the southwest Kenai Peninsula coast from Port Chatham to Yalik Bay just north of Nuka Bay. We have worked cooperatively with the landowners Chugach Alaska Corporation, Port Graham Corporation, Chenega Corporation, the United States Forest Service and the State of Alaska to conduct these large MD cleanup projects.

With the exception of southwest PWS and the Gulf of Alaska coast between Nuka Bay and PWS, and the Barren Islands, nearly all of the oil spill footprint area has been cleaned of MD at least once by GoAK. In 2011, GoAK will clean LaTouche Island, and re-clean the eastern side of the Knight Island archipelago and the Naked Island group. GoAK will also re-clean Gore Point beaches and some heavily impacted beaches between Nuka Bay and Resurrection Bay the summer of 2011. Consequently, by the end of the 2011 season, nearly all of area that suffered serious impacts in the oil spill foot print area will have been cleaned of MD other than the two areas proposed for cleaning by GoAK in 2012 and 2013. With the completion of the Southwest PWS/Kenai Peninsula project in 2012 and the Barren Islands project in 2013, an initial cleanup in the footprint area, excepting western Shelikof Strait, will nearly be complete.

### **2. *Marine Debris Monitoring***

GoAK is now in its 5<sup>th</sup> season of collecting MD accumulation data from 13 MD monitoring plots in PWS and 3 at Gore Point. MD at each of these monitoring beaches is carefully collected, categorized by type of debris and origin, and weighed. From data collected during the MD monitoring project, MD accumulation rates, the origin of the MD, and the relative impact of MD in specific areas are assessed. GoAK uses survey and monitoring data to plan and prioritize the annual cleanup projects. Data from GoAK's MD monitoring program demonstrates that MD collector beaches on eastern Knight Island and the Naked

Island group have been heavily impacted by newly accumulated MD since they were initially cleaned in 2006 and 2007. We plan to re-clean those to areas in 2011. The ½-mile long Gore Point East Beach monitoring site accumulated 5 tons of new debris over the 2009/10 winter. The monitoring sites in PWS and at Gore Point have allowed GoAK to become quickly aware area-wide marine debris spill events. In 2008 and 2009, identical liter plastic pesticide bottles began to appear on all of our monitoring sites from Peak Island in central PWS to Gore Point. This summer, the same chemical bottles began to appear on beaches in Southeast Alaska. Clearly, there was a significant unreported spill of hazardous chemicals in the North Pacific that ultimately traveled to our beaches. This past summer, 2-foot square sheets of 1/8 inch plastic began to show up on all the monitoring sites. Clearly another spill of plastic items occurred somewhere in the North Pacific. Our MD monitoring sites are providing Information that would not normally be recognized.

### ***3. Marine Debris Surveys***

GoAK has conducted thousands of miles of marine debris surveys on all of the oil spill foot print area with the exception of the tip of the Kodiak Island group and western Shelikof Straits. Volunteers spent thousands of hours over many months and seasons conducting the surveys. Although GoAK did not survey on Kodiak or in Shelikof Strait, ShoreZone Alaska has already mapped those coastlines with high-resolution camera. GoAK has learned from years of conducting marine debris surveys that the presence logs on a beach is a strong indicator of a significant amount of plastic marine debris. ShoreZone imagery clearly shows larger debris, but not necessarily smaller debris. But what ShoreZone clearly show is concentrations of logs on beaches from which marine debris concentrations can be easily extrapolated by GoAK. Because this information is available, it is unnecessary to do additional marine debris surveys in the oil spill footprint area. GoAK also surveyed the Gulf of Alaska Coast of Montague Island twice in 2006 and 2007. It is clearly the dirtiest shoreline near the oil spill footprint.

### ***4. Marine Debris Toxicity Research***

GoAK partnered with scientists from the University of Alaska Anchorage and the College of William and Mary to conduct research into the toxicity and ecological pervasiveness of compounds from plastic MD. UAA is researching the specific levels of plastic compounds present in the marine environment. The College of William and Mary is researching immune system responses of salmonids to environmental contaminants, primarily to the chemicals components of plastic marine debris.

## **5. Net Recycling**

In the PWs and Kenai Peninsula area, most of the marine debris collected from a beach that has never been cleaned before is by both weight and volume, old derelict legacy fishing gear, much of it decades old. GoAK has removed linen nets that are over 50 years old from Montague Island beaches. Mostly, the nets tend to be heavy offshore and foreign trawl, cargo and high seas driftnets. On some beaches, the total amount of old commercial fishing gear may exceed 80%, particular on those beaches facing the Gulf. Heavy plastic and aluminum mid-water trawl floats contribute a great deal of weight. However, there are millions of plastic items that represent every facet of our modern plastic society on the beaches. And more of it is coming. Data from GoAK's MD monitoring study indicates that very little of the newly accumulating MD is of local origin, likely far less than 5%. There is very little evidence that local commercial fishermen contribute more than a very minor portion to the debris. Our MD monitoring data strongly indicates that most of the newly accumulated debris is from foreign sources or transoceanic shipping.

Because most of the newly accumulating debris is from foreign sources, creating a net-recycling program will likely be very inefficient. The fact is, local fishermen do not intentionally discard their nets in the water. They may occasionally accidentally lose a net, but those nets become prohibitively expensive to recycle because they have to be recovered which is very expensive and they quickly become very dirty which makes recycling problematic. For the past 10 years, GoAK has closely studied different net recycling technologies including bio-mass burners and net to fuel converters. We have also looked at more traditional net recycling strategies. However, all of these programs have one major flaw...they are far too expensive and too inefficient. Removing nets from remote Alaska beaches, sorting them, cleaning them, and then transporting them to a recycling location is very labor intensive and expensive. Nobody is willing to pay the actual cost of doing so.

GoAK has also repeatedly explored the possibility of creating a program which would allow local fishermen to dispose of their old nets without cost in specified disposal sites. The nets could possibly then be recycled more efficiently. However, besides the cost issue, such a program raises a couple of important issues. For instance, nets on a boat are not marine debris. Granted, if the nets are discarded overboard they become marine debris, but only after an illegal act has occurred. The question then becomes whether it is proper to fund an activity by establishing a program to encourage a person to act as they should anyway. Should money earmarked for marine debris removal be used to create a recycling program for material that is not marine debris and legally should never

be? If so, then a funded program to induce boaters not to throw their garbage overboard should be created in each port in the spill area. The prevention program could pay boaters in arriving vessels to dispose of their trash. That may be a better use of marine debris prevention funds because data collected from GoAK MD monitoring plots the past five years establishes that most of the insignificant locally generated MD in PWS is recreational garbage such as food containers and shotgun shells. The monitoring data clearly demonstrates that local fishermen are not significantly contributing to the marine debris issue in PWS, and certainly not by improperly discarding their nets overboard. In fact, we find the contrary to be true. There is a large commercial driftnet and set net presence in PWS. GoAK has found that these fishermen are strongly protective of the coastal environment. Marine debris plays havoc with their gear and with salmon spawning streams, so they do all they can to mitigate it. The local fishermen are already doing a great deal to combat marine debris. Consequently, GoAK does not believe that a local net-recycling program would be a cost effective use of MD removal funds.

### ***6. Other Recycling***

GoAK has removed millions of pieces of marine debris from the oil footprint area the past nine years. We are forever cognizant of the recycling issue. It is such a waste to dump all this plastic in a landfill. However, for the reasons touched upon above, large-scale recycling of mixed, dirty, plastic debris removed from remote beaches is simply not feasible. We have studied this issue endlessly, discussing it with experts throughout the country. It is just too expensive and there is a good chance of creating additional environmental problems such as air and water pollution through recycling efforts. However, GoAK sorts out all debris items that can be reused such as fishing floats, intact lines, ship buoys and fenders, buckets, fuel tanks, etc., and gives them to commercial fishermen or residents of the communities where we deliver the debris. We have given away thousands of valuable floats and other items over the years. Unfortunately, much less than 5% of the total debris we collect is recycled in this manner.

## **Specific Marine Debris Removal Project Proposals**

GoAK is submitting a comprehensive 3-part marine debris cleanup program. We understand that the call of this grant is to provide \$1,000,000 of funding for

marine debris removal over a 2-year period. Immediately following are two proposed cleanup projects for 2012 and 2013 that request a total EVOSTC funding level of **\$730,000**. The proposed projects for 2012 and 2013 have also been included as part of the marine debris proposal submitted to EVOSTC by the NOAA team. However, at the urging of Peter Murphy, NOAA's MD Regional Coordinator (**see attached letter from Peter Murphy, NOAA MD Regional Coordinator, pg.54**), and after consultation with EVOSTC staff, GoAK is also submitting an alternative proposal. This alternative proposal includes the proposed 2012 and 2013 removal projects, plus a request for a third year of funding for a project in 2014. We hope this proposal is considered carefully. These three projects in total request **\$1,015,000** in EVOSTC funding. Over a three year period, GoAK can match EVOSTC funding at more than a 1 to 1 level. Stretching the funding over three years allows GoAK to raise more matching funds to help clean another 20 miles of horribly fouled coast and remove an additional 80 to 100 tons of plastic marine debris. We submit these projects with the intention that if EVOSTC decides not to fund a third year project, then it would consider the 2012 and 2013 projects as the complete proposal. For that reason, we have submitted complete project budgets and descriptions for each individual cleanup season.

## **I. 2012 Marine Debris Removal Project**

### ***Southwest Prince William Sound/Kenai Peninsula 2012 Marine Debris Cleanup Project Narrative***

From early May 2012 through August of 2012, Gulf of Alaska Keeper (GoAK) proposes spending 90 days to clean marine debris from beaches on islands and the western mainland of southwestern Prince William Sound (PWS). At the conclusion of August 2011, at the end of the GoAK's 10<sup>th</sup> season of cleaning beaches in PWS, nearly all shorelines within PWS impacted by the Exxon Valdez oil spill will, with the exception of the shorelines in southwest PWS from Prince of Wales Passage west, have been cleaned of marine debris at least once. GoAK proposes to clean the remaining dirty beaches within PWS and also fouled beaches along the Gulf of Alaska shoreline from the mouth of Port Bainbridge west to Cape Resurrection. In addition, during the summer of 2012 GoAK proposes to clean marine-debris collector beaches in the Kenai Fjords National Park (KFNP) from the eastern side of the Aialik Peninsula to the eastern side of McCarty Fiord. GoAK requests **\$352,700 EVOSTC** funding for this project.

### ***A. Southwest Prince William Sound Cleanup***

Beginning in early May of 2012, GoAK proposes to clean marine debris from all of the shorelines in southwestern PWS that still need cleaning. GoAK thoroughly surveyed this area in 2007. While there are hundreds of miles of shoreline in the remaining area, much of it is clean. Debris is concentrated in certain general areas and collector beaches. Much of the shoreline in southwest PWS is steep, rocky, and swept clean of debris. However, GoAK projects that 35 tons of debris will be removed from the remaining fouled beaches in this area.

Debris extraction methodology in southwest PWS will simply consist of putting cleanup workers onshore to pick up debris. Smaller debris will be placed in large garbage bags. Larger pieces of debris and the garbage bags will be transferred to a landing craft that will then haul the debris to Whittier to be placed in dumpsters. The dumpsters will then be transported to the Anchorage landfill for disposal. Southwest PWS is **not** within the Kenai Peninsula Borough.

Therefore, debris from this area cannot be placed in the Kenai Peninsula Borough landfill and must be hauled to Whittier. However, the Gulf of Alaska Kenai Peninsula shoreline just west of PWS and Puget Bay is within the Kenai Peninsula Borough. Debris collected anywhere in the Kenai Peninsula Borough can be disposed of in the Kenai Peninsula Borough landfill. Consequently, marine debris from the area between PWS and Resurrection Bay, and the Kenai Fjords National Park can be transferred to Seward for eventual disposal in the Kenai Peninsula Borough.

### ***B. Port Bainbridge to Resurrection Bay Cleanup***

Immediately following the southwest PWS cleanup, GoAK will begin cleaning beaches west of PWS in the Gulf of Alaska. The shoreline from Port Bainbridge in the southwest corner of PWS to Cape Resurrection along the exposed northern shore of the Gulf of Alaska presents difficult cleanup challenges. Beaches at the head of Whidbey Bay, Johnstone Bay, Horsehead Spit, and other smaller collector beaches are heavily fouled with marine debris. Unfortunately, none of these areas provide safe anchorages for cleanup support vessels. These beaches all open directly onto the Gulf of Alaska. Cleanup crews will generally need to access these areas from anchorages in Puget Bay and Day Harbor. To avoid time consuming and expensive vessel transport of workers back and forth each day, cleanup workers may camp for several days at a time on these particular beaches. However, if the weather cooperates for several days at a time, which is highly possible during May through July, cleanup support

vessels can be moved to these unprotected beaches, thereby facilitating the cleanup project.

Because of the lack of protection and distinct possibility of being unable to approach these Gulf of Alaska beaches with a landing craft, the collected marine debris will be staged in Super Sacks for later transfer by helicopter to a landing craft stationed offshore or anchored in a protected area. We project that 25 tons of marine debris will be removed from this relatively short section of coastline. Once this shoreline is cleaned, the cleanup crew will move to the more protected shoreline of the KFNP.

### ***C. Kenai Fjords National Park Project***

From 2007 through 2010, GoAK cleaned all of the Kenai Peninsula Gulf of Alaska shoreline from Port Chatham at the southwest end of the Kenai Peninsula through Yalik Bay at the head of Nuka Bay up to the Kenai Fjords National Park (KFNP) boundary. During those four seasons, over 140 tons of marine debris were removed from over 150 miles of sensitive coastal habitat. While the marine debris problem in the KFNP isn't as severe as that in the area previously cleaned, there are areas in the Park that need cleaning. We project that 20 tons of plastic debris will be removed from the collector beaches within the Park

The KFNP shoreline is generally very steep and rocky. Because of that, most marine debris along this shoreline is concentrated in discrete pockets. The Park has sensitive natural and cultural resources along its shoreline. As such, cleaning in the Park will require close coordination with, and prior approval from, the Park. In addition, a full time archaeologist must accompany the cleanup crew on any cleanups within the Park in order to protect cultural and natural resources.

Cleanup methodology within the Park will simply consist of workers onshore removing marine debris by hand. Debris will be transferred to a landing craft and transported to Seward for disposal. The beaches will be accessed with inflatable skiffs and the crew will be especially attuned to the need to minimize wildlife disturbance within the Park.

### ***D. Volunteer Cleanup Projects***

In addition to the proposed EVOSTC-funded professional cleanup in 2012, GoAK will also organize and conduct a large 4-day volunteer cleanup in the PWS area from Eshamy Bay to Icy Bay, including Chenega Island. 100 volunteers and 12 donated vessels will participate in this cleanup effort. GoAK will also continue its ongoing marine debris monitoring project. 13 designated monitoring beaches will

be cleaned for the 6<sup>th</sup> consecutive year. 8 volunteers and 3 donated vessels will accompany 2 GoAK members on this weeklong project.

### ***E. Marine Debris Toxicity Research Project***

GoAK will also continue its ongoing collaboration with scientist from the University of Alaska Anchorage and the College of William and Mary to investigate the impacts of chemical compounds leached from plastic marine debris on the coastal environment. A GoAK member along with 2 researchers will spend two weeks traveling to and collecting samples from fish, water, and sediments at Elizabeth Island Lake, a salmon rearing lake inundated with marine debris driven into the coastal lake and outlet stream by storms. GoAK removed 11 tons of marine debris from this small lake and stream in 2010. Millions of small broken plastic bits and plastic feedstock pellets still litter the lake. Unknown chemicals from untold numbers of MD containers that ended up in the lake and were crushed in the lake's floating logjam still pollute the lake. 420 volunteer hours and 14 days of vessel use will be donated to this MD research project. *For more information on Elizabeth Island Lake, see the attached 2010 GoAK NOAA Preliminary Cleanup Report, pages 17-21.*



Plastic MD in Elizabeth Island Lake

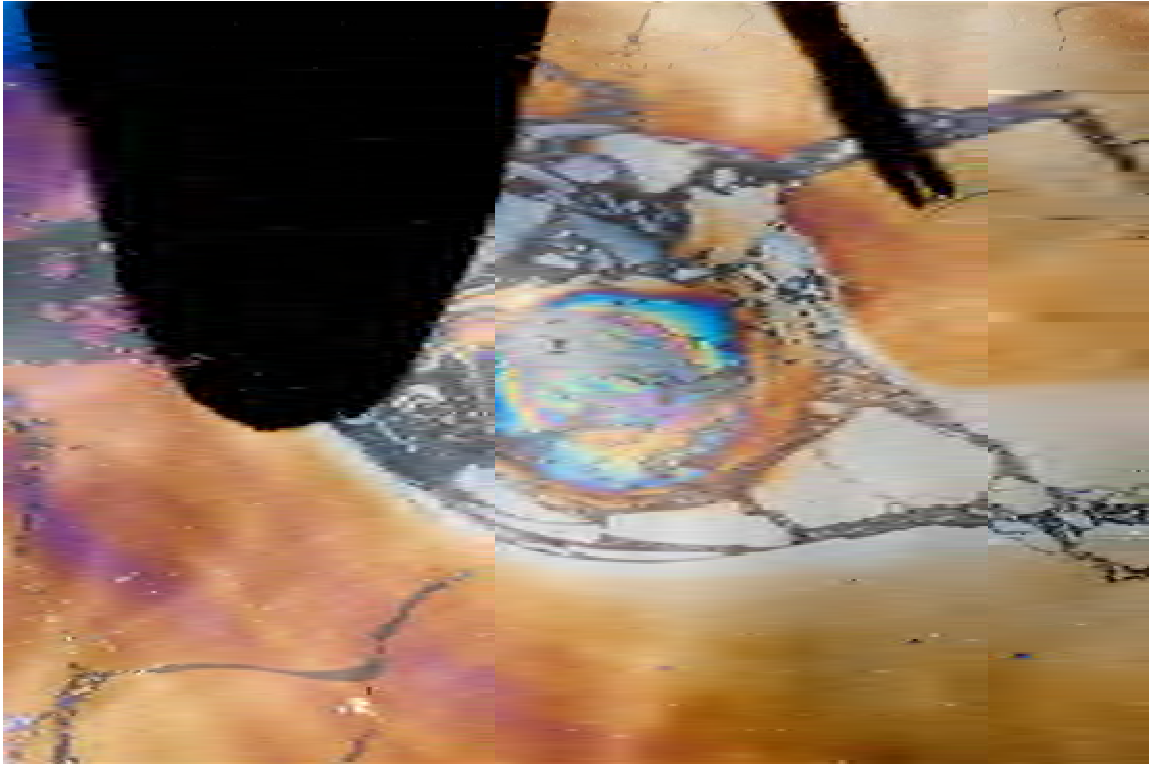




Plastic Feedstock Beads from Elizabeth Lake

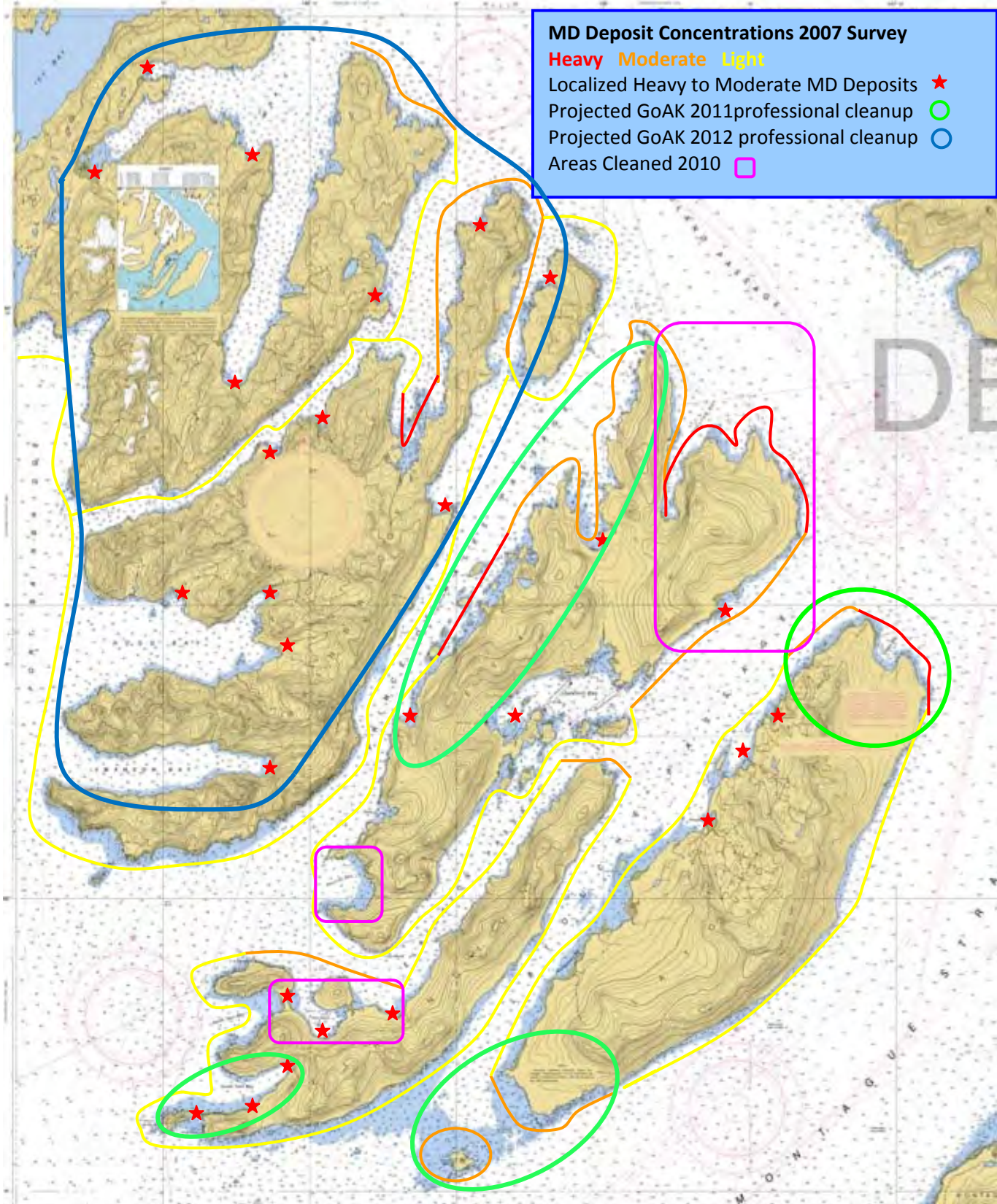


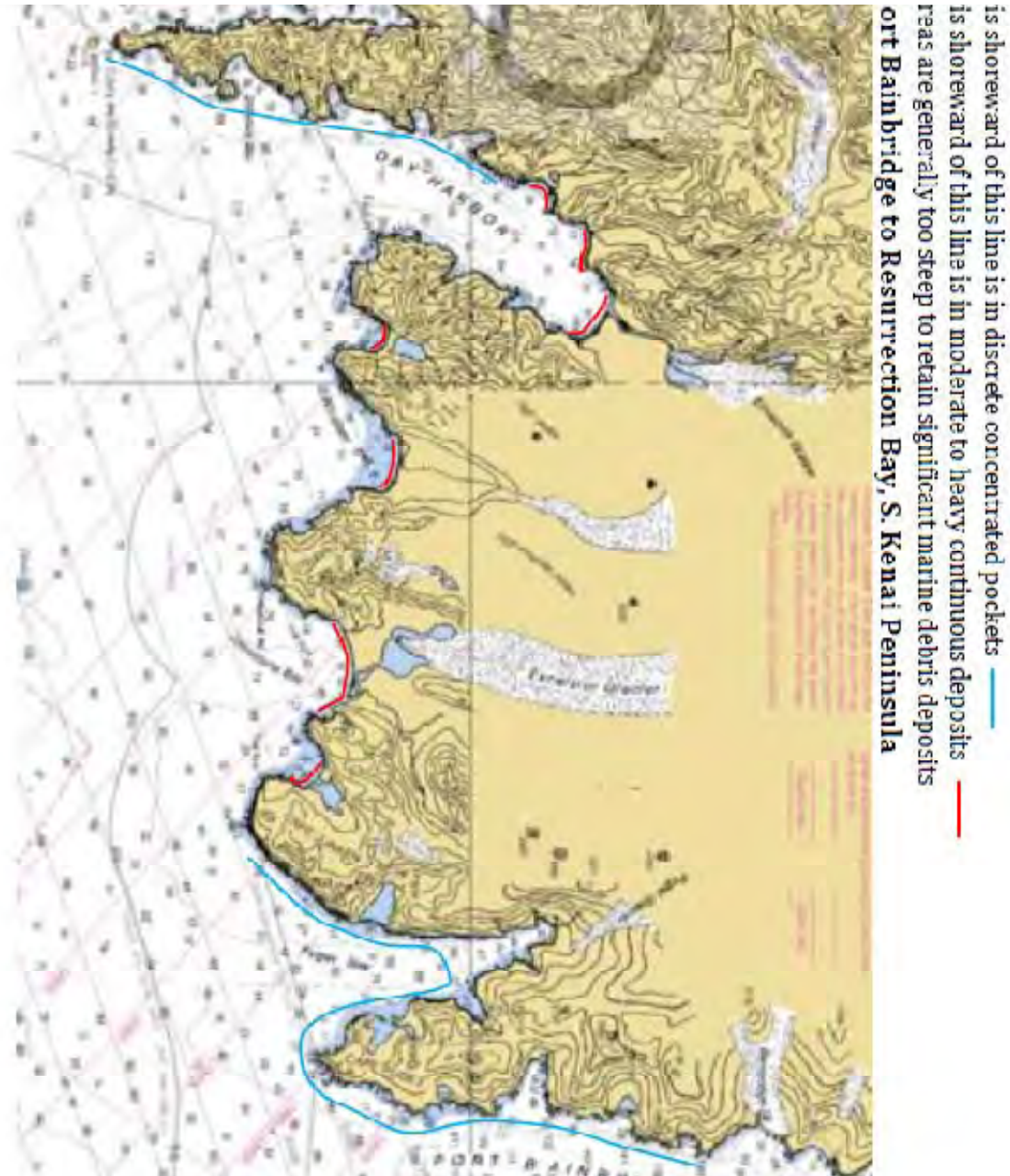
MD Caused Chemical Sheen in Elizabeth Island Lake



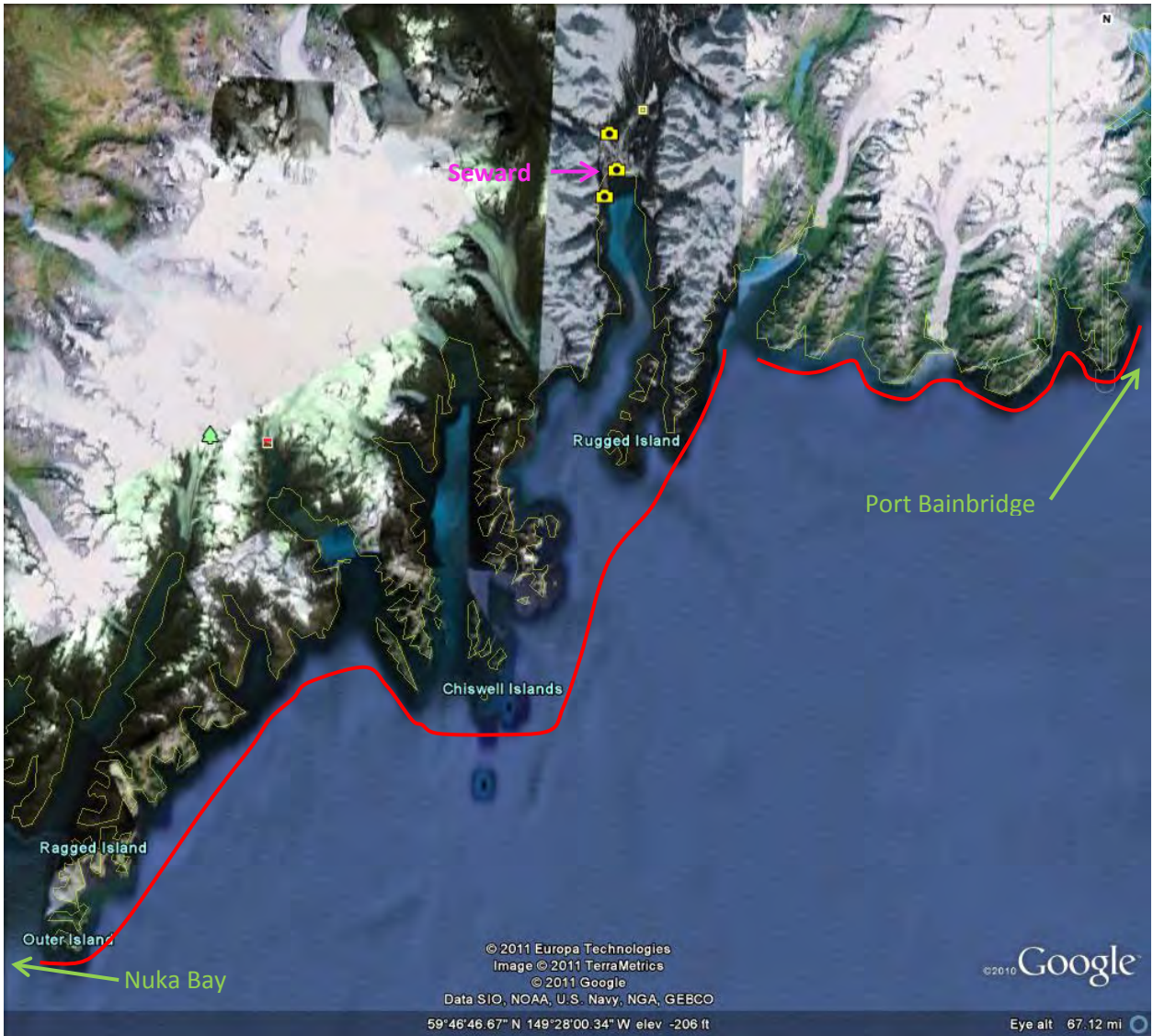
MD Caused Chemical Sheen in Elizabeth Island Lake

**2012 Southwest PWS/Kenai Peninsula Proposed Cleanup Area Charts**





Northern Gulf of Alaska 2012 projected general cleanup area shoreward of line — red line  
 Port Bainbridge to Nuka Bay



**Collector beaches proposed to be cleaned north and west of this line in 2012**

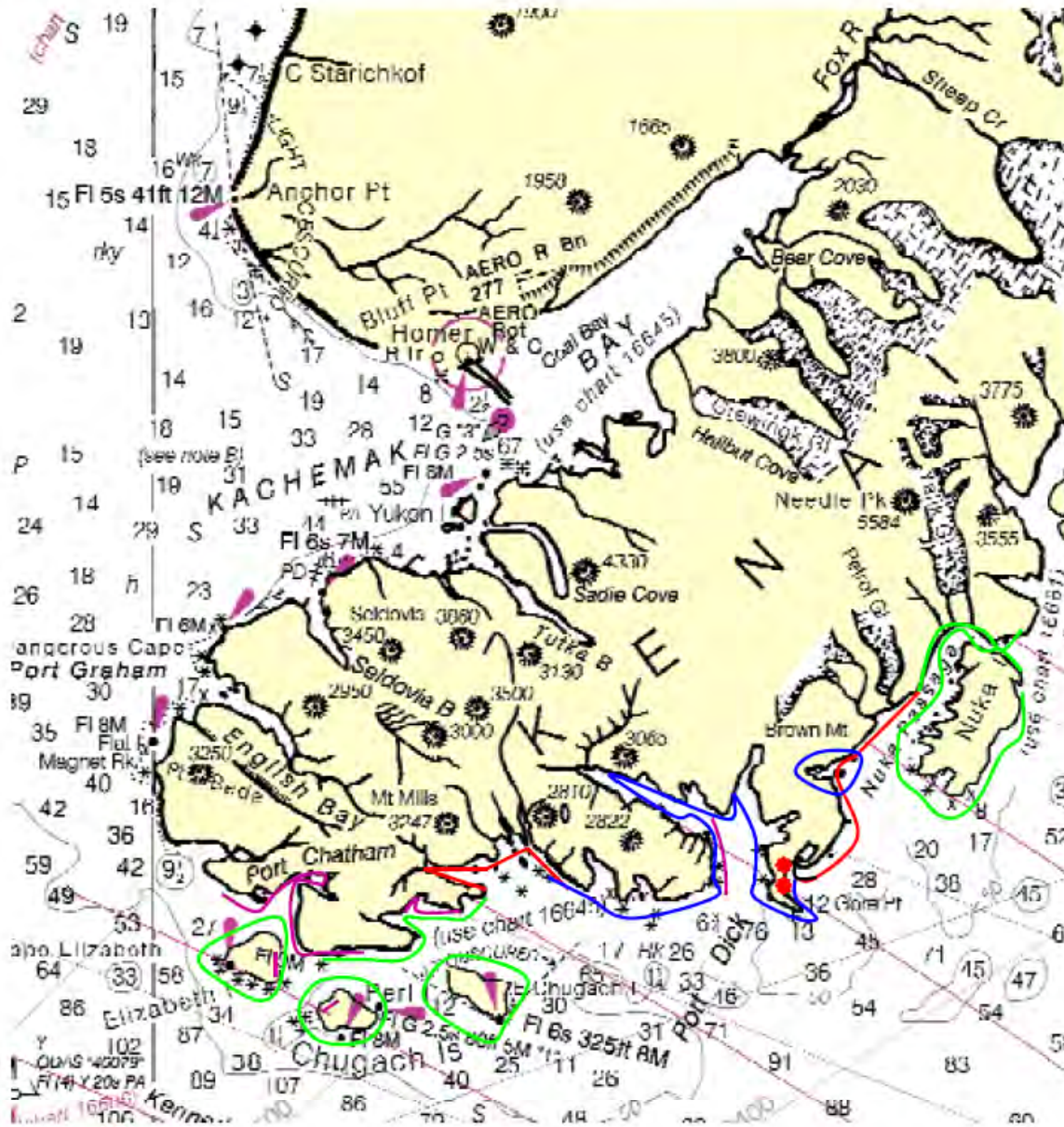
**Two of the areas cleaned 2009-2010** ○

**Chart 3 - Harris Bay to Nuka Island, S. Kenai Peninsula**



Gore Point marine-debris cleanups: 2007 —  
 2008 —  
 2009 —  
 2010 —

Gore Point marine-debris monitoring sites ●



## ***F. Underwater Derelict Fishing Gear Survey***

In addition to the 5 onshore 2012 cleanup projects detailed above, GoAK proposes an underwater derelict fishing gear survey near Main Bay and Lake Bay in PWS. The survey would be accomplished with an underwater Remote Operated Video camera, controlled by an operator onboard a vessel. GoAK proposes to spend 8 to 10 days conducting these surveys in late fall or early spring off 2012. GoAK will donate 2 vessels for the project and 3 volunteers.

### **1. Proposed Underwater ROV Derelict Fishing Gear Survey**

This is a relatively simple project. Using a support vessel and a submersible remote-controlled video camera, GoAK will survey the near-shore, sub-tidal environment in two Prince William Sound bays down to a depth of 100 feet for the presence of derelict nets and other fishing gear. In our pre-proposal, we stated we would survey down to 120 feet. However, after discussing this with the camera manufacturer, commercial fishermen and the camera operator, we believe a 100-foot maximum depth for the initial survey will be more productive. Attempting to operate a remote-controlled camera at deeper depths in high currents and low visibility will likely be time consuming and unproductive. At least 3 crewmen will be present at all times to conduct the survey, a vessel captain, a deck crewman and a professional to operate the underwater video gear. All crew and vessel time will be donated by GoAK. Other than the ROV camera, all supplies and equipment necessary to conduct the surveys will be donated by GoAK. Two underwater surveys will be conducted, one in Main Bay and another in Lake Bay. Each survey is expected to take 4 to 5 days counting travel to the project sites. All survey work must be done during good weather and when water visibility is good. Because visibility is limited by the high density of plankton and other organisms in the project area during summer, the surveys will most occur in the fall or spring.

This project is included in the 2012 budget. GoAK requests \$15,000 from EVOSTC to fund this project. The underwater remote-controlled video camera and gear would cost \$15,000. GoAK would donate 2 vessels and 3 crewmen for at least 8 days, an in-kind donation of \$20,000.

### **2. Threats and Opportunities**

It is clear from information GoAK has received from commercial and charter fishermen that there are many derelict submerged nets and other lost fishing gear such as long lines and pots along the shores and bottom of Prince William Sound. Furthermore, many beaches in PWS have many



heavy cargo and trawl nets on them, particularly beaches closer to the Gulf of Alaska. Low elevation, low profile beaches tend to have more nets because, presumably, storms and surf can push them up the gentler beach slopes. However, steep, craggy shorelines have few nets. It is likely that these beaches have numerous nets snagged underwater on rocky outcrops. These derelict nets could be actively fishing. An ongoing underwater net recovery program in Puget Sound has demonstrated that this scenario is likely and common. If this ghost fishing gear can be identified and located so that it can be subsequently removed, then the ultimate goal of enhancing habitat and protecting species can be achieved more quickly and with less cost. However, environmental conditions such as storms, high surf, tidal currents, and water turbidity may make it difficult to achieve the project's initial primary goal of lost net and marine debris identification.

GoAK will donate the vessels and manpower to do this project; therefore, there is a great deal of flexibility in the project schedule. GoAK can simply wait until conditions are optimal for the underwater surveys.

Commercial fishing pressure in the proposed project survey area is very intense for 4 months each summer. Therefore, it is likely that there is a significant deposition of derelict nets in the area. While new derelict nets may continue to present a threat to habitat and wildlife, a strong commercial-fishing presence may present an opportunity for GoAK to enlist the interest and support of the fishing community in this project. In fact, we hope ultimately that working with the fishing community we can develop strategies to avoid the loss of fishing gear in the project area.

However, from GoAK's experience, local fishermen contribute very little to the amount of derelict fishing gear we find on beaches. Most of the derelict gear is from foreign countries or offshore fleets. Therefore, it is likely that rocky shorelines around the perimeter of PWS and the outer coast of the oil-spill footprint area have large deposits of nets stranded in rocky underwater shoreline outcrops.

### ***3. Long-Term Conservation Outcomes of the Underwater Survey***

Long-term conservation outcomes deriving from this project would be the identification, quantification and ultimately removal of submerged derelict fishing nets, pots, and other marine debris that create lethal conditions for, or otherwise damage the habitat of marine life such as marine mammals,

seabirds, fish, shellfish and other aquatic species. If the proposed underwater marine-debris survey techniques and methodology proposed in this application prove to be efficient and cost effective, the identification, and subsequent removal, of harmful submerged marine debris should be substantially enhanced. While the immediate goal of this pilot project is to test the efficacy of the proposed survey method, the ultimate long-term conservation goal is to remove identified harmful submerged nets and other marine debris, thereby enhancing critical habitat. An additional secondary goal is the identification of species that have become ensnared and killed by nets and other marine debris within the project area.

#### ***4. Outcomes and Indicators of the Underwater Survey Project***

Because this is a pilot project designed primarily to test the feasibility and efficacy of using remote-controlled under-water video cameras to survey for derelict nets and other marine debris as opposed to using skilled divers to do the same job, monitoring of the project's progress will be limited to comparing the success and cost of this methodology for identifying lost gear to that of programs that use divers. However, there is also the question of safety that is not so easily quantified. In the remote and dangerous environment along Prince William Sound shores, there will always be a question of whether it is ever appropriate to risk the wellbeing of divers to find and recover lost fishing gear. Remote-controlled video cameras could eliminate that risk if they work as expected.

If the pilot project demonstrates the feasibility of using this technology to identify submerged derelict fishing gear, then GoAK will expand the survey project and begin efforts to remove the lost gear.

#### ***5. Underwater Fishing Gear Survey Project Team***

**Chris Pallister**, President of GoAK, has 28 years of experience operating boats in Prince William Sound. An environmental attorney, Chris has organized and directed large marine debris remediation projects in Prince William Sound and along the Gulf of Alaska for the past 8 years. He is also responsible for conducting annual marine-debris surveys and monitoring. Each year he also joins a NOAA research team to survey Prince William Sound beaches for stranded oil from the Exxon Valdez oil spill. Chris will be the survey project manager, and will assist with vessel and camera operation during the survey. Chris will submit all final data and reports to EVOSTC.

**Captain Ted Raynor** has 27 years of experience captaining a charter vessel and 9 years involvement in the Prince William Sound marine debris projects, including as Field Manager for the summer-long professional GoAK marine-

debris remediation projects. He has intimate knowledge of the Prince William Sound marine environment and is passionate about ridding the coastal environment of marine debris. Ted will operate the support vessel and provide general experience and expertise to the project.

**Colonel Dr. Bill Rome** has 25 years of experience as a vessel operator in Prince William Sound, and has volunteered for GoAK marine-debris projects in past years. Bill is a professional underwater videographer with years of experience filming the rocky underwater world of Prince William Sound. Bill will operate the remote-controlled video gear during the surveys and will also analyze the video tape after the surveys are complete. His thorough knowledge of the species that inhabit this area will help with identifying any animals found in derelict gear.

**Location of PWS Sites for Underwater MD Investigations:**



Budget Category (e.g. personnel, supplies, contractual, etc.)	EVOSTC Funds	Matching Contributions	Total Expense	Nature (cash or in-kind) and Source of Match
Personnel	0	\$92,250 \$8,610	\$100,860	In-kind/volunteer In-kind/GoAK/UAA
Travel	0	\$1,300	\$1,300	In-kind/volunteer/ GoAK
Equipment 200 Super Sacks ROV underwater camera	0 \$15,000	\$3,000	\$3,000 \$15,000	In-kind/GoAK
Supplies	0	\$20,000 \$4,200 \$5,120	\$29,320	Cash/Corporate Cash/Volunteers In-kind/Volunteer food
Contractual	\$337,700	\$140,000 \$1,000 \$1,000 \$2,400 \$126,500 \$15,000	\$623,600	Cash/NOAA federal In-kind/City of Whittier In-kind City of Seward Kenai Peninsula Borough In-kind/Private vessels In-kind/Charter vessels
Accountant	0	\$2,000	\$2,000	Cash/GoAK
<b>TOTAL</b>	<b>\$352,700</b>	<b>\$422,380</b> (\$140,000 Federal grant) (\$282,380 cash/in-kind)	<b>\$775,080</b> (\$352,700 EVOSTC) (\$140,000 Fed Grant) (\$282,380 cash/in-kind)	

**2012 Proposed Cleanup Budget**

## **2012 Proposed Southwest PWS/Kenai Peninsula 2012 Removal Budget Narrative**

Gulf of Alaska Keeper (GoAK) proposes to expend over a 90-day project a total of \$775,080 to remove marine debris from the coastline of southwest PWS, the Gulf of Alaska coastline on the Kenai Peninsula between Port Bainbridge and Resurrection Bay, and selected collector beaches within the Kenai Fjords National Park between Resurrection Bay and Nuka Bay. In addition, in 2012, GoAK proposes to conduct two underwater derelict fishing gear surveys over 8 to 10 days in PWS. Of the total projected cost, **\$352,700** would be from **EVOSTC** funds and **\$422,380** from **matching** funds. The matching funds would be comprised of a projected \$140,000 NOAA 2012 marine debris grant, \$29,320 in private donations, and \$253,060 from in-kind donations. For the past 5 years, GoAK's cash donations have averaged approximately \$25,000 and in-kind donations \$225,000 for marine debris projects in the oil spill footprint area.

### **A. Personnel**

Each year GoAK organizes and conducts large volunteer cleanups in oil footprint area, primarily in PWS. Up to 100 volunteers with 12 vessels spend four days cleaning beaches. In addition, each summer, GoAK uses 8 volunteers and 3 vessels to re-clean 12 marine debris monitoring sites in PWS. Volunteers and GoAK board members donate over 4500 hours to these projects annually, an in-kind donation worth **\$92,250**. GoAK and researchers from the University of Alaska Anchorage and the College of Williams and Mary will also donate 420 field hours, an in-kind donation worth **\$8,610**, to a marine debris toxicity research project on Elizabeth Island during the summer of 2012.

### **B. Travel**

Volunteers for the different GoAK marine debris projects pay their own transportation costs to and from the project departure point. Volunteers pay tunnel fees, and parking fees to get to Whittier, an in-kind donation of **\$1,300** annually.

### **C. Equipment**

The coastal area between Port Bainbridge in southwest PWS and Resurrection Bay has only two areas where cleanup vessels can anchor safely. MD collected on the outer unprotected coast of Johnstone Bay, Whidbey Bay and Deadhorse Spit must be loaded into Super Sacks so that a helicopter can then sling the debris from the beach onto a safely sheltered landing craft. GoAK will donate

200 Super Sacks to the project, an in-kind donation of **\$3,000**. All other marine debris tools and equipment are provided by GoAK.

GoAK proposes spending **\$15,000 of EVOSTC** funds to purchase an underwater Remotely Operated Video camera to survey selected areas for derelict fishing gear.

#### **D. Supplies**

Generator, skiff, furnace, and outboard fuel; water filtration supplies; waste sanitation supplies; and miscellaneous supplies for the Southwest PWS cleanup will be paid from projected cash donations of **\$24,200**. Volunteers will provide their own food, an in-kind donation of **\$5,120**.

#### **E. Contractual**

##### *1. In-kind donations*

Total contractual costs include an in-kind **\$126,500** donation of private vessel time, including \$20,000 in donated vessel time for an underwater derelict fishing gear survey; an in-kind **\$15,000** donation of charter vessel time; an in-kind **\$1,000** donation from the City of Seward for dumpster storage, vessel slip, launch, and wharfage fees; an in-kind **\$2,400** donation from the Kenai Peninsula Borough for landfill tipping fees, and an in-kind **\$1,000** donation from the City of Whittier for launch fees, slip fees, and dumpster storage.

##### *2. Cash*

For the past four years, GoAK has received annual NOAA marine debris grants of \$140,000 to \$170,000 for cleanup within the oil spill footprint area. GoAK projects that it will receive a NOAA marine debris cash grant of **\$140,000** for the Southwest PWS/Kenai Peninsula cleanup project. The NOAA grant along with the **\$352,700** requested from EVOSTC will be used to pay for: cleanup related insurance (\$8,000); marine debris dumpster, and trucking costs (\$9,600); marine debris related laboratory and field research costs (\$12,000); two individuals for 7 days to clean 12 marine debris monitoring beaches with 8 volunteers, collect the data and to produce the monitoring reports (\$3,500); an 80-foot landing craft lease for 4 days to collect staged marine debris and to transport it to Seward for disposal (\$13,600); a lease of a helicopter for one day to transfer debris from unprotected beaches to the large landing craft (\$22,500); contract for 3 cleanup support vessels and 4 skiffs including a 24-foot aluminum work boat for moving crews to work sites and hauling garbage, a 32-foot landing craft for collecting and transferring garbage to collection sites, a 54-foot crew quarter vessel, and also 4 inflatable skiffs with outboards for beach access, garbage transfer, and crew

transport (all for \$2,450 per day with fuel for 90 days=\$220,500); the cost of contract crew of 8 people to clean beaches during the Southwest PWS/Kenai Peninsula cleanup (\$2,200 per day for 90 days=\$198,000).

#### **F. Accounting/Bookkeeping**

GoAK will pay an accountant \$2,000 to do the bookkeeping and accounting associated with this the 2012 cleanup project.

#### **G. Indirect, Management, Travel and Profit**

There are **no** additional indirect, management, travel, or profit charges for the Southwest PWS/Kenai Peninsula cleanup project.

## **II. 2013 Marine Debris Removal Project**

### ***Barren Islands 2013 Marine Debris Project Narrative***

Gulf of Alaska Keeper proposes removing marine debris from the Barren Islands during the summer of 2013. GoAK requests **\$377,300** in EVOSTC funding for this project.

The Barren Islands are situated about 20 miles southwest of Elizabeth Island, at the southwest end of the Kenai Peninsula, across Kennedy Entrance. Southwest from the Barren Islands, it is about another 20 miles across Stevenson Entrance to Shuyak Island at the north end of the Kodiak Island archipelago. Ushagat Island is the western most and largest of the Barren Islands. Ushagat Island is about 7 miles east to west and 3.5 miles north to south. West and East Amatuli Islands, about 3 and 2-miles long respectively, are several miles to the east of Ushagat Island and are significantly smaller than Ushagat Island. Nord, Sud and Sugarloaf Island, between ½ and 1-mile long each are the three remaining “major” islands in the group, however there are numerous small unnamed islets in the area.

The Barren Islands are part of the Alaska Maritime National Wildlife Refuge. They comprise an ecologically rich, but sensitive environment. MD cleanups in this area will be closely planned and coordinated with Refuge staff.

Ushagat Island has several long sections of shoreline uninterrupted by headlands that combined total approximately 5 miles in length. These beaches for the most part are heavily fouled by marine debris (MD), especially those beaches armored with drift logs. In those shoreline areas with lowlands beyond



the beaches, particularly on the island's north side, MD has been driven far onshore. In some areas, large amounts of debris are found hundreds of yards beyond the tideline. Large quantities of MD have also washed over beach berms and been deposited in two sizable lakes on the island's north side.

In addition to the stretches of low-profile continuous beach on Ushagat Island, there are approximately another 12 miles of rocky shoreline pocketed with numerous MD collector areas. Most of these discontinuous collector beaches are heavily fouled with MD. These shorelines will be quite difficult to clean because most of them will need to be accessed by skiff. Cleanup personnel will generally not be able to walk from one collector pocket to the next. The balance of the remaining 8 to 10 miles of coastline on Ushagat Island is steep with few debris-catchment areas and will need little cleanup effort.

Most of the low beaches on Ushagat Island have MD deposits nearly comparable to the massive MD deposits Gulf of Alaska Keeper removed from Gore Point, where 20 tons of plastic MD were removed from just one half-mile shoreline. That particular Gore Point beach took a 7-man professional cleanup crew, with the assistance of 5 volunteers, one month to clean. The beaches on Ushagat Island, and the other Barren Islands, are not quite as badly fouled as those at Gore Point, but they are more extensive and even more difficult to access in many circumstances. As such, cleaning shorelines in the Barren Islands will be very difficult and time consuming. We estimate that it will take a ten-person crew 80 days to thoroughly clean the beaches in this area.

The Barren Islands sit at a convergence of strong storms, currents, and tides. The Alaska Coastal Current approaches the islands from the east. Strong tidal currents from Cook Inlet and Shelikof Straits surge around the islands. Storms hit the islands in the summer cleanup season primarily from the southwest to the southeast, but can come from any quarter. There are only two good anchorages for cleanup support vessels, one each on the north sides of East and West Amatuli Islands. Generally, when not working on either East or West Amatuli Island, crew vessels will need to move to the lee side of an island for protection. The lack of secure anchorages will require a considerable amount of effort and time to move crews to beach work sites. Careful daily on-site attention to, and consideration of, actual and forecasted weather conditions will determine crew placement and work schedules.

Marine debris will be collected by hand and smaller items placed in large garbage bags. The garbage bags and larger debris items will then be moved to accessible staging sites and placed in large Super Sacks. At the end of the season, the Super Sacks will be lifted by a helicopter onto a large barge

anchored offshore. The debris will then be transported to Homer for landfill disposal. All usable items such commercial fishing floats, buoys, buckets, and drums will be recycled by giving them to commercial fishermen or to any other entity that may have use for them.

Gulf of Alaska Keeper's plan for cleaning this sensitive area includes housing the cleanup crews on a 54-foot support vessel in order to limit human impact on the area. There will be no onshore camps in the Barren Islands. Workers will be shuttled to and from shore on a daily basis. All cleanup generated waste and trash will be stored onboard and transferred to Homer for proper disposal. A 32-foot landing craft will be used for transferring MD from accessible beaches and providing logistical support for the project. A 24-foot aluminum work vessel will be used to transfer crew over longer distances to cleanup beaches and to move gear and debris. Four inflatable skiffs will also be used access beaches, ferry crew, and to collect and consolidate debris.

The shoreline in the Barren Islands is rocky, largely unprotected, and subject to strong currents. There are only a few areas where a large landing craft could approach the shore safely. For that reason, GoAK plans to use the same cleanup methodology successfully employed on the Gore Point cleanup. Crews, using only hand tools, will collect debris in garbage bags. A small landing craft can access many of the beaches and will be used to consolidate debris for later shipping. These garbage bags of MD will be moved to accessible locations for helicopter slinging. The garbage bags will be placed in Super Sacks which will be cached until the end of the cleanup season. A helicopter will then sling the Super Sacks of MD onto a large landing craft. The MD will then be shipped to the Kenai Peninsula landfill for disposal. All salvageable items, such as fishing floats, fuel drums, etc., will be given to commercial fishermen or any other entities that might want them.

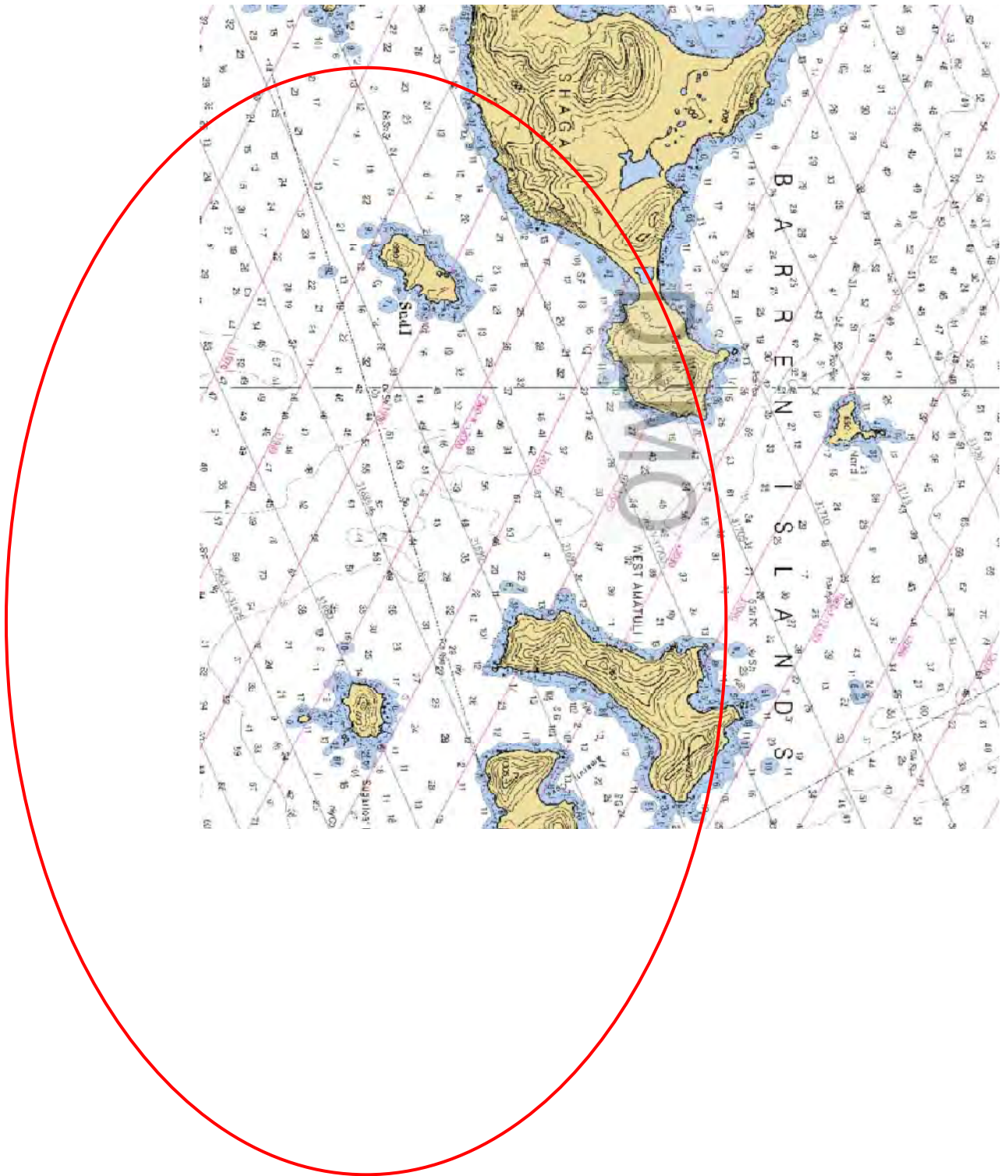
GoAK anticipates that between 80 and 100 tons of primarily plastic marine debris will be removed from between 20 and 25 miles of coastline in the Barren Islands over the duration of this project. The width of the shoreline cleaned will vary from approximately 25 yards on steeper beaches up to several hundred yards inland on the low profile, low elevation beaches. At least 2.6 million square yards of coastal habitat will be cleaned during this project and as much as 4.4 million square yards could be cleaned.

In addition to the Barren Island professional cleanup effort, GoAK will also conduct a 4 day volunteer project with cleanups on portions of Perry Island and Green Island. Perry Island was initially cleaned in 2005, but beaches on the west and north sides were not cleaned. Green Island was originally cleaned in

2008. However, a large amount of new debris has again collected on the northern half of the island. Green Island catches a considerable amount of debris that flushes into PWS through Hinchinbrook Entrance and around the tip of Montague Island to Green Island beaches. 100 volunteers and 12 donated vessels are projected to join this cleanup effort. GoAK will also take 8-10 volunteers and 3 donated vessels out for 7 days to re-clean 13 MD monitoring plots throughout PWS. GoAK will also participate in an ongoing MD toxicity research project on Elizabeth Island at the southwest tip of the Kenai Peninsula. 3 volunteers will spend two weeks traveling to, and collecting samples from, fish, water, and sediments in a coastal salmon rearing lake and outlet stream severely polluted by marine debris.

# Barren Islands 2013 Project Charts

Projected 2013 marine debris cleanup area 



## Ushagat Island, Barren Islands

Heavy continuous MD deposits ————

Moderate to heavy continuous MD deposits ————

Heavy MD deposits in concentrated pockets ————



## West and East Amatuli Islands, Barren Islands

Heavy continuous MD deposit —

Heavy MD deposits in concentrated pockets —



Budget Category (e.g. personnel, supplies, contractual, etc.)	EVOSTC Funds	Matching Contributions	Total Expense	Nature (cash or in-kind) and Source of Match
Personnel	0	\$92,250 \$8,610	\$100,860	In-kind/volunteer In-kind/GoAK/UAA
Travel	0	\$1,300	\$1,300	In-Kind/volunteer/ GoAK
Equipment Super Sacks	0	\$5,250	\$5,250	In-kind/GoAK 350 Super Sacks
Supplies	0	\$20,000 \$4,200 \$5,120	\$29,320	Cash/Corporate Cash/Volunteers In-kind/Volunteer food
Contractual	\$377,300	\$140,000 \$1,000 \$2,500 \$106,500 \$15,000	\$642,300	Cash/NOAA federal In-kind/City of Whittier In-kind/City of Homer In-kind/Private vessels In-kind/Charter vessels
Accountant	0	\$2,000	\$2,000	Cash/GoAK
<b>TOTAL</b>	<b>\$377,300</b>	<b>\$403,730</b> (\$140,000 Federal grant) (\$263,730 cash/in-kind)	<b>\$781,030</b> (\$377,300 EVOSTC) (\$140,000 Fed Grant) (\$263,730 cash/in-kind)	

**Barren Islands 2013 Cleanup Projected Budget**

## **Barren Islands 2013 Removal Budget Narrative**

Gulf of Alaska Keeper (GoAK) proposes to expend over an 80-day project a total of \$760,030 to remove marine debris from the coastline of the Barren Islands. Of the total projected cost, **\$377,300** would be from **EVOSTC** funds and **\$403,730** from **matching** funds. The matching funds would be comprised of a projected \$140,000 NOAA 2013 marine debris grant, \$29,320 in private donations, and \$234,410 from in-kind donations. For the past 5 years, GoAK's cash donations have averaged approximately \$25,000 and in-kind donations \$225,000 for marine debris projects in oil spill footprint area.

### **Personnel**

Each year GoAK organizes and conducts large volunteer cleanups in Exxon oil spill footprint area, primarily in PWS. Up to 100 volunteers with 12 vessels spend four days cleaning beaches. In addition, each summer, GoAK uses 8 volunteers and 3 vessels to re-clean 12 marine debris monitoring sites in PWS. Volunteers and GoAK board members donate over 4500 hours to these projects annually, an in-kind donation worth **\$92,250**. GoAK and researchers from the University of Alaska Anchorage and the College of Williams and Mary will also donate 420 field hours, an in-kind donation worth **\$8,610**, to a marine debris toxicity research project centered on Elizabeth Island during the summer of 2013.

### **Travel**

Volunteers for the different GoAK marine debris projects pay their own transportation costs to and from the project departure point. Volunteers pay tunnel fees, and parking fees to get to Whittier, an in-kind donation of **\$1,300** annually.

### **Equipment**

The Barren Islands cleanup project will require that debris be loaded into Super Sacks so that a helicopter can sling the debris from the beach onto an offshore landing craft. GoAK will donate 350 Super Sacks to the project, an in-kind donation of **\$5,250**. All other marine debris tools and equipment will be provided by GoAK.

### **Supplies**

Generator, skiff, furnace, and outboard fuel; water filtration supplies; waste sanitation supplies; and miscellaneous supplies for the Barren Islands cleanup will be paid from projected cash donations of **\$24,200**. Volunteers will provide their own food, an in-kind donation of **\$5,120**.



## **Contractual**

### *In-kind donations*

Total contractual costs include an in-kind **\$106,500** donation of private vessel time; an in-kind **\$15,000** donation of charter vessel time; an in-kind **\$2,500** donation from the City of Homer for dumpster storage, vessel slip, launch, and wharfage fees; and an in-kind **\$1,000** donation from the City of Whittier for launch fees, slip fees, and dumpster storage.

### *Cash*

For the past four years, GoAK has received NOAA marine debris grants of \$140,000 to \$170,000 for cleanup work within the oil spill footprint area. GoAK projects that it will receive a NOAA marine debris cash grant of **\$140,000** for the Barren Islands cleanup project. The NOAA grant along with the **\$377,300** requested from EVOSTC will be used to pay for cleanup related insurance (\$8,000); marine debris dumpster and landfill disposal costs (\$12,800); marine debris related laboratory analysis and field research costs (\$12,000); pay for two individuals for 7 days to clean 12 marine debris monitoring beaches with 8 volunteers, collect the data and to produce the monitoring reports and analysis (\$3,500); 100-foot landing craft lease for 6 days to collect cached marine debris and to transport it to Homer for disposal (\$24,000); lease helicopter for two days to transfer debris from Barren Islands beaches to large landing craft (\$45,000); contract for 3 cleanup support vessels and 4 skiffs including a 24-foot aluminum work boat for moving crews to work sites and hauling garbage, a 32-foot landing craft for collecting and transferring garbage to collection sites, a 54-foot crew quarter vessel, and also 4 inflatable skiffs with outboards for beach access, garbage transfer, and crew transport (all for \$2,450 per day with fuel for 80 days=\$196,000); cost of contract crew of 10 people to clean beaches in the Barren Islands (\$2,700 per day for 80 days=\$216,000).

## **Accounting/Bookkeeping**

GoAK will pay an accountant \$2,000 to do the bookkeeping and accounting associated with this project.

## **Indirect, Management, Travel and Profit**

There are **no** additional indirect, management, travel, or profit charges for the Barren Islands project.

## **III. 2014 Montague Island Marine Debris Removal Project**

## ***SE Montague Island, PWS 2014 MD Project Narrative***

During the summer of 2014, from early May through August, Gulf of Alaska Keeper proposes cleaning marine debris (MD) from 15 to 20 miles of extremely fouled coastline on the southeast side of Montague Island, shoreline directly exposed to the Gulf of Alaska (GOA). GoAK request EVOSTC funding of **\$285,000** for this MD removal project. GoAK conducted MD surveys on the GOA coastline of Montague Island in 2006 and 2007. The surveys established that these beaches are among the dirtiest beaches in the world in terms of the amount of MD present.

Montague Island is the largest Prince William Sound island at 50 miles long by 10 miles wide. It directly abuts the stormy northern Gulf of Alaska at a 45 degree angle to true north and south. Its southeast facing GOA side has generally gentle- gradient, low-profile, wide beaches along the southern two thirds, while the northern one third has steeper rockier beaches. Huge log storm berms cover this project area's coastline. Montague Island functions as a great barrier island protecting inner PWS not only from severe Gulf of Alaska storms and surf, but also from hundreds of tons of marine debris (MD) driven in from the North Pacific Gyre and Alaska Coastal Current.

The 20 miles of nearly continuous beach from Jeannie Cove in the south, through Patton Bay in the north, are the dirtiest beaches on Montague. We estimate they hold 5 to 6 tons of plastic MD per mile. When the tons of metal debris left on these beaches by wrecked boats, wrecked airplanes, and piles of metal containers of one kind or another are considered, the total amount of debris is much higher. The plastic debris is intertwined with immense, and nearly continuous, log berms. Staggering quantities of old derelict cargo nets, fishing nets, lines, fishing floats and everyday plastic trash litter the log berms. Because the proposed project area of Montague Island has, for the most part, gentle low-elevation, low-profile beaches, strong storms and surf have driven MD hundreds of yards beyond the wide driftwood log berms and into the surrounding uplands. It is a staggering mess.

Approximately 80% of the plastic Montague Island MD is related to commercial fishing, primarily from decade's old offshore and foreign fisheries. Thousands of derelict fishing nets, lines, fish traps, and floats litter the coast. Snarled bundles of packing band material, among the deadliest of all MD to marine mammals, are common. Millions of pieces of Styrofoam trash the shoreline, from huge blocks to small beads. Every conceivable type of industrial, commercial and residential plastic is represented. Shipping containers are regularly washed off transport ship in the Gulf of Alaska and other areas in the Pacific. The contents of the

shipping containers wash onto Montague beaches. Most the non-fishing related plastic MD floats in on currents from western Pacific countries, including Russia, Japan, Korea, China and the Philippines. Untold tons of metal items also litter this coastline including a railroad tank car that washed off a rail barge, wrecked vessels, derelict large steel weather and navigation buoys, appliances such as refrigerators, and numerous other smaller metal items. Every year, hundreds, if not thousands, of containers from large drums of fuel, chemicals and oil, to small industrial pesticide bottles and household cleaning products burst in the Montague surf and spread their contents along the sensitive inter-tidal ecosystem.

While this proposed project area is not technically within the oil spill footprint area, it is directly adjacent to it. The debris-laden beaches on Montague's GOA coast are subject to ferocious storms and surf. Debris from these beaches is transported by prevailing storms and currents through Hinchinbrook Entrance into PWS. From there, currents and storms deposit the debris throughout the spill footprint area, directly harming sensitive habitat and wildlife still recovering from the oil spill. A 2010 GoAK cleanup project on northern Montague Island demonstrated how much MD can move through Hinchinbrook Entrance in just one winter season.

During the summers of 2008-2010, GoAK cleaned beaches in Rocky Bay and Zaikof Bay at the northern end of Montague Island just inside Hinchinbrook Entrance. Rocky Bay and Zaikof Bay are important wildlife habitat areas. Harbor seals, sea lion, sea otters and humpback whales are common there. Depleted herring spawn on shorelines in the bays. GoAK cleaned the west side of Rocky Bay in 2009. In 2010, while cleaning adjacent beaches in Rocky Bay and Zaikof Bay, GoAK discovered that winter storms had driven 5 tons of new MD onto the Rocky Bay shoreline cleaned just the previous summer. We again cleaned that shoreline. Nearly all the newly accumulated MD washed through Hinchinbrook Entrance. Presumably, much of it was picked up and transported from the filthy beaches on the GOA side of Montague Island. Clearly, the immense amount of MD present on the GOA side of Montague Island is a significant threat to wildlife and habitat within PWS. Cleaning the GOA side of Montague Island will significantly reduce MD impacts within PWS.

The Gulf side of Montague Island is a very remote and difficult area to access. It is subjected to severe weather and sea conditions. There is no protected anchorage along this entire outer coastline. Access to these beaches is generally limited to wheel or floatplane, or by helicopter. The nearest communities to Montague Island are Valdez, Cordova and Whittier, all over 60

miles away by air or water. The area of the proposed Montague project is 80 to 100 miles from those communities.

GoAK proposes to clean beaches in Jeannie Cove and Patton Bay with a 9-man crew over 85 days during the summer of 2014. The crew would live onshore in a transportable field camp. The crew and field camp would be transported to the area by wheel planes landing on the beach. A helicopter would lift larger items from a support vessel in Hanning Bay over Montague to the project area. Because of the distance involved in this proposed project, 15 to 20 miles, and the lack of predictable and immediate vessel access, the camp and crew would be moved periodically by helicopter. The camp will be moved twice at the end of two consecutive 30-day shifts while the crew is taking 1-week breaks. The final work shift would be 25 days.

The crew would remove MD by hand, place it in garbage bags and then place the garbage bags and larger debris into staged Super Sacks. If a permit can be obtained for its use on the project beaches, a 6-wheel Argo with trailer, provided by GoAK, will be utilized to transport crew along the beaches, and to move and consolidate MD. Near the end of the project the Super Sacks would be lifted by helicopter onto a landing craft stationed offshore. The landing craft would then transport the debris to Whittier for eventual disposal at the Anchorage landfill. All reusable fishing floats (of which we expect to collect thousands), plastic buckets, drums and other usable items will be recycled by giving them to commercial fishermen or to any entity that can use them.

Upland owners on Montague Island include the United States Forest Service, the State of Alaska, and the Chugach Alaska Corporation (an Alaskan Native corporation). Offshore, the Alaska Maritime National Wildlife Refuge (AMNWR) directly parallels the shoreline of Montague Island. If this project is selected for EVOSTC funding, GoAK will initiate the permitting process with the State of Alaska Department of Natural Resources and the United States Forest Service. An AMNWR permit is unnecessary because we will not enter the refuge. However, we will consult with refuge managers regardless to assure there are no problems. Chugach Alaska Corporation has already issued a draft project land-use permit for a cleanup in this area. The permit just needs to be updated and approved. Over the past 5 years, GoAK worked with these parties to conduct major beach-cleanup projects in PWS and along the northern Gulf of Alaska. They are familiar with and approve our cleanup methodology.

In addition to the above parties, GoAK has in past years worked closely with the National Oceanic and Atmospheric Administration (NOAA), the Marine Conservation Alliance Foundation; Chenega Corporation; Port Graham

Corporation; the cities of Homer, Seward and Whittier; Princess Tours; the Alyeska Pipeline Company; REI; BP; many local charter businesses; and hundreds of volunteers to clean over 900 miles of Alaska coast.

In 2006, GoAK cleaned 350 miles of beaches in the Knight Island archipelago in central PWS. In 2007, GoAK cleaned 110 miles of beaches on 13 north central PWS islands, and 70 miles of extremely fouled beaches at Gore Point on the Kenai Peninsula Gulf of Alaska coast. In 2008, GoAK cleaned 62 miles of beaches on Green Island and northern Montague Island and 70 miles of beaches in the Gore Point region. In 2009, 61 miles of beaches were cleaned on northern Montague Island and western PWS between Lighthouse Point and Eshamy Bay. An additional 85 miles of coast were cleaned west of Gore Point on the Kenai Peninsula. In 2010, 28 miles of beaches were cleaned in Rocky Bay, Zaikof Bay, and on Evans and Elrington Island in PWS. 27 more miles were cleaned at the southwest end of the Kenai Peninsula.

In addition to the GoAK professional cleanup efforts, GoAK also annually organizes and manages a 100-person, 3-day volunteer beach cleanup each spring in PWS. Volunteers are transported to remote beaches in 12 to 15 donated charter and private vessels and spend 3 to 4 days collecting MD. During the summer of 2014, the volunteer cleanup will clean beaches on the PWS side of Montague Island from Montague Point south toward Hanning Bay. In addition, GoAK and volunteers annually re-clean 13 established MD monitoring sites to collect data on MD accumulation rates. Over 4500 hours of volunteer labor will be donated to GoAK 2014 cleanup projects, along with donated vessel time worth over \$90,000.

Budget Category (e.g. personnel, supplies, contractual, etc.)	EVOS Funds	Matching Contributions	Total Expense	Nature (cash or in-kind) and Source of Match
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Personnel	0	\$92,250	\$92,250	In-kind/volunteer In-kind/GoAK/UAA
Travel	0	\$1,300	\$1,300	In-kind/volunteer/ GoAK
Equipment Super Sacks Camp Facilities	0	\$5,250 \$20,500	\$25,750	In-kind/GoAK Cash/Corporate & Priv.
Supplies	0	\$4,200 \$5,120	\$9,320	Cash/Volunteers In-kind/Volunteer food
Contractual	\$285,000	\$140,000 \$9,500 \$1,000 \$85,500 \$15,000	\$536,000	Cash/NOAA federal Cash/Corporate In-kind/City of Whittier In-kind/Private vessels In-kind/Charter vessels
Accountant	0	\$2,000	\$2,000	Cash/GoAK
<b>TOTAL</b>	<b>\$285,000</b>	<b>\$381,620</b> (\$140,000 Federal grant) (\$241,620 cash/in-kind)	<b>\$666,620</b> (\$285,000 EVOSTC) (\$140,000 Fed Grant) (\$241,620 cash/in-kind)	

**Montague Island 2014 Cleanup Projected Budget  
Southeast Montague Island 2014 Removal Budget Narrative**

Gulf of Alaska Keeper (GoAK) proposes to expend over a 85-day project a total of \$666,620 to remove marine debris from the coastline of southeast Montague Island from Jeannie Cove through Patton Bay. Of the total projected cost, **\$285,000** would be from **EVOSTC** funds and **\$381,620** from **matching** funds. The matching funds would be comprised of a projected \$140,000 NOAA 2014 marine debris grant, \$34,200 in private donations, and \$207,420 from in-kind donations. For the past 5 years, GoAK's cash donations have averaged approximately \$25,000 and in-kind donations \$225,000 for marine debris projects in the oil spill footprint area.

#### **A. Personnel**

Each year GoAK organizes and conducts large volunteer cleanups in oil footprint area, primarily in PWS. Up to 100 volunteers with 12 vessels spend four days cleaning beaches. In addition, each summer, GoAK uses 8 volunteers and 3 vessels to re-clean 12 marine debris monitoring sites in PWS. Volunteers and GoAK board members donate over 4500 hours to these projects annually, an in-kind donation worth **\$92,250**.

#### **B. Travel**

Volunteers for the different GoAK marine debris projects pay their own transportation costs to and from the project departure point. Volunteers pay tunnel fees, and parking fees to get to Whittier, an in-kind donation of **\$1,300** annually.

#### **C. Equipment**

The Gulf of Alaska shoreline of Montague Island offers no protected shelter for cleanup support vessels. MD collected on the unprotected coast from Jeannie Cove through Patton Bay must be loaded into Super Sacks so that a helicopter can then sling the debris from the beach onto an offshore landing craft. GoAK will donate 350 Super Sacks to the project, an in-kind donation of **\$3,000**. Because there is no place to safely anchor a vessel to house the cleanup crew, a portable field camp must be utilized during this project. The camp will include 5 portable wall tents with removable solid floors (3 sleeping, 1 cooking and dining, and 1 showers and toilet tent). A stove, a water heater, space heaters, propane tanks, a water purifier system, shower and toilet facilities, 2 small generators, tables, chairs, bunks, lights, and tarps will also be necessary for the camp. The camp equipment will be purchased with private and corporate cash donations of **\$20,500**.

#### **D. Supplies**

Generator, heater, and stove fuel; water purification supplies; waste sanitation supplies; and miscellaneous supplies will be purchased from projected private cash donations of **\$4,200**. Volunteers will provide their own food, an in-kind donation of **\$5,120**.

#### **E. Contractual**

##### *1. In-kind donations*

Total contractual costs include an in-kind **\$85,500** donation of private vessel time; an in-kind **\$15,000** donation of charter vessel time; an in-kind **\$1,000** donation from the City of Whittier for dumpster storage, vessel slip, launch, and wharfage fees.

##### *2. Cash*

For the past four years, GoAK has received annual NOAA marine debris grants of \$140,000 to \$170,000 for cleanup within the oil spill footprint area. GoAK projects that it will receive a NOAA marine debris cash grant of **\$140,000** for the Montague Island cleanup project. The NOAA grant along with the **\$285,000** requested from EVOSTC and **\$9,500** in corporate cash donations will be used to pay for: cleanup related insurance (\$9,000); lease of aircraft to move crews, supplies, and equipment to and from the project area (\$25,000); marine debris dumpster, trucking, and disposal costs (\$25,000); an 80-foot landing craft lease for 8 days to collect staged marine debris and to transport it to Whittier for disposal (\$24,000); a lease of a helicopter for 30 hours to transfer debris from unprotected beaches to the large landing craft, to move camp facilities and to transfer larger project equipment from a support vessel in Hanning Bay (\$62,500); a landing craft cleanup support vessel with crew and fuel for 85 days (\$76,500); and the cost of a contract crew of 9 people to clean beaches during the Montague Island cleanup (\$2,500 per day for 85 days=\$212,500).

#### **G. Accounting/Bookkeeping**

GoAK will pay an accountant \$2,000 to do the bookkeeping and accounting associated with this project.

#### **H. Indirect, Management, Travel and Profit**

There are **no** additional indirect, management, travel, or profit charges for the Montague Island cleanup project.

### **Montague Island 2014 Project Charts**

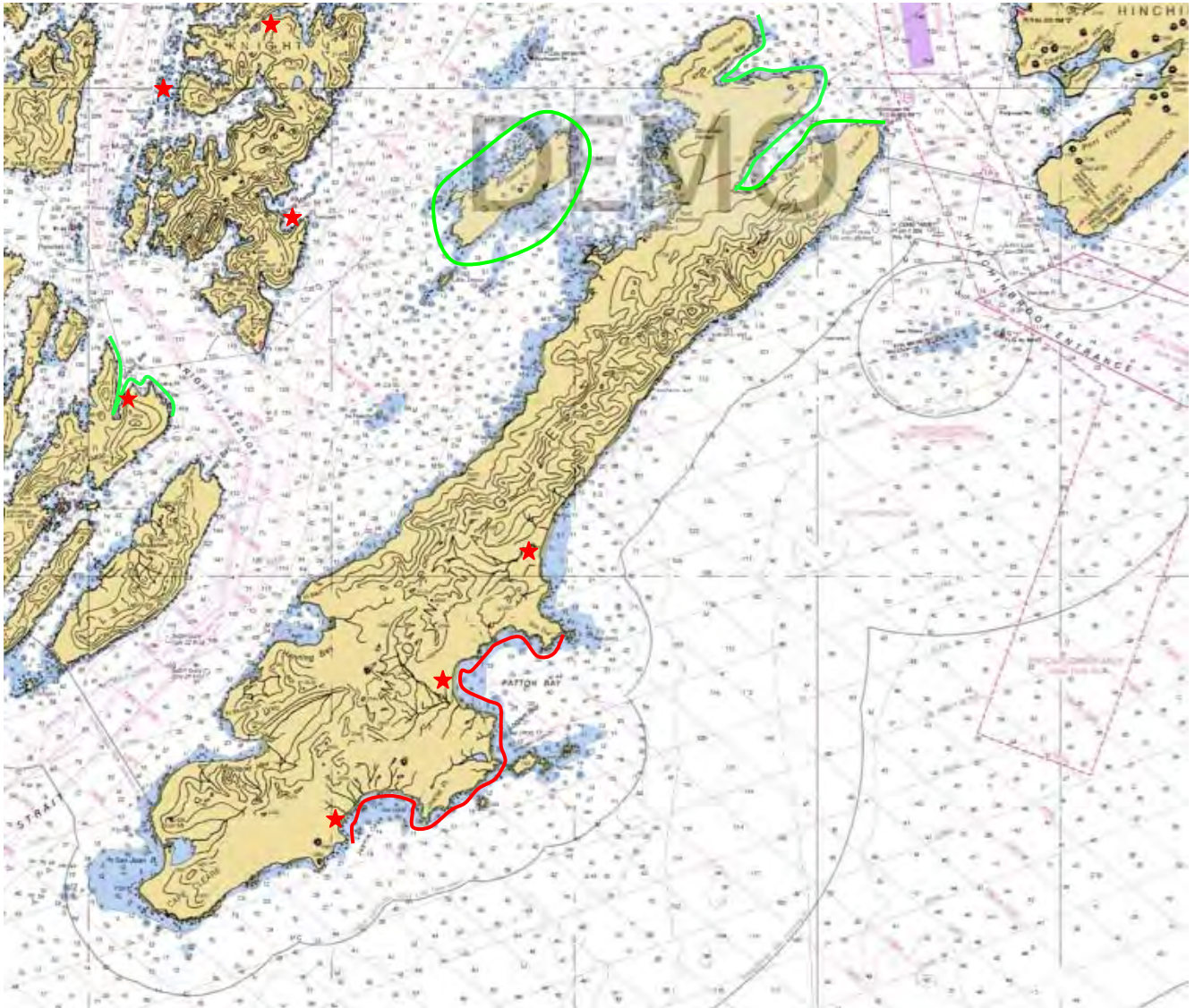


**Montague Island, PWS**

Proposed 2014 Cleanup Shoreward of this line —

Completed 2008-2010 Cleanups

Marine Debris Monitoring Sites ★



**Southern Montague Island 2014 marine debris cleanup shoreward of line —**

**Montague Island**



## **Project Safety Plan and Supplemental Material**

## **CLEANUP SITE SAFETY and WILDLIFE PROTECTION PLAN**

### **GoAK PWS Marine Debris Cleanup Projects**

**GoAK** values your safety over anything else during our PWS clean-up effort; no task is so important that any volunteer should risk injury or health to get the job done. Certain attention to details is mandatory on the part of all of us. If you haven't already done so, please read the pre-event email (at beginning of this packet) sent earlier to all volunteers which outlines suggestions and details recommended for injury prevention, safe travel, and general well-being this weekend.

#### **VESSEL SAFETY – key reminders:**

Everyone will travel by vessel to and from the (project) cleanup site.

Every vessel should meet the basic Coast Guard requirements: PFD's for everyone, fire extinguishers and signaling devices (handheld and/or aerial flares, smoke flares, etc.). In addition, all vessels are required to have inflatable skiffs for safety and to transport workers to cleanup beaches.

Additionally, all passengers should have their own PFD which is required for movement between beaches in the skiff or inflatable, or aboard kayaks. All passengers in inflatable skiffs will wear PFD's. The inflatable operator will must have a safety lanyard attached to the operator that will kill the outboard motor in case of emergency.

Every vessel needs to be equipped with a significant first aid kit.

Every skipper and group beach leader must know and demonstrate proficiency with emergency contact protocols in PWS. Each crew leader must carry a handheld VHF radio and GPS. GoAK can provide them.

A medical doctor, registered nurse, or emergency medical technician will accompany the volunteer cleanup. For medical assistance, contact the C~KEPR on VHF radio, or Chris Pallister at 907-632-1952. Cell phones may not work in PWS, so be prepared to seek assistance via VHF radio, channel 16 or 22

#### **Emergency contacts while in PWS**

- First, Chris Pallister on C~KEPR, John Whitney on DocWalloper, or Ted Raynor on Cape Chacon
- Coast Guard Sector Anchorage, sound-wide VHF radio: channels 16 or 22, 907-271-6700
- Whittier Harbormaster: VHF Channels 68; 907-472-2330

**Working VHF Channel: #72** (confirm on site)

**Vessels and skippers** involved in cleanup work:

- C~KEPR – Chris Pallister
- Cape Chacon – Ted
- Raynor
- DocWalloper – John Whitney
- Chinook – Dave
- Goldstein
- Whitor – Ross Blaker
- Opus-Erik Pallister
- Explorer – Mike Bender
- Nainu – Rob Reiman
- Wave Walker – John Coombes
- CKER – Ryan Pallister
- Sound Access – Gerry Sanger
- (vessels confirmed at departure)

The Coast Guard Auxiliary will maintain patrol/safety vessels offshore during the entire volunteer cleanup weekend: The names of the vessels and skippers will be confirmed at the cleanup briefing the morning of departure for the cleanup site.

Vessel skippers/passengers are responsible to make sure all their passengers riding out also return. Count them! Passengers will be assigned vessels and need to stay with that same vessel for the return trip.

Individuals need to form/use a buddy system throughout the weekend. Crew size will not be less than 4 people per beach cleanup site. Each crew will have a designated leader.

Outbound, each vessel needs one person to review safety standards and general work plan.

**WORK SITE SAFETY:**

Much of the targeted cleanup shoreline is rugged with slippery grass, slick jumbled logs, and large rocks that make for very difficult footing. You must bring proper footwear (close-toed boots) as outlined in safety memo emailed to all.

Wear work gloves are necessary to handle the marine debris, use cutting implements, and to catch a possible slip or fall on the sharp shoreline rocks present at many of the beaches.

Bears are a possibility. Do not have food in your tents, do not cook in your tents, cache food at least 100 yards from tents and 12 feet above ground, do not leave any garbage or food behind, don't get near sows with cubs, and work in groups. Use bear spray if necessary.

Kayakers and the USFS will handle their own first-aid emergencies. Large Coast Guard first-aid kit will be with pedestrian group, many of whom will have smaller individual first-aid kits.

Wet, cool conditions in PWS can be dangerous. Hypothermia is a real threat. All workers must be properly clothed and have rain gear and rubber boots. Review the volunteer information document for suggestions regarding proper clothing.

## **HABITAT and WILDLIFE PROTECTION:**

While personal safety is paramount, it is important to protect the habitat and wildlife we encounter while cleaning beaches. Therefore:

- Limit cleanup activities in spawning streams. Don't unnecessarily walk in streams
- Maintain a safe distance from all wildlife.
- Do not disturb wildlife, particularly nesting birds
- Do not destroy beaches in the zeal to remove marine debris. Fill all holes caused by removing debris. Replace logs and rocks temporarily displaced to remove debris.
- Do not approach marine mammals on the beach or while in your vessels.
- All campfires must be below the high tide line on gravel or sand.
- Camp on sandy or gravel areas to minimize the impact on local vegetation.

## **Volunteer Safety and Informational Letter**

*Volunteers,*

*Thank you all for taking time out of your hectic schedules to help with the **(year)** PWS volunteer cleanup. GoAK truly appreciates that so many of you are committed to protecting PWS.*

*We apologize for the length of this message, but it contains important information. Please read it carefully.*

*We completed a pre-cleanup survey of the **(year)** cleanup area in **(year)**. I have attached a chart of the cleanup area which covers a large area of **(cardinal area)** PWS. Shorelines in PWS may not be conducive to beach walkers; we might need to shuttle people around by inflatable. That is time consuming and volunteers are likely to have periods when they are waiting for transport. Please*

*be patient. Don't risk injury by trying to navigate rocky headlands. We'll do the best we can.*

*As always, weather is a concern. We will not risk injury from bad weather. Rain is OK, but not wind. If the weather cooperates, we should have a very productive weekend. But, please understand that if the weather gets nasty...meaning wind...we will call this effort off. We should be able to make a decision regarding weather Thursday morning the day before the scheduled Friday departure. We will confirm departure then.*

*The following includes some suggestions regarding safety and gear, two closely related items, and other general information.*

*We do not want anybody to get hurt. This is remote unforgiving terrain. Medical care is hours away. If you read the cleanup liability waiver....**which you all must sign and return to GoAK at 5933 E. 12<sup>th</sup> Avenue, Anchorage, AK 99504**...you should be fully aware of some of the potential dangers along PWS shorelines. Please don't show up at Whittier with your deposit and waiver. I need to have confirmed passengers no later than (date)9 and I don't have time to deal with it in Whittier.*

*While aboard the vessels during transport, there will be life jackets (PFDs) for everybody. However, once we are at the cleanup site, most of those life jackets will depart with the transport vessels. Therefore, **please bring your own life jacket or PFD** so that you have one when we are transferring you by skiff or inflatable between beaches during the cleanup. You need and must wear a life jacket while in inflatables or skiffs.*

*Much of the targeted cleanup shoreline is treacherous with slimy algae, slick jumbled logs and jagged rocks that make for very difficult footing. You must bring proper footwear. Our suggestion is that you wear mid-calf to knee-high rubber boots with a good sole. After years of experience, we have concluded that Goodrich Xtra-Tuff rubber boots are excellent. They have a good combination of sole and durability. If you'd like, to prevent water and debris from getting into your boots, you can duct tape the top of the boots to your pants the same as oil spill-response workers do. The trick is to fold over the last inch, or so, of the duct tape to create a tab that you can then use to remove the tape. If you don't do that, it will be difficult to remove the tape, which may then require a knife to cut it off. Then you may ruin your pants and risk being cut. You should also bring a good pair of hiking boots for camp or backup shoes.*

*Please bring a pair of work gloves. While there is very little broken glass in the cleanup area, there are other sharp objects that may cut you. However, of*

*greater concern is that if you fall, you could severely cut your hands on jagged rocks if you are not wearing gloves. Therefore, please bring some light leather work gloves or good quality garden gloves. A stout serrated work knife works well for cutting lines and nets.*

*There are not any known brown bears in the area we intend to clean, but there are many black bears and also spring bear hunters in the area, particularly in the Bainbridge Passage area.. However, the hunters tend to concentrate at the heads of bays and shouldn't be a concern, but please be aware of this situation and plan accordingly...such as wearing bright clothing. We encourage you to bring bear spray, but please leave your guns home.*

*Fresh water shouldn't be an issue in this area. I wouldn't bring an excessive amount of water. One collapsible 5-gallon container per group that you can refill from snow melt would be adequate.*

*We do not want to take the fun out of this event, but please, if you must bring any alcohol along, use it with extreme moderation. Alcohol makes a potentially dangerous environment even more so. The same goes for any other recreational drug. Don't think GoAK is giving you permission to use either, because we are not, and we absolutely forbid any illegal drugs on any of our projects or vessels. You are all responsible adults, so make your own responsible decisions.*

*The weather can be nasty in PWS. We may experience heavy rain, or even snow. It might freeze at night. Please dress accordingly and bring a change of clothes. Most of you are very experienced outdoorsmen. I will not tell you what to wear other than to bring a rain suit and warm hat. Layers of synthetic or silk clothing work best in a marine environment. Cotton clothing is bad. If you get wet, it won't dry and you'll be very uncomfortable and cold. Hypothermia is a real danger. If you have concerns about this, please contact me. Likewise, bring warm sleeping gear. You might want a ground cloth for your tent.*

*As mentioned earlier, we will not take unnecessary risks due to bad weather. If it is raining.... unless it is projected to be sustained two-day downpour.... the cleanup will go ahead as long as the wind is not too bad. High winds create high surf and boating can become dangerous. Getting on and off beaches can become very difficult and dangerous. Also related to weather...if you must absolutely be back by Sunday night, reconsider if you really want to go on this trip. We will not risk bad weather to make anybody's schedule. If the weather turns bad while we are on site, we may have to wait until it moderates before we*

*will return. While it is improbable, we could be a day or two late returning to port. You might also want to pack a little extra food for that scenario.*

*There are lots of excellent anchorages in this area and campsite availability in the southwest sound should not be much of a problem. However, be prepared to camp in small groups. There may be no place to locate one or two large tent encampments. Chris Stinson from the Forest Service Glacier Ranger District will have additional comments about Leave-No-Trace camping. Please be sensitive to this issue and we will work on a method of dealing with it. We would prefer that volunteers camp in as large of groups as possible for logistical reasons. And, it is always fun for all of us to get to know each other Friday and Saturday evening in front of a big bonfire. Who's bringing the marsh mellows?*

*Please organize yourselves into groups of 4-8 so that a buddy or designated leader will always be able to account for you. If you have handheld VHF or FSR radios, please bring them along. Good communication is vital; both among members within your group, as well as with the motorboats in case of emergencies or in our efforts to shuttle crews beach crews. All volunteers will be assigned to particular boats for transport. We hope to have two Coast Guard Auxiliary Safety Patrol vessels on site this year. In addition, we will have direct communication with the Coast Guard and we will contact them for serious medical emergencies. We will have first aid kits aboard vessels, but if you have appropriate first aid kits for camping you might want to bring them. One per group should be adequate. Again, we expect you and your groups to be as resourceful and self-sufficient as possible when on the beaches. Help may be out of radio reach or too far away to respond immediately.*

*If there are any medical experts, EMTs, etc., among the volunteers, please let us know if we can contact you during the cleanup for help if necessary.*

*There may be cultural sites in the area we will visit. Please do not pick up or disturb any cultural artifacts you may encounter. If you do find a cultural artifact such as a net weight, seal oil lamp, arrowhead, etc., please do not disturb it, but get a GPS coordinate and then give that information directly to me. I then must report that information directly to proper authorities.*

*Please carpool to save fuel, tunnel and parking fees. Be at Alaska Sea Kayakers' shop in the Whittier Triangle on the east side of the harbor no later than **(time)**. That means you will need to make the **(time)** tunnel or stay over Thursday evening. There will be hot drinks, muffins or donuts available at Alaska Sea Kayakers. We will conduct a pre-departure briefing at **(time)** and hopefully*



*most vessels will then load and depart by **(time)** for the **(duration)** hour cruise to the cleanup area.*

*If you must drop out for some reason, please let me know ASAP. There are dozens more volunteers that would like to join us, but we don't have the passenger space.*

*See you in Whittier.*

*Chris Pallister*

## **Volunteer General Liability Waiver**

### **GULF OF ALASKA KEEPER**

#### **BEACH CLEANUP WAIVER, RELEASE OF LIABILITY AND ASSUMPTION OF RISK AGREEMENT**

In consideration of being allowed to participate in the Gulf of Alaska Keeper (GoAK) beach cleanup, and its related events and activities, I acknowledge and agree that:

1. Cleaning trash from beaches in Prince William Sound and the Gulf of Alaska is an inherently dangerous activity. Numerous risks of serious injury or death exist from accidents involving, but not exclusively: dangerous storms; hypothermia; sun or heat exposure; drowning; vessel transportation and transfer; rocky, slippery and dangerous shorelines; tool and trash related injuries; bears; and other unforeseen events. While equipment and personal discipline may reduce these risks, the risk of serious injury or death does exist. Because of the known inherent dangers associated with cleaning Prince William Sound and Gulf of Alaska beaches, GoAK requires that all **volunteers participating in the beach cleanup must be 16-years old or older**; and
2. I KNOWINGLY AND FREELY ASSUME ALL SUCH RISKS, both known and unknown, EVEN IF ARISING FROM THE NEGLIGENCE OF THE RELEASEES or others and assume full responsibility for my participation; and
3. I confirm that, to the best of my knowledge, I am in good physical and medical condition and have no physical conditions that would preclude my participation in the GoAK beach cleanup; and

4. I give permission to authorize personnel to administer first aid procedures as may be necessary and also permit such treatment procedures to be carried out at, and by local medical facilities or hospitals in the event of an emergency. I understand that any medical expenses will be billed directly to my insurance or me; and

5. I willingly agree to comply with the stated and customary terms and conditions for participation. If, however, I observe any unusual significant hazard during my presence or participation, I will remove myself from participation and bring such to the attention of the nearest official immediately; and

6. I willingly agree that any loss or damage of personal property used while providing volunteer services to GoAK, or to any other organization or individual involved with the Prince William Sound beach cleanup, is not reimbursable by any of the aforementioned parties; and

7. I, for myself and on behalf of my heirs, assigns, personal representative and next of kin, AGREE NOT TO SUE AND INSTEAD HEREBY RELEASE AND HOLD HARMLESS GoAK, its officers, directors, agents and/or employees; the Whittier Coast Guard Auxiliary; vessel operators and/or owners; any other business or private volunteers directly associated with the GoAK beach cleanup; and, other participants, sponsors, advertisers, and if applicable, owners and lessors of premises used to conduct the event ("Releasees"), WITH RESPECT TO ANY AND ALL INJURY, DISABILITY, DEATH, OR loss or damage to person or property. *WHETHER ARISING FROM THE NEGLIGENCE OF THE RELEASEES OR OTHERWISE.*

I HAVE READ THIS WAIVER, RELEASE OF LIABILITY AND ASSUMPTION OF RISK AGREEMENT, FULLY UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS BY SIGNING IT AND SIGN IT FREELY AND VOLUNTARILY WITH OUT ANY INDUCEMENT.

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Participant's Emergency Contact Information, Name and Phone Number

---

Participant's Printed Name and Personal Contact Information (Email, Phone, or Address)

---

Participant's Signature

---

Date Signed



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Ocean Service  
Marine Debris Program  
Office of Response and Restoration  
1305 East West Highway  
Silver Spring, Maryland 20910

Exxon Valdez Oil Spill Trustee Council  
441 W. 5<sup>th</sup> Ave., Suite 500  
Anchorage, AK 99501

To Whom It May Concern,

I am writing this letter in support of the Gulf of Alaska Keeper (GoAK) proposal for marine debris removal work under the Exxon Valdez Oil Spill (EVOS) Trustee Council FY2012 Invitation for Proposals.

The work that GoAK proposes to do will directly address the goal of removing persistent marine debris from the EVOS impacted area. They are also specifically suited to this work, possessing a unique combination of skill and experience. This combination has made them a recognized leader in marine debris removal in the state of Alaska, and specifically in the EVOS impacted areas of Prince William Sound and the Kenai Fjords beyond. They have a proven track record of leveraging significant volunteer and in-kind donation resources, as well as innovation in pioneering new removal techniques for the often remote areas in which they operate.

Through my work as the Marine Debris Program regional coordinator for Alaska, I have had the opportunity to view first-hand the performance of GoAK in the field. They are a dedicated group who works with persistence and ingenuity to complete the task at hand, and I am pleased to support their application to continue that good work.

Sincerely,

Peter Murphy  
Regional Coordinator - Alaska  
Genwest Systems at  
NOAA Marine Debris Program

*This letter expresses the opinion of the author and does not necessarily represent the opinion of the NOAA Marine Debris Program.*

## ATTACHMENT: Final GoAK 2009 MD Cleanup NOAA Report

NOAA Restoration Center

OMB Approval No. 0648-0472

Community-based Restoration Program (CRP)

Expires 05/31/2009

Progress Report Narrative Format

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### Project Title

**Gulf of Alaska Keeper 2009 Prince William Sound /Gore Point Marine Debris Remediation Project**

**Reporting Period** (06/01/09 – 09/30/10)

### Project Narrative (this section is required for the final comprehensive report only)

The coastline of Alaska is immense and much of it inaccessible by road. Although occasionally originating from local land-based sources, most marine debris is delivered to Alaska's remote coast by ocean currents. The vast coastline of Alaska receives most of its marine debris from offshore or foreign shipping and commercial fishing fleets, and everyday garbage from foreign countries and other sources. This debris can disrupt intertidal community structure, strangle marine mammals, and can be ingested by fish, birds, and mammals. It is also likely that plastic marine debris introduces toxic chemicals to the rich intertidal ecosystem. Gulf of Alaska Keeper (GoAK) crews and volunteers began cleaning marine debris from this coastline in 2001 and continue doing so today. In 2009, GoAK cleaned beaches in Prince William Sound and along the Kenai Peninsula in the Gore Point region.

### Methodology

Crews are transported by vessel to heavily-impacted remote sites to perform marine-debris cleanups. Manual labor and small tools are used to collect marine debris in plastic garbage bags. The collected debris, including debris too large to bag, is then transferred to a landing craft for transport to port where it is then transferred into 40-yard dumpsters. The dumpsters are then hauled to local landfills for dumping. In the field, some sorting of debris occurs with reusable floats, buoys and other items segregated. At port, all reusable items are given to commercial fishermen or other residents for reuse.

### Results/Progress to Date

From May 15 through August 31, 2009, an eight-person GoAK crew, with the assistance of volunteers and donated vessels, cleaned beaches in Prince William Sound and along the Kenai Peninsula Gore Point region. In addition, volunteers assisted GoAK in monitoring (re-cleaning) 12 Prince William Sound beaches and with conducting nearly 200 miles of MD surveys in eastern PWS.

## **Prince William Sound**

86 volunteers joined GoAK for a 3-day volunteer cleanup from May 15 through 17, removing MD from 50 miles of shoreline in western Prince William Sound from Lighthouse Point in Nellie Juan Bay south to Granite Bay. The volunteers collected 4 tons of marine debris, primarily consisting of discarded fishing nets and other gear. The GoAK crew also participated in the volunteer cleanup and loaded and transported the collected debris as the volunteers gathered it. Altogether, with the later GoAK crew cleanup combined with the volunteer cleanup included, approximately 61 miles of PWS shoreline were cleaned in the summer of 2009.

After the 3-day volunteer cleanup, the 2009 GoAK crew cleanup project focused on the northern shoreline of Montague Island in Zaikof and Rocky Bays. The Montague Island project occurred in two phases. For 13 days, from May 18 through May 30, the GoAK crew cleaned beaches in Zaikof Bay, removing 25 tons of marine debris. From August 14 through August 21, the GoAK crew cleaned beaches along the western shore of Rocky Bay, removing an additional 6 tons of marine debris. Altogether, 31 tons of MD were removed from approximately 11 miles of shoreline in Zaikof and Rocky Bays. Including the volunteer cleanup, approximately 35 tons of marine debris were removed from 61 miles of Prince William Sound beaches, shipped to Whittier, transferred to 40-yard dumpsters, and then trucked to the Anchorage landfill for disposal. Reusable floats, buoys, and fenders were placed in Whittier storage bins and given to the public and commercial fishermen for reuse. In that way, approximately 5% of the total collected PWS marine debris was recycled. Recycling marine debris in Alaska continues to be a difficult and expensive problem.

MD deposits in portions of Zaikof and Rocky Bays exceeded 2 tons per mile. Debris deposits on the west-central shoreline of PWS were generally much lighter, but unfortunately, there are many illegal net dumps in this area. Removing all the net dumps was beyond the scope of the volunteer cleanup. The net dumps are mostly comprised of discarded setnet gear such as old gillnets, lines, floats, and anchors. There still likely remain more than 15 tons of discarded nets along this coast, particularly along 15 miles of shoreline between Lighthouse Point and Eshamy Bay.

In addition to the Prince William Sound MD cleanup, GoAK, along with volunteers, conducted over 200 miles of marine-debris surveys in northern and eastern Prince William Sound. 500 hours of volunteer time were donated to the MD survey. GoAK and volunteers also visited 12 marine-debris monitoring sites scattered throughout PWS, re-cleaning all of them and cataloging the accumulated marine debris by quantity, type, and photo in an ongoing study of marine debris accumulation rates. Over 320 volunteer hours were spent on the monitoring project. In total, volunteers contributed 3780 hours to the Prince William Sound portion of the 2009 cleanup and 300 hours supporting the Gore Point cleanup. GoAK board members contributed an additional 1600 hours of volunteer time.

Unfortunately, there is a significant amount of MD annually drifting upon our beaches. It appears from 4 years of PWS monitoring data that the composition of newly arriving debris is changing from predominantly commercial fishing debris to a mixture of more common household and industrial plastic debris. Much, if not most, of the newly arriving MD in PWS is from western Pacific countries and is not locally-generated debris.

### **Gore Point Region**

The Gore Point phase of the 2009 marine debris cleanup project started June 6 and continued until July 30. The GoAK crew cleaned approximately 50 miles of beaches along Nuka Passage and on Nuka Island north of Gore Point. They also cleaned 35 miles of exceedingly dirty beaches west of Gore Point from Chugach Bay to the southern entrance of Port Chatham. They also cleaned beaches around Perl, Elizabeth and East Chugach Islands. In total, 40 tons of MD were removed from 85 miles of shoreline in the Gore Point area. Debris in this area is highly concentrated into dense pockets often being driven hundreds of feet into the surrounding forest. GoAK also re-cleaned the East, West and North Gore Point beaches, while collecting data regarding the composition and accumulation rate of marine debris deposited in the past year. That data is included in a separate document submitted with this report.

This entire region directly abuts the Gulf of Alaska and is heavily fouled with commercial fishing debris, particularly heavy nets. Approximately 80% of the debris by weight and volume is commercial gear such as nets, lines, floats, buoys and fish totes. The collected MD was hauled to Seward and Homer for disposal in the Kenai Peninsula Borough landfill. The GoAK crew sorted this debris and recycled useable floats, buoys, fenders, and other gear. In this way, approximately 5% of the total volume of marine debris was recycled by giving it to local artists, commercial fishermen and others that had uses for it.

In addition to NOAA funding for this project, the Marine Conservation Alliance Foundation, Princess Tours, BP, Alyeska Pipeline Company, and dozens of private individuals donated funds to the Gore Point project. Additionally, the Kenai Peninsula Borough, the City of Whittier, Homer and Seward all facilitated the cleanup. The Kenai Borough waived landfill fees. Seward, Homer, and Whittier donated harbor facilities and waived fees. Through the course of the summer, 104 volunteers and GoAK members donated over 5380 hours of labor. In addition, 9 charter and private vessels were donated for a total of 82 vessel days to transport volunteers, provide support, assist in monitoring projects and survey work, and to haul marine debris.

### **Monitoring and Maintenance Activities**

Surveys of MD designated PWS and Gore Point beaches are performed annually to identify debris types and concentration densities. Designated MD monitoring sights are cleaned annually and debris cataloged in an ongoing study of marine debris accumulation. Monitoring reports are attached.

### **Community Involvement**

Volunteers assisted in the cleanup itself as well as donating funds, food, transportation, and equipment. Communities of Whittier, Seward and Homer donated wharfage, slip, launch, parking, dumpster rental, and MD transport disposal fees. The Kenai Peninsula Borough waived landfill disposal fees. The Whittier charter fleet donated vessels and crew to transport volunteers and provide logistical support. Many private individuals donated vessels and crews to help with all portions of the cleanup.

### **Outreach Activities**

The cleanup activities performed by Gulf of Alaska Keeper during previous MD projects and for this grant have resulted in articles in the local Anchorage Daily News, the New York Times, Alaska Magazine, Homer News, and a show on NPR and feature stories on the local TV news. GoAK is presently working on a professional video production about MD cleanups in PWS and along the Gulf of Alaska coast.

### **Supporting Materials**

Charts of project areas and beaches cleaned attached

Gore Point monitoring data attached

Prince William Sound monitoring data attached

Photos from the Prince William Sound and Gore Point cleanups sent on DVD via mail

N and E PWS survey charts attached

GoAK marine-debris PowerPoint attached

Please include any supporting materials relating to the project, such as articles/news clippings, project photographs (before, during, and after--high resolution images on CD ROM are appreciated), project maps, related web sites, and evidence of NOAA Community-based Restoration Program support (e.g. photographs of signs at project sites, funding credit on outreach materials, press releases with complete program name, etc.)

### **Funding Information (Cash and In-kind)**

1. Itemized Budget table (similar to example below) showing expenses incurred during the reporting period, for both NOAA funds and matching contributions, as follows. Budget categories should correspond to those described in the approved proposal.

Budget Category (e.g. personnel, supplies, contractual, etc.)	NOAA Funds	Matching Contributions	Total Expense	Nature (cash or in-kind) and Source of Match
Personnel	0	\$75,600 \$32,000	\$107,600	In-kind/volunteer In-kind/GoAK/CP
Travel	0	\$1,200	\$1,200	In-kind/volunteer
Equipment	0	0	0	NA
Supplies	0	\$5,000 \$2,500 \$2,500 \$2,300 \$4,400 \$550	\$17,250	Cash/BP Cash/Princess Tours Cash/Alyeska Cash/Volunteers In-kind/Volunteer food In-kind/Grantee food
Contractual	\$145,000	\$99,861 \$2,500 \$1,500 \$2,500 \$2,500 \$76,500 \$19,500	\$204,861	Cash/MCAF fed lever In-kind/Kenai Borough In-kind/City of Whittier In-kind/City of Homer In-kind/City of Seward In-kind/Private vessels In-kind/Charter vessels
Accountant	0	\$1,800	\$1,800	Cash/Grantee
TOTAL	\$145,000	\$332,711 (\$99,861) fed leverage) (\$232,850) cash/in-kind)	\$332,711	



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2. Budget Narrative: Briefly describe expenditures by category and explain any differences between actual and scheduled expenditures. Include documentation of volunteer hours and in-kind donations.

The Prince William Sound/Gore Point Marine Debris Remediation Project is a multi-year ongoing project that occurs in multiple phases each season. The initial Prince William Sound cleanup phase generally occurs in May and June, and the second phase late June through August in the Kenai Peninsula Gore Point region. However, in 2009 GoAK crews worked in PWS from May 15 through May 30 and then from August 14 through August 21. The GoAK crew moved to the Gore Point region and worked from June 6 through July 30. Both cleanup project areas utilize the same volunteers and contractors, but occur in different locations due to local sea and weather conditions and the availability of volunteer and other resources during each phase. Harsh storms plagued the Gore Point cleanup the last two weeks of the project and drove the GoAK crew back into PWS to work. Although both phases are the same general project, NOAA funds are used exclusively to pay for contract work on the Gore Point phase of the project. However, because of the interchangeability of volunteers, donated vessels, equipment and supplies between both phases of the project, expenditures and donations for both phases are included in this report. Therefore, this report's budget is much larger than that reflected in the grant budget, but does not in any way reflect budget overrun. All expenses for the 2009 project are met through a combination of this NOAA grant, cash donations, federal leverage grants or in-kind volunteer contributions. The 2009 budget has been met for the entire project and all project goals were exceeded and on time, with over 146 total miles of coastline cleaned and 75 tons of marine debris successfully transported to landfills for disposal.

There is still \$25,000 in contractual debt owed to be paid from the balance of the NOAA award funds still available.

Total Expenses in the above Funding Information includes the value of in-kind donations utilized on the cleanup project as well as actual cash expenditures.

Personnel

Volunteers contributed 3780 hours to the 2008 Prince William Sound/Gore Point Marine Debris Remediation project. At \$20 per hour this in-kind contribution is valued at \$75,600. Gulf of Alaska Keeper board members and Chris Pallister donated an additional 1600 hours organizing, managing, providing logistical support, and conducting marine debris surveys and monitoring studies. At \$20 per hour this in-kind contribution is valued at \$32,000. Total volunteer labor in-kind contribution is **\$107,600**.

Travel

Volunteers and GoAK board members donated travel costs to the cleanup vessel departure sites. Those costs including fuel, parking and tunnel fees totaled an in-kind donation of **\$1,200**.

Equipment

Grantee did not purchase new equipment during the duration of the 2009 project

Supplies

Corporate and private donors contributed **\$12,300** cash which was used to purchase fuel for the 2009 cleanup. Volunteers and Grantee provided food for the project workers, an in-kind donation of **\$4,950**.

Contractual

Contract cleanup costs to date were paid with the **\$170,000** NOAA grant of which **\$145,000** was expended during this reporting period and with **\$99,861** of federal leverage money from the Marine Conservation Alliance Foundation. Contract costs included those for the professional cleanup crew and support vessels, landfill disposal fees, transportation costs of moving marine debris from port to landfill, and project liability insurance for total contract cash expenditures to date of **\$244,861**. The City of Homer, the City of Whittier, the City of Seward and the Kenai Peninsula Borough waived wharfage, slip, parking, launch, dumpster rental and storage, and landfill disposal fees for the project, a total in-kind donation of **\$9,000**. Private individuals donated 6 crewed vessels for 69 days, an in-kind contribution of **\$82,500**, and charter companies donated 3 crewed vessels for a total of 13 days, an in-kind donation of **\$19,500**. In-kind contributions total **\$111,000**. Total contractual cost including cash and in-kind within the reported time period was **\$355,861**.

Accountant

GoAK paid an accountant **\$1,800** for 2009 project related bookkeeping and accounting.

**NOAA Restoration Center**

OMB Approval No. 0648-0472

**Community-based Restoration Program (CRP)**

Expires 05/31/2009

**Project Data Form**

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**CONTACT INFORMATION**

Contact Name: **Chris Pallister**

Contact Title: **President**

Organization (Grantee): **Gulf of Alaska Keeper**

Street Address: **5933 E. 12th Ave**  
City: **Anchorage** State: **AK** Zip: **99504**  
Phone: **907-345-0166** Fax: **907-345-0166**  
E-mail: **chris@alaska.net**  
Organization website (if applicable): **goak.org**

## PROJECT INFORMATION

Project Title: **Gulf of Alaska Keeper Prince William Sound/Gore Point Marine Debris Remediation Project**

Project Award Number: **NA09NMF4630057** Project Reporting Period: **06/01/09-09/30/10**

**Project Location : Prince William Sound and Kenai Peninsula Gore Point Region, AK**

City: **Whittier, Seward, and Homer, Alaska**

County: State: **AK** Zip Code:

Congressional District(s): **Alaska**

Landmark (e.g. road intersection, beach):

Land Ownership (check one): Public: Private: Both:  
x

Geographic Coordinates (in decimal degrees, if readily available)

Longitude (X-coord): Are there multiple project sites for this award?\* Yes No  
Latitude (Y-coord): x

River Basin:

Geographic Identifier (e.g. Chesapeake Bay): **Prince William Sound, Kenai Peninsula Gore Point Region**

Project Start Date: **Summer 09** Project End Date: **Winter 10**

Project Volunteers

Number of Volunteers: **104** Volunteer Hours: **5380**

***Brief Project Description (1-2 sentences) describing project and what it hopes to accomplish:***

**This project's primary objectives are to continue an ongoing project to restore critical coastal habitat in Prince William Sound and along the Kenai Peninsula Gore Point region by removing marine debris and to educate the public about the severe environmental and economic destructive impacts caused by marine debris.**

***List of Project Partners and their contributions (e.g. cash, in-kind, goods and services, etc.)***

**Alyeska Pipeline \$2,500 cash**

Blaker, Ross \$12,000 in-kind, vessel and crew donation  
 BP \$5,000 cash  
 City of Whittier \$1,500 in-kind, wharfage, launch, dumpster storage fees  
 City of Homer \$2,500 in-kind, wharfage, launch, slip, parking fees  
 City of Seward \$2,500 in-kind, wharfage, launch fees, parking fees  
 Coombes, John \$28,500 in-kind, vessel and crew donation  
 Gulf of Alaska Keeper \$8,550 in-kind management and logistical support, food donation  
 Kenai Peninsula Borough \$2,500 in-kind, landfill disposal fees  
 Lazy Otter Charters \$4,500 in-kind, vessel and crew donation  
 Marine Conservation Alliance Foundation \$99,861 cash  
 NOAA \$145,000 cash  
 Pallister, Chris \$61,000 in-kind, volunteer hours, vessel and crew donation  
 Princess Tours \$2,500 cash  
 Sound Eco Charters \$4,500 in-kind, vessel and crew donation  
 Volunteers \$75,600 in-kind volunteer hours (3780), and \$4,400 in food and travel donations  
 Private donations \$2,300 cash donations  
 Walk About Charters \$10,500 in-kind, vessel and crew donation  
 Whitney, John \$5,000 in-kind, vessel and crew donation

*If permits are required, please list the permits pending and those acquired to date:*

Multi-year land use permit acquired by MCAF  
 State of Alaska land use, CZMA permit acquired by GoAK  
 Chugach Alaska Native Corporation land-use permit acquired  
 Port Graham Native Corporation land-use permit acquired

**RESTORATION INFORMATION-** Please complete this section to the best of your ability. Information below will be confirmed via site visit or phone call by NOAA staff before the close-out of an award.

List the habitat type(s) and acres restored/enhanced/protected or created to date (cumulative) and remainder to be restored/enhanced/protected or created (projected) with CRP funds by the end date of the award. If the project restores fish passage, list the stream miles opened upstream and downstream for fish access. Actual and Projected columns should add up to the total(s) for acreage to be restored with CRP funds indicated in the approved proposal.

<b>Habitat Type</b> (e.g. tidal wetland, oyster reef, mangrove)	<b>Miles of beach restored</b>	<b>Tons of debris</b>	<b>Actual Stream Miles Opened for Fish Access</b>	<b>Projected Stream Miles Opened for Fish Access</b> (i.e. Remainder to be restored with CRP funds by award end date)
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Tidal/Coastal-Gore Point	85 (cleaned areas of beaches average 75 yards in width)	40 tons	n/a	n/a
Tidal/Coastal-PWS	61 (cleaned areas of beaches average 25 yards in width)	35 tons	n/a	n/a

What indirect benefits resulted from this project? (e.g. improved water quality, increased awareness/stewardship):

The cleanup promotes an increased awareness of the marine debris problem by all parties involved with the cleanup. The cleanup also promotes increased stewardship of coastal resources by volunteers as well as by those residents of the communities where the project's marine debris is disposed. Publicity of the project concerning the cleanup project also achieves the same results..

List of species (fish, shellfish, invertebrates) benefiting from project (common name and/or genus and species):

- |                                 |                                 |
|---------------------------------|---------------------------------|
| 1. Shorebirds, sea birds        | 6. River otters                 |
| 2. Salmon                       | 7. Intertidal communities       |
| 3. Submerged aquatic vegetation | 8. Sea otters                   |
| 4. Sea lions                    | 9. Herring                      |
| 5. Harbor seals                 | 10. Brown and black bears, deer |

**MONITORING ACTIVITIES**

List of monitoring techniques used (e.g. salinity, fish counts, vegetation presence/absence):

- |   |    |
|---|----|
| 1. Initial pre-cleaning MD beach surveys, cataloging of debris by type and photo              | 6. |
| 2. Annual MD monitoring site studies, MD accumulation rate study cataloging by type and photo | 7. |

- |  |     |
|--|-----|
| 3. <b>Vegetation ground-cover<br/>regeneration photo documentation,<br/>Gore Point</b> | 8.  |
| 4.   | 9.  |
| 5.   | 10. |

Report Prepared By: **Chris Pallister**  
Signature

**04-15-09**  
Date

**Please send semi-annual and final progress reports and supporting materials to:**

NOAA Restoration Center F/HC3  
1315 East-West Highway  
Silver Spring, MD 20910  
ATTN: NOAA Community-based Restoration Program Progress Reports

**The Progress Report Narrative Format and Project Data Form are available on the NOAA Restoration Center website at:**

**[http://www.nmfs.noaa.gov/habitat/restoration/projects\\_programs/crp/index.html](http://www.nmfs.noaa.gov/habitat/restoration/projects_programs/crp/index.html).**

**Electronic submissions are encouraged. Please submit electronic progress reports on PC compatible floppy disk or CD ROM in Microsoft Word, WordPerfect or PDF formats.**

## **ATTACHMENT: Preliminary GoAK 2010 NOAA Removal Report**

Report on Removing Marine Debris from Beaches in Prince William Sound Alaska and from Shorelines in the Gore Point Region of the Kenai Peninsula in 2010

By

Chris Pallister  
Gulf of Alaska Keeper

October 30, 2010



Guiding the landing craft to the beach in South Twin Bay for loading

Preliminary Report for NOAA

## Introduction

Gulf of Alaska Keeper (GoAK) prepared related proposals for cleaning beaches in Prince William Sound (PWS) and in the Gore Point region of the Kenai Peninsula. MCAF partially funded a portion of the PWS project with money from the National Oceanic and Atmospheric Administration's FY 08 Grant NA08NOS4630356. NOAA funded a portion of the 2010 Gore Point region cleanup with Grant NA10NMF4630184. Thousands of hours of volunteer labor combined with to a professional cleanup effort led to another productive cleanup season. This report describes the work and results of the 2010 cleanup project.

## Cleanup Methods

Prince William Sound is located in the most northerly portion of the Gulf of Alaska. The composition of the beaches is similar to that of Outer Southeast Alaska with many uneven bays and islands. The shore is rocky with sand/pebble interspersed. Some beaches within PWS are relatively protected while the beaches on the outside are subjected to high winds and cleanups may only take place during periods of calm weather.

GoAK uses a combination of volunteer and professional crews to clean beaches in PWS.

### *2010 Volunteer Cleanup*

Gulf of Alaska Keeper's 2010 9<sup>th</sup> annual Prince William Sound volunteer marine debris (MD) cleanup was originally scheduled for May 14 through May 16, with some boats and volunteers planning to depart a day early. However, a large storm blew into PWS and the cleanup had to be cancelled at short notice and rescheduled for the following week. Up to 100 volunteers and 12 vessels were expected for the original cleanup date. Because of the rearranged schedule, most volunteers, who had arranged time off from work for the original cleanup date, and 6 vessels, could not participate the following weekend. Larger vessels from the Whittier charter fleet were unable or, understandably, unwilling to change or drop booked charters to accommodate the rescheduled volunteer cleanup so we were left with only a limited ability to transport volunteers on the alternate weekend.

### *GoAK Professional Cleanup*

The GoAK professional cleanup is comprised of experienced laborers and crewmen who have worked MD projects previously. They work in the more remote and rugged portions of the PWS area and the outer Kenai Peninsula coast where it is prohibitively difficult to use volunteers efficiently. They also do the collection of the MD collected by the volunteers as well as sort and weigh all the debris.

## Cleanup Results

### *Volunteer Cleanups*

The first volunteer cleanup took place May 21 through 23 with only 6 vessels and 27 volunteers (Table 1). However, we compensated somewhat for losing so many cleanup volunteers by scheduling an additional volunteer cleanup later in the summer (August 5 through 8) and by the GoAK professional crew donating 4 days in late June cleaning beaches on Evans and Elrington Island.



During the May volunteer cleanup, the 27 volunteers in 6 vessels picked up approximately 4 tons of MD in and near Shelter Bay on Evans Island in southern PWS (Table 2). The volunteers spent 810 hours during the May cleanup to remove debris from 10 miles of shoreline. All of the shoreline within Shelter Bay was cleaned as well as beaches east of Shelter Bay in a large unnamed cove. Most of the MD was staged for later pickup.

The MD collected in Shelter Bay during the May volunteer cleanup was, both by weight and volume, primarily lines and nets. As such, the debris was quite heavy, with the weight of an average full yellow MD garbage bag closer to 40 pounds than the typical 22 to 25 pounds.

In addition to the 134 bags of debris collected during the May cleanup, the volunteers also gathered nearly as much MD, such as large piles of nets and line, refrigerators, large floats, plastic pipe, buckets, tires, and rolls of heavy plastic mesh all too large or heavy to bag. Several beaches in Shelter Bay also had large amounts of Styrofoam on them, much of it clearly the remnants of dock floats.



Volunteers with a pile of Shelter Bay MD



Volunteers cleaning a Shelter Bay beach

In late June, a volunteer 6-man GoAK crew spent 240 hours over four days cleaning beaches in and near Squirrel Bay on the southwest end of Evans Island in Fox Farm Harbor on Elrington Island. Heavy rains and strong winds hindered this project. However, 87 large bags of debris along with a large amount of non-baggable MD, together weighing about 3 tons, were removed from 6 miles of beaches in the Squirrel Bay area and taken to Seward for disposal. The crew began cleaning Fox Farm Harbor after finishing Squirrel Bay. The debris they collected in Fox Farm Harbor was staged for later collection during the August volunteer cleanup.

On August 5 through 8, GoAK organized another small volunteer cleanup in the Shelter Bay and Fox Farm Harbor area. Although 19 volunteers on 5 vessels started out for the cleanup, one vessel with 5 volunteers onboard had to turn back with engine troubles. Three vessels and 13 volunteers spent 4 days cleaning beaches on northern Evans Island east of Shelter Bay, in Fox Farm Harbor and also the beach at the head of North Twin Bay across the isthmus from Fox Farm Harbor. The MD collected during this cleanup consisted of a mostly Styrofoam, bottles and other light debris in Fox Farm Harbor. North Twin Bay had a couple significant piles of line, some minor nets, a large fiberglass cleaning table possibly from a sunken commercial fishing boat, and some mid-water trawl floats. However, hundreds of beverage bottles, Styrofoam, buckets, and other general MD made up the bulk of the 52 bags of debris collected in North Twin Bay. This crew also loaded MD staged in Fox Farm Harbor and Shelter Bay from the previous two volunteer cleanups into the landing craft. Another vessel and one volunteer re-cleaned beaches on the east side of Green Island. This vessel transported one load of debris to the landing craft near Shelter Bay and another load back to Whittier. During this cleanup 6 tons of debris were collected and hauled to Whittier. About 1 ton of the MD was removed from 2 miles of new shoreline along with another 4 tons from the previous cleanups. Another ton was hauled directly back to Whittier from Green Island. Volunteers donated 610 hours to the August cleanup effort. Altogether, the 3 volunteer cleanups removed 8 tons of debris from 16 miles of southern PWS island beaches while expending 1660 volunteer hours and 42 vessel days. The beaches cleaned in these efforts were all 65 to 80 miles from port requiring transit times from port of 8 to 10 hours; so many volunteer hours were spent traveling to and from cleanup project sites.

### ***Professional Cleanup***

From May 17 through May 30, a 7-man GoAK professional crew finished cleaning beaches in Rocky Bay and Zaikof Bay, the completion of 3 seasons of cleanup efforts in that area. One volunteer also joined this cleanup project, donating 140 hours to the effort.

Winter storms had deposited a considerable amount of new debris on the northwest shore of Rocky Bay, a shoreline cleaned just the previous summer, so the crew spent two days again cleaning that shore. They next spent 4 days cleaning the remainder of Rocky Bay along the southeast shore toward Middle Point and then 6 days around Middle Point into the northwest shoreline of Zaikof Bay. Two days of this project were spent transiting to and from the job site, 75 miles from Whittier.

Two loads totaling 11 tons of debris were hauled back to Whittier for disposal in dumpsters. One was a large load, 5 tons, and the last load a massive load of 6 tons. Near the end of the project, the landing craft experienced an engine failure. From that moment on it became a non-motorized barge towed by a larger crew vessel. The crew took this opportunity to load the landing craft beyond what they would normally load it if it was operating under its own power. The landing craft was then towed back to Whittier. In that way, they were able to completely finish the Zaikof and Rocky Bay cleanup without leaving any debris staged in the field.

Table 1. Date, location beach, latitude, longitude, length and width of beach, natural accumulation area, type of accumulation, number of trawl net samples and number of HSDN samples.

Date	Location	Beach	Latitude	Longitude	Length of Beach	Width of Beach	Natural Accumulation Area	Trawl Net Samples	HSDN samples
May 20-23 Volunteer	Rocky Bay	Reclean	60.20.25	147.08.49	7,920	25	Yes		
May 18-21	Rocky Bay	Southshore	60.20.45	142.03.06	4,400	30	Yes		
August 5-8 Volunteer	Southwest Evans Island	Fox Farm Harbor	59.38.52	148.10.77	1,320	20	Yes	2	1
August 5-8 Volunteer	Southwest Erlington	North Twin Bay	59.58.28	148.10.92	1,320	25	Yes	2	
May 20-23, August 5-8	North Evans Island	Shelter Bay Beaches			17,600	15	Yes	6	
June 14-17	Southwest Evans Island	Squirrel Bay	60.00.36	148.08.07	10,560	25	Yes	7	1
June 24-30	Zaikof Bay	Middle Pt	60.20.33	147.00.08	880		Yes		
Total Yards					44,000			17	2

The amount, type, and density of debris varied by location (Table 2). The largest and densest deposit was in Zaikof Bay. By percentage, the largest amount of debris was comprised of trawl web, the majority which came from Rocky and Zaikof Bays which are situated near the outer coast on Hinchinbrook Entrance (Table 3, Figure 1). The second most numerous item was other non-vessel related debris, the majority which came from the inner PWS.

Again, as in previous years, nets and other derelict commercial gear comprised the majority of the debris collected. Large trawl nets were common in both bays. Pieces of high-seas drift net were also common but not in the large size commonly found with trawl nets. Presumably, the light-weight mesh in the HSDNs deteriorates more quickly and the nets break into smaller pieces. A couple of sizable local gill nets were also removed from Rocky and Zaikof Bay.

As in past years, GoAK followed MCAF's protocol for net sampling. Over the course of the season, from Prince William Sound to Elizabeth Island, GoAK collected samples from 109 derelict nets and sent the samples to MCAF for analysis.



Zaikof Bay trawl net (top) and HSDN with other debris (bottom)



Table 2. Type and weight of debris by location and pounds per 100 yards.

Location	Beach	Trawl net	Crab line	Domestic Gill net	HSDN	Floats	Misc other lines	Other Fishing related	Banding	Plastic Beverage Bottles	Plastic Non-Beverage Containers	Cans (all types)	Foam	Other non- vessel related	Total Weight	Pounds per 100 YARDS
Rocky Bay	Reclean	1,050	150	150	30	150	450	30	30	150	300	30	150	330	3,000	38
Rocky Bay	Southshore	2,800	350	140	70	700	700	350	70	140	280	-	700	700	7,000	159
Southwest Evans Island	Fox Farm Harbor	40	40	8	16	40	120	40	8	40	120	16	120	192	800	61
Southwest Erlington	North Twin Bay	75	300	-	-	75	150	195	15	75	75	15	75	450	1,500	114
North Evans Island	Shelter Bay Beaches	2,400	800	400	-	240	800	400	80	160	240	80	800	1,600	8,000	45
Southwest Evans Island	Squirrel Bay	1,500	1,200	-	120	300	300	300	60	300	300	60	600	960	6,000	57
Zaikof Bay	Middle Pt	5,400	600	600	600	1,200	1,200	120	120	120	240	120	600	1,080	12,000	1,364
	Total	13,265	3,440	1,298	836	2,705	3,720	1,435	383	985	1,555	321	3,045	5,312	38,300	87

Table 3. Percentages of debris by location and overall.

Location	Beach	Trawl net	Crab line	Domestic Gill net	HSDN	Floats	Misc other lines	Other Fishing related	Banding	Plastic Beverage Bottles	Plastic Non-Beverage Containers	Cans (all types)	Foam	Other non- vessel related
Rocky Bay	Reclean	35%	5%	5%	1%	5%	15%	1%	1%	5%	10%	1%	5%	11%
Rocky Bay	Southshore	40%	5%	2%	1%	10%	10%	5%	1%	2%	4%	0%	10%	10%
Southwest Evans Island	Fox Farm Harbor	5%	5%	1%	2%	5%	15%	5%	1%	5%	15%	2%	15%	24%
Southwest Erlington	North Twin Bay	5%	20%	0%	0%	5%	10%	13%	1%	5%	5%	1%	5%	30%
North Evans Island	Shelter Bay Beaches	30%	10%	5%	0%	3%	10%	5%	1%	2%	3%	1%	10%	20%
Southwest Evans Island	Squirrel Bay	25%	20%	0%	2%	5%	5%	5%	1%	5%	5%	1%	10%	16%
Zaikof Bay	Middle Pt	45%	5%	5%	5%	10%	10%	1%	1%	1%	2%	1%	5%	9%
	Overall	35%	9%	3%	2%	7%	10%	4%	1%	3%	4%	1%	8%	14%

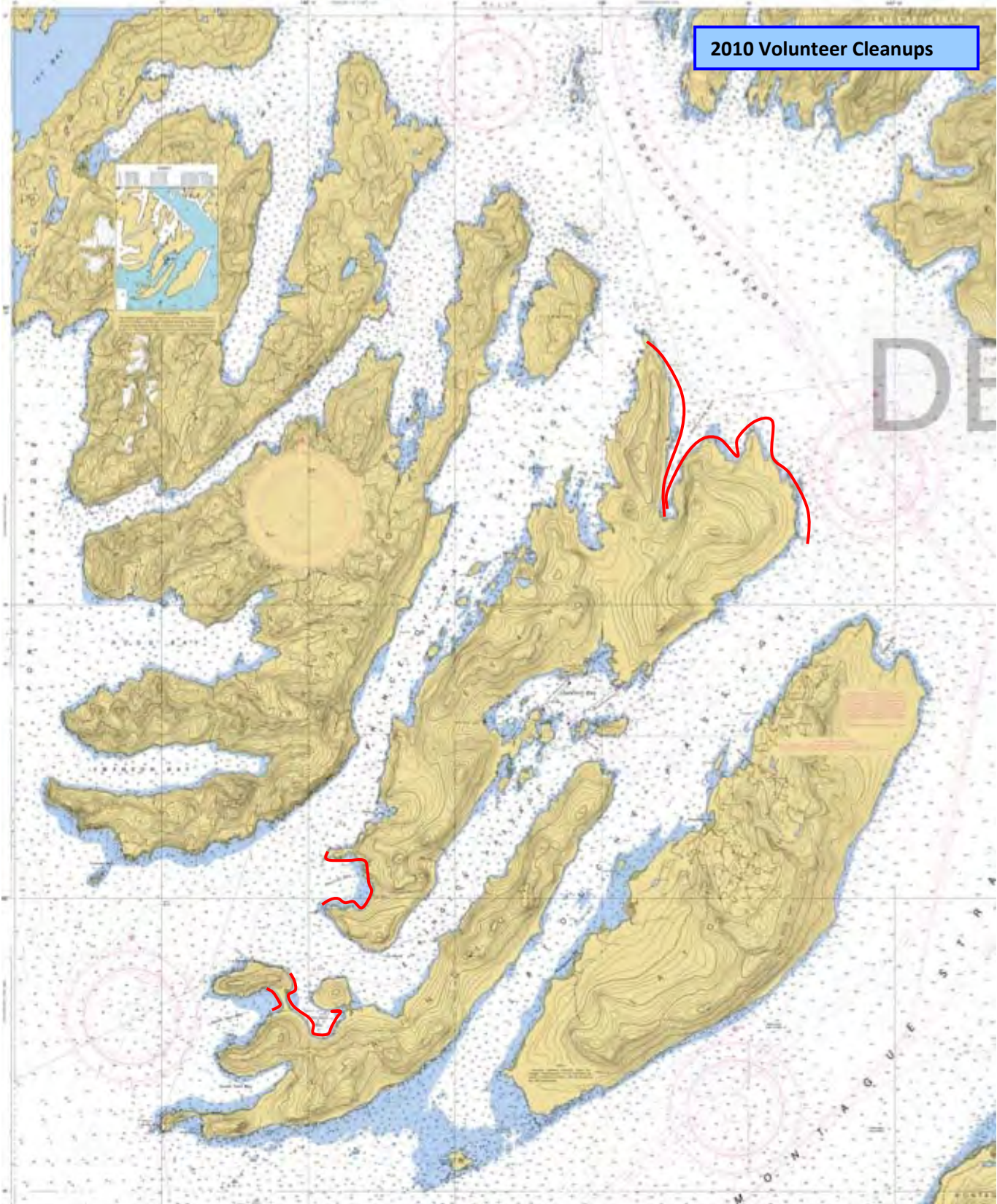


Some of the many bags of nets and lines removed from Shelter Bay



Volunteer with MD pile in Shelter Bay

Styrofoam blocks litter Shelter Bay beach



**Monitoring Cleanups**

From July 9<sup>th</sup> through July 14<sup>th</sup>, 8 volunteers cleaned 10 MD monitoring sites in PWS. From September 6<sup>th</sup> through 9<sup>th</sup>, two volunteers cleaned monitoring sites on Peak Island and Axel Lind Island. 560 volunteer hours and 16 vessel days were donated to the PWS MD monitoring project.

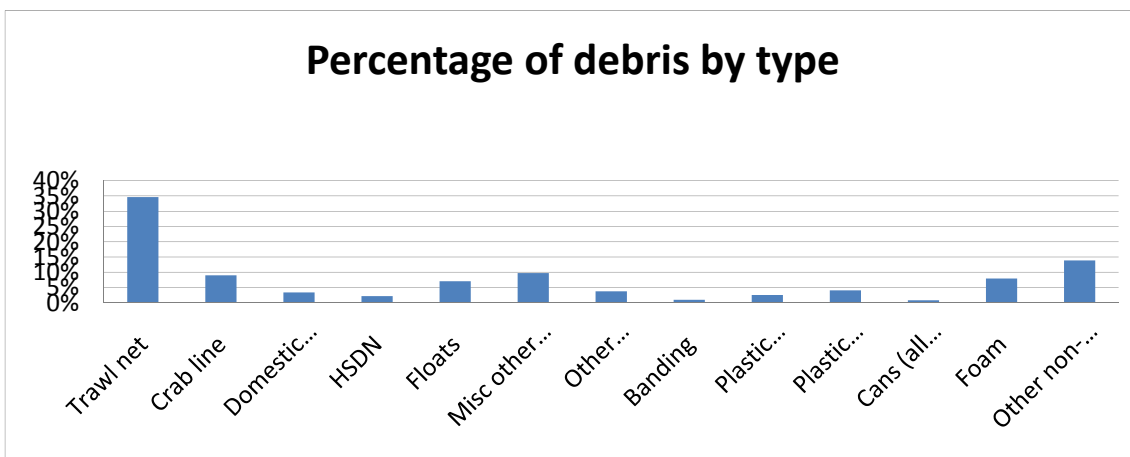
Storms the previous winter had deposited significant amounts of new debris on east facing monitoring beaches. Western and sheltered sites were only lightly impacted.

There is still a significant amount of derelict commercial fishing gear coming ashore including nets, line, and floats. Unfortunately, one moderate-sized trawl net on a monitoring site will often outweigh all the other site debris which may largely consist of numerous chunks of Styrofoam, numerous packing bands, and over a hundred plastic bottles. This disparity illustrates one inherent difficulty in collecting useful, or even fair, monitoring data. For instance, does one grounded net cause more environmental damage than all the other debris on a site just because the net is the largest item there? That is highly doubtful, but a derelict net certainly has stronger negative public perceptions attached to it than chunks of phthalate loaded Styrofoam do. This highlights possibly the most important aspect of the MD monitoring project in that data collected from the sites clearly indicates that commercial fishing isn't anywhere close to being the sole party responsible for the marine debris problem and that much of the non-commercial fishing debris is as bad if not worse than fishing debris for the environment.



Nets from Day Care Cove and Ingot Island Monitoring Sites

Figure 2. The percentage of debris by type.







Sorting MD on Mega Byte beach monitoring site



Sorting MD on Snug Harbor monitoring site



Trawl and other floats from the Peak Island Monitoring Site

A noticeable MD trend on the monitoring sites is the increasing numbers of beverage bottles particularly from Asian countries.



Beverage bottles on Peak Island site

Asian beverage bottle, Peak Island site

Among other uses, MD data collected on the monitoring sites will be useful for calculating the total amount of debris being deposited in PWS, for tracking trends in the type of debris arriving annually, and possibly for identifying the debris source. The following spreadsheet tracks selected categories of the MD quantified annually on PWS monitoring sites. Approximately 130 categories of MD are quantified at the monitoring sites, but these eight categories were selected for further analysis because of certain characteristics and to track specific trends. Data reports for each of the 2010 MD monitoring sites will be submitted separately from this report.

Table 4. Monitoring site results for 2007 through 2010.

Site Item	2007													2008												
	1	17	7	4	2	3	15	5	6	16	8	14	Total	1	17	7	4	2	3	15	5	6	16	8	14	Total
Buckets , 7 gallons (#)	0		2	1	0	1	1	0	4		2	0	11	0	2	0	3	1	0	0	0	3	0	1	0	10
Bottles- Plastic Beverage (#)	6		17	3	29	13	0	1	30		10	1	110	7	16	8	1	13	0	2	0	5	24	46	2	124
Bottles –Plastic Other (#)	2		23	12	25	10	0	1	39		30	1	143	15	17	14	11	7	1	3	0	3	7	104	2	184
Floats-HSDN (#)	10		11	0	4	8	0	1	17		5	0	56	4	3	9	0	7	1	0	0	0	4	5	2	35
Floats-Domestic GN (#)	4		3	0	1	10	0	1	6		0	0	25	1	1	3	1	0	0	0	0	5	1	4	2	18
Lines/ropes (lb)	30		9	20	7	0	0	2	38		23	8	137	0	0	13	52	0	1	7	0	124	16	61	19	293
Styrofoam (lb)	1		5	1	15	1	0	1	11		5	3	43	11	24	0	0	32	1	0	1	64	39	4	0	176
Bait Containers																										
Total Weight	47		94	37	138	15	32	3	130		339	23	858	25	243	102	108	692	28	21	10	948	95	811	54	3137

Site Item	2009													2010												
	1	17	7	4	2	3	15	5	6	16	8	14	Total	1	17	7	4	2	3	15	5	6	16	8	14	Total
Buckets , 7 gallons (#)	0	0	0	1	1	0	0	0	0	1	5	0	8	1	0	0	0	2	0	0	0	3	1	4	0	
Bottles- Plastic Beverage (#)	5	9	0	5	15	1	1	1	51	19	36	3	146	1	24	12	18	21	6	2	1	108	61	67	10	331
Bottles –Plastic Other (#)	3	11	5	8	5	1	0	2	36	5	28	0	104	4	11	10	10	12	2	0	1	70	18	101	2	241
Floats-HSDN (#)	0	1	0	1	0	1	1	0	18	1	4	0	27	0	1	1	1	0	0	0	0	6	11	3	2	25
Floats-Domestic GN (#)	0	1	0	2	0	0	0	0	3	1	3	1	11	0	1	1	1	0	0	0	0	6	11	3	2	25
Lines/ropes (lb)	0	2	8	40	3	0	10	1	165	3	10	5	247	4	9	11	18	7	0	2	1	170	19	45	5	291
Styrofoam (lb)	0.1	0.1	0.1	0.1	0.5	0.2	0	0	19	10	0.1	0	30.2	1	1	1	0	16	0	0	0	14	5	4	4	46
Bait Containers																						4	5			
Total Weight	7	19	35	76	24	2	19	8	245	65	49	6	555	8	28	100	42	58	25	3	14	378	85	295	24	1060



Disabled landing craft delivering final load of Zaikof Bay MD to Whittier Harbor

### **Gore Point Region Cleanup**

GoAK's 7-man crew spent 33 days cleaning beaches in the Gore Point region from mid-June until mid-July. A volunteer accompanied the crew and donated 140 hours to the project. Storms and surf hindered this project from start to finish limiting ability to get on and off shore. Consequently, productivity dropped somewhat from previous years. The crew again cleaned 3 Gore Point monitoring beaches and then moved to the southwest end of the Kenai Peninsula to finish cleaning from Port Chatham to Chugach Bay, Perl Island, and Elizabeth Island including a near-tidal lake full of storm-driven MD.

The Gore Point monitoring sites were extremely fouled over the winter. Five tons of debris were removed from those sites, sites that have now been cleaned 4 times over consecutive years. Because of bad weather and building surf conditions, debris collected from the North Beach monitoring site had to be quickly loaded and transferred to the protected West Beach before it could be categorized and weighed.



Sorting Gore Point North Beach MD on protecting West Beach



GoAK crew struggling to remove monitoring MD from East Beach Gore Point



Sorting MD at an East Beach Gore Point monitoring site

After the Gore Point monitoring plots were cleaned the crew moved to Port Chatham, cleaning there and in adjacent Chrome Bay. They then cleaned from Port Chatham into Chugach Passage and on to Chugach Bay. After removing another 5 tons of MD from this area they began cleaning Elizabeth Island and Perl Island.

On the east side of Elizabeth Island there is a low gradual beach several hundred yards deep landward, behind which sits a freshwater lake of about ¼-mile length and width. The lake is not tidal but storms push surf over the beach berm into the lake. The beach between the lake and ocean faces prevailing winds and currents, so strong storms sweep MD and logs over the beach and into the lake. As a consequence, the lake was loaded with marine debris and contains a large driftwood floating logjam on the far side of the lake. The logjam was woven with numerous types of nets. Nets and other MD littered the bottom of the lake. The lake water itself was, and still is, full of uncountable plastic bits, including plastic pellets used for manufacturing plastic items. The water surface in places also had a heavy sheen on it from chemicals washed into the lake from containers of MD that had ruptured onshore above the lake or in the logjam. Storms are so ferocious in this area that debris is driven across the beach berm, across the lake, through the logjam, and then even as much as two hundred yards farther into the uplands beyond the lake. MD in the stream bottom above the lake is 800 yards from the ocean. Storms have tossed MD nearly ½-mile beyond the shoreline in this area.

The crew spent nearly two weeks cleaning the lake and the nearby area. They waded into the lake in chest waders to grapple nets and other debris from the lake bed. They packed an inflatable boat and outboard over the beach to the lake so they could use it to ferry collected debris to the lake side of the beach. The MD was then offloaded on the ocean side of the lake and carried or drug across the beach to the shore where it was again loaded into another inflatable to be carried to the landing craft because the shoreline here was too shallow to allow the landing craft to approach the beach. Without a doubt, this was the most physically demanding and difficult MD cleanup GoAK has ever attempted. However, 11 tons of plastic MD were successfully removed from the lake. Unfortunately, untold amounts of tiny plastic fragments and beads still litter the lake and sediment, and unknown chemicals still pollute its waters. As the large floating logjam in the lake moves back and forth in storms, more plastic debris will be released and also pulverized by the movements of the logs. Sadly, at least three species of salmon, and possibly four, spawn or rear in this lake or outlet stream.

After finishing Elizabeth Island Lake, the cleanup crew moved to the west side of Perl Island and cleaned an area along the beach where now-abandoned homesteads had dumped debris and derelict equipment for years. Over the years, storms have eroded this shoreline and scattered debris along the beach. The crew did not remove any of the abandoned heavy equipment but removed the loose garbage on the beach and at the dump site to prevent more of it from directly impacting the marine environment. Approximately 1 ton of debris was removed from this site. There are many tons of heavy metal equipment at this site that will eventually end up in the tidal zone if they are not first removed.



Plastic bits from Elizabeth Lake

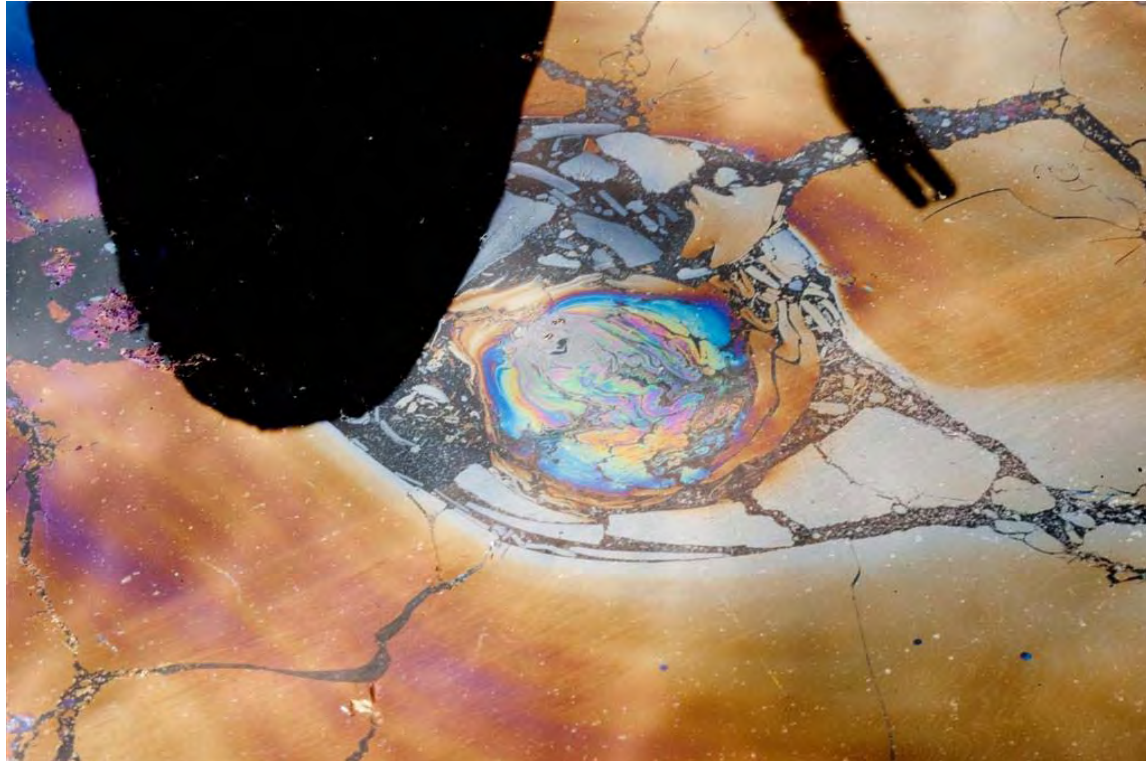


Plastic feedstock pellets from Elizabeth Lake



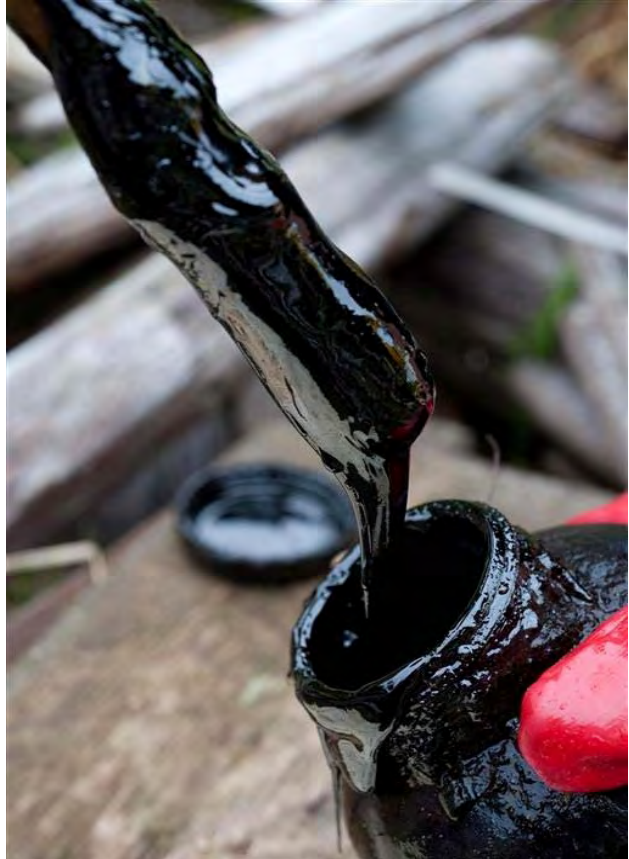


Unknown sheens color Elizabeth Lake





Nets in Elizabeth Lake log jam



Chemicals pollute Elizabeth Lake



Hauling HSDN from Elizabeth Lake



Removing Elizabeth Lake nets and other MD (above and below)





Pulling Elizabeth Lake nets across beach to ocean



One of many piles of MD from Elizabeth Lake



Perl Island Beach Dumpsite



Load of debris from Perl Island

## Conclusion

Over the course of the 2010 cleanup season, volunteers donated 4210 hours removing MD and working on monitoring plots. 74 vessel days were donated to the cleanup projects. As in past seasons, the Cities of Whittier, Seward, and Homer all donated parking, wharfage fees, launch fees, and slip fees to the project. Volunteers donated food, parking and tunnel fees. The Kenai Peninsula Borough donated landfill tipping fees.

28 miles of beaches in PWS were cleaned with 21.5 tons of debris removed. Beaches cleaned in PWS averaged approximately 25 yards in width. Another 27 miles of shoreline were cleaned in the Gore Point area with 22 tons of debris removed. Gore Point region beaches cleaned averaged about 50 yards in width, however, the area cleaned at Elizabeth Island Lake extended 800 yards from the tide line. The total miles of beaches cleaned in 2010 were the lowest in years but that is because of three reasons. First, significant funding cuts from past years limited the 2010 cleanup season. Secondly, the 2010 season's cleanup was focused on heavily fouled beaches that also had very difficult working conditions associated with them. They just took more effort to clean. Thirdly, bad surf and weather hampered the cleanup projects throughout much of the season.

**Gulf of Alaska Keeper Financial Statements 2007-2009:**  
**Gulf of Alaska Keeper**  
**Comparative Statements of Financial Position**  
As of December 31, 2009, 2008 and 2007

	<u>Dec 31, 09</u>	<u>Dec 31, 08</u>	<u>Dec 31, 07</u>
<b>ASSETS</b>			
Current Assets			
Checking/Savings	6,754	210	16,916
Prepaid Expenses	<u>3,425</u>	<u>3,411</u>	<u>1,662</u>
Total Current Assets	10,179	3,621	18,579
Fixed Assets			
Equipment	13,469	13,469	11,649
Accumulated depreciation	<u>(8,260)</u>	<u>(6,094)</u>	<u>(2,281)</u>
Total Fixed Assets	<u>5,209</u>	<u>7,375</u>	<u>9,368</u>
<b>TOTAL ASSETS</b>	<u><u>15,387</u></u>	<u><u>10,996</u></u>	<u><u>27,946</u></u>
<b>LIABILITIES &amp; EQUITY</b>			
Liabilities			
Liabilities			
Accounts Payable	613	1,930	613
Loans Payable	<u>3,150</u>	<u>-</u>	<u>-</u>
Total Liabilities	3,763	1,930	613
Net Assets	<u>11,624</u>	<u>9,066</u>	<u>27,333</u>
<b>TOTAL LIABILITIES &amp; NET ASSETS</b>	<u><u>15,387</u></u>	<u><u>10,996</u></u>	<u><u>27,946</u></u>

**Gulf of Alaska Keeper  
Statements of Revenues and Functional Expenses**

**Year Ended December 31, 2009**

	TOTAL	Program Services		
		PWS Debris Removal	Administrative	Fundraising
<b>REVENUE</b>				
Government Grants	260,063	260,063	-	-
<b>EXPENSE</b>				
Cleanup contracts	121,950	121,950	-	-
Boat leasing	102,000	102,000	-	-
Boat fuel	15,081	15,081	-	-
Insurance	5,044	4,540	504	-
Dump Fees	4,458	4,458	-	-
Depreciation	2,166	2,166	-	-
Uncategorized	1,940	1,940	-	-
Accounting	1,500	-	1,500	-
Communications	1,025	1,025	-	-
Other Expenses	2,873	2,142	623	108
<b>TOTAL EXPENSE</b>	<b>258,037</b>	<b>255,302</b>	<b>2,627</b>	<b>108</b>
<b>REVENUE LESS EXPENSES</b>	<b>2,026</b>	<b>4,761</b>	<b>(2,627)</b>	<b>(108)</b>

**Year Ended December 31, 2008**

	TOTAL	Program Services		
		PWS Debris Removal	Administrative	Fundraising
<b>REVENUE</b>				
Government Grants	130,000	130,000	-	-
Other Contributions	125,503	125,503	-	-
<b>TOTAL REVENUE</b>	<b>255,503</b>	<b>255,503</b>	<b>-</b>	<b>-</b>
<b>EXPENSE</b>				
Cleanup contracts	156,800	156,800	-	-
Boat leasing	68,500	68,500	-	-
Boat fuel	28,780	28,780	-	-
Dump Fees	5,387	5,387	-	-
Insurance	5,324	5,324	-	-
Depreciation Expense	3,813	3,813	-	-
Accounting	1,200	-	1,200	-
Other Expenses	4,123	3,463	653	7
<b>TOTAL EXPENSES</b>	<b>273,927</b>	<b>272,067</b>	<b>1,853</b>	<b>7</b>
<b>REVENUE LESS EXPENSES</b>	<b>(18,424)</b>	<b>(16,564)</b>	<b>(1,853)</b>	<b>(7)</b>

**Year Ended December 31, 2007**

	TOTAL	Program Services		
		PWS Debris Removal	Administrative	Fundraising
<b>REVENUE</b>				
Government Grants	115,000	115,000	-	-
Other Contributions	199,940	199,940	-	-
<b>TOTAL REVENUE</b>	<b>314,940</b>	<b>314,940</b>	<b>-</b>	<b>-</b>
<b>EXPENSE</b>				
Cleanup contracts	162,800	156,800	-	6,000
Boat leasing	68,500	68,500	-	-
Boat fuel	28,780	28,780	-	-
Dump Fees	5,387	5,387	-	-
Insurance	5,324	5,324	-	-
Depreciation Expense	3,813	3,813	-	-
Accounting	1,200	-	1,200	-
Other Expenses	19,795	3,219	5,876	10,700
<b>TOTAL EXPENSES</b>	<b>295,598</b>	<b>271,822</b>	<b>7,076</b>	<b>16,700</b>
<b>REVENUE LESS EXPENSES</b>	<b>19,342</b>	<b>43,118</b>	<b>(7,076)</b>	<b>(16,700)</b>



## **Addendum: Public Outreach Proposals**

At the request of the EVOSTC, GoAK amended this marine debris proposal by including additional projects to strengthen the public outreach component. GoAK solicited project proposals from five separate organizations with past experience in marine debris work and community outreach. The Center for Alaskan Coastal Studies, the Chugach National Forest and Alaska Geographic jointly submitted Proposal 1. The Marine Conservation Alliance Foundation submitted Proposals 2 and 3. The Alaska Sea Life Center submitted Proposal 4. Each of the proposed outreach projects are stand-alone programs. As such, the Council can select any combination of the projects to satisfy the public outreach objective. All projects selected by the Council will coordinate in such that components of each project do not overlap. Projects will also use the same educational data, such as miles cleaned, the amount of marine debris removed per mile up in the cleanup area, the types and quantities of marine debris, habitat and animals impacted, etc., in their individual projects so that a consistent message is delivered.

GoAK strongly supports all of the public outreach proposals. Each proposed outreach project has its own merits and reaches different segments of the public. Each public outreach project will be administered and conducted by its proposer and sub-contracted through GoAK. GoAK will collect annual reports from each sub-contractor and submit them with GoAK's annual report to the Council.

### **Proposal 1**

**Contractors: The Center for Alaskan Coastal Studies, Chugach Forest Service and Alaska Geographic.**

#### **Youth Action on Marine Debris: from the field to the classroom**

##### *PHASE I: Classroom & Community Outreach*

The Center for Alaskan Coastal Studies annually conducts the Kachemak Bay *CoastWalk* program, a successful community-based marine debris clean-up and prevention program begun by local volunteers in 1984. We continue to develop and improve this program as a means for providing a model community-based marine debris clean-up and prevention program for other Alaskan communities. The goals of *CoastWalk* are to:

- 1) increase and sustain annual volunteer and student clean-ups of local beaches and streams in Alaskan communities
- 2) raise awareness among Alaskans and those who use Alaskan waters about the magnitude and global nature of the marine debris issue and the importance of habitat restoration

- 3) gather data and detect long term trends in biodiversity and marine debris accumulation
- 4) target outreach and education efforts to address the prevention of marine debris clean-up efforts, and types and sources of marine debris.

A major component of our marine debris program is community outreach and classroom presentations and involvement. Over the past 10 years volunteer effort has expanded to include student involvement in clean-up efforts by multiple grade levels reflecting Kindergarten through College level students. For the past 5 years, the Center for Alaskan Coastal Studies has been able to expand the successful *CoastWalk* model to communities throughout coastal Alaska through pass through Challenge Grants funded by the NOAA Community Based Marine Debris Program. Our Challenge Grants have supported schools, community organizations, and tribes from all over the state, including organizations and schools in Kenai, Soldotna, Haines, Seward, Kodiak, Seldovia, the Anchorage-based Gulf of Alaska Keeper, Juneau, Sand Point and Cordova who identified high priority areas for cleanups, conducted cleanup and prevention activities, and standardized their reporting.

As a way to enhance the outreach and education of the GoAk marine debris removal project we propose to provide in-class resources and outreach in partnership with the Chugach National Forest *Youth Expeditions in Prince William Sound* Project (see *Phase II description*). In-class resources and outreach include the following:

1. **Enhancement of the CACS *CoastWatch* curriculum**, available for free as a PDF download on the CACS website (<http://www.akcoastalstudies.org/education-resources/59-downloadable-educator-resources.html>) by incorporating background information on current marine debris research and trends, and including more Alaska specific marine debris and coastal monitoring activities.
2. Development of an **educational tool kit** to be used by educators in Alaskan coastal communities to teach about marine debris issues and lead monitoring and clean-up activities. Tool kit dissemination would include conducting key workshops with education staff from partner organizations and would also include on-site trainings by CACS educational staff as needed.
3. Participation in the yearly ***Youth Expeditions in Prince William Sound*** run by the Chugach National Forest and Alaska Geographic to assist with the coastal monitoring component of the expedition which will be modeled after the CACS *CoastWalk* program for a few select beaches in Prince William Sound. Monitoring efforts will include a human impact survey, biodiversity checklist, marine mammal and bird observations.
4. Usage of debris items collected during the expedition program and by GoAK clean-up crews in **classroom presentations** and in the educational tool kit to

help increase awareness of the global nature of the marine debris issue and help students understand the relationship of ocean currents and the global marine debris issue.

5. Creation of a **student/community art display** reflecting the range of plastics that are found in the clean-up efforts. Classroom outreach in the first and second year will include the sorting of collected plastics to be used in the creation of a large walk-through plastic gyre display (see attached photo of a gyre prototype created by the *Washed Ashore* Project). This gyre display will be an artistic rendition of the great north pacific “garbage patch” and will include strands from each beach clean-up throughout the oil spill impacted areas. In this way, groups could compare debris from different cleanups and consider the differences and similarities of the debris and the reasons the GoAK debris was similar or different from what they collected. Each strand would be labeled with the location and the group that created it. When finished, the gyre will reflect debris found on different coast and highlight all the groups involved in its creation. The plastic gyre will be portable and will be accompanied by a display about its creation, information on GoAK cleanups, and facts about the global issues of marine debris. Students who participate in the youth expeditions will serve as ambassadors of this message during their in-class presentations using multi-media tools produced during their expedition. Creation of the student/community gyre art project will reinforce the message of turning the plastic pollution problem into a series of solutions, starting with the personal use of plastic in our lives and expanding to the global nature of plastics in motion. Creating an art project out of the collection of washed up plastic and trash is an attempt to bring awareness to people about how much non-biodegradable waste is floating around in our oceans.

## Methods

This program will begin with collaborative planning for a three year implementation beginning in 2012 and continuing through 2014. Beginning in the winter and spring of 2012 efforts will focus on reviewing the CACS *CoastWatch* curriculum, researching existing marine debris curricula and “Alaskan-izing” appropriate lessons and activities for integration into an expanded *CoastWatch* curriculum, development of pilot activities for the summer field course and fall in-class presentations, and participation in the Youth Expedition. During the fall of 2012 educators will make classroom visits to schools in the Kenai Peninsula School District, the Anchorage School District, the Chugach School District, Cordova School District, Valdez School District, and home school programs to pilot marine debris lessons and begin sorting plastics and marine debris collected by GoAK and the Youth Expedition. During winter and spring of 2013 collaboration with representative from the *Washed Ashore Project* will begin, the gyre project will be designed and the educational tool kit will be completed. Participation in

summer Youth Expeditions will continue in the summers of 2013 and 2014. In the fall of 2013 school and community workshops will be held to continue the sorting of marine debris collected by the GoAK efforts and begin the building of the walk-through gyre. Teacher/educator training workshops for using the *CoastWatch* curriculum and tool kit will be conducted. During the winter and spring of 2014 the walk-through gyre will be completed and interpretive material will be developed in collaboration with partners and student ambassadors. During the remainder of 2014 and into 2015 the walk-through gyre will travel to schools and/or participating visitor centers and classroom outreach incorporating final GoAK efforts and outcomes will be conducted.

### **Management Team**

Phase I of the project will primarily be run by the Center for Alaskan Coastal Studies in close partnership with the Chugach National Forest and their partners as identified in Phase II and the *Washed Ashore* Project team. Programs leaders from each organization include:

#### *Center for Alaskan Coastal Studies*

Elizabeth Trowbridge, Program Director, oversight of education and outreach components of program, development of curriculum materials and tool kit, coordination of contractual artist workshops, collaboration with partners.

Patrick Chandler, Special Program Coordinator/Educator, lead instructor for classroom outreach and community presentations, assistance with curriculum development and tool kit, CoastWalk coordinator.

Melanie Dufour, Outreach Coordinator, media outreach, classroom coordination, community involvement specialist

#### *Chugach Children's Forest:*

Aaron Poe, US Forest Service, Partnership Coordinator (and past wildlife biologist and lead in the Prince William Sound Framework), content development, coordination with guest presenters, and facilitation of involvement of USFS staff and resources.

Kate Alexander, Alaska Geographic, content development, program evaluation, instruction and coordination with guest presenters

#### *Artula Institute for the Arts and Environmental Education*

Angela Haseltine Pozzi, Executive Director Washed Ashore Project, contractor for walk-through gyre student and community art project/display.

#### *Additional Partners:*

Local school districts assisting with student recruitment and integration of this program into larger classroom curriculum—Chugach School District, Anchorage School District, Cordova School District, Valdez School District, Kenai Peninsula Borough School District and home school programs.

Local subject matter experts, including residents and scientists involved in marine debris clean-up and monitoring, wildlife and fisheries research and monitoring, commercial fishing industry, subsistence and local ecological knowledge.

### **Institutional Capability**

CACS is a community-based 501-c-3 non-profit organization based in Homer, Alaska, whose mission is to foster responsible interactions with natural surroundings through science-based environmental education and stewardship programs. The organization has provided award-winning environmental education programs since 1982, serving more than 11,000 people in 2010. In addition to a Homer Headquarters facility, CACS owns and manages two other educational facilities: (1) the Peterson Bay Field Station, a residential facility and four shoreline acres on the south side of Kachemak Bay as a base for guided school field trips and natural history tours on rocky intertidal and salt marsh habitats that are among the most diverse and productive in the Kachemak Bay State Critical Habitat Area and KBRR; and (2) the Carl E. Wynn Nature Center, 140 acres of boreal forest habitats, a trail system, and two cabins on the bluff above Homer that hosts over 4,000 visitors for daily guided and self-guided hikes on trails for all ages and weekly educational programs for specific age groups. CACS has provided regional leadership in community-based coastal monitoring and responsible ecotourism since 1984.

CACS has an excellent record of accomplishment and great potential for preventing the accumulation of marine debris. CACS' marine debris program has had four components: 1) the Kachemak Bay CoastWalk; 2) Challenge Grants to organizations that sponsor cleanups or outreach (offered for the past 5 years but not funded for 2012, future funding is pending); 3) Outreach and education aimed at prevention of marine debris accumulation; and 4) Leadership in the field of Alaska marine debris removal and prevention.

CACS has sponsored Kachemak Bay CoastWalks since 1984. Citizen volunteers adopt a section of the Kachemak Bay shoreline and walk it annually, surveying changes, collecting data on marine life and human impacts, and cleaning up beach litter and marine debris.

CACS programs have long been a destination for hands-on environmental science field trips which feature gaining observation and data collection skills as educational outcomes. We have expanded the role of environmental monitoring in our educational

programs as a key strategy for meeting our organizational mission and goals and to align our programs with state and national education standards designed to improve the quality of science, math, and technology education. Our programs are designed to model the inquiry process by providing training in the use of scientifically-valid data collection protocols and the development of databases that can share data with researchers and other users.

The model Kachemak Bay program has the following elements:

1. Organization and support of an annual community event focused on coastal monitoring, beach cleanups, and K-12 and community education about the importance of coastal habitats and resources in relation to human impacts;
2. User-friendly checklists and data collection protocols that include the International Coastal Cleanup methods for documenting the type and amount of marine debris observed and/or removed;
3. Database documenting volunteer hours, type of debris encountered, and total amount and type of debris removed from specific areas;
4. Shoreline segments geo-referenced and database integrated into a GIS; and
5. Long-term partnerships and volunteer monitors.

Outreach presentations on marine debris clean-ups and prevention have been conducted in classrooms throughout the Kenai Peninsula. Expanding our educational outreach approach to include current topics in marine debris prevention and incorporating role models and real clean-up events into our presentations has been very effective. In 2009 we incorporated the results of a GoAK Gore Point Clean up as well as highlighted individuals in the community working to prevent the use of plastics. Items collected by CACS during this clean-up are our most effective teaching tool in our classroom presentations.

Adding a marine debris art contest and a buoy art contest using buoys collected by GoAK on the outer coast of Prince William Sound added enthusiasm to the collection of marine debris and resulted in greater participation by school groups and community members in the 2009 & 2010 *CoastWalks*. Adding a community art event helps highlight the stewardship message and created community ownership in the marine debris prevention message and clean-up efforts.

The Artula Institute for Arts and Environmental Education sponsors the Washed Ashore Project, a traveling exhibit based out of Oregon. Called "Washed Ashore," the exhibit's goal is to raise awareness of our ocean's growing pollution from plastic. Sculptures include a giant jellyfish made entirely of found water bottles, a 15-foot humpback whale backbone and rib-cage, a coral reef made from Styrofoam, an oil spill replica, and a

walk-through plastic gyre - an enormous mobile which mimics the five worldwide gyres where plastic collects in the world's oceans.

### **Classroom and Community Outreach Annual Budget for Phase I**

Funding is requested to assist with staff costs for curriculum enhancement, education tool kit development and classroom/community outreach programs for a total of \$25,500 per year. Other substantial requested support includes contract consultation and instructor travel support for the gyre project workshops totaling \$10,000. And an additional \$3,000 is requested for printing of the enhanced *CoastWatch* Curriculum and development of 3 Marine Debris Education Tools Kits to be housed in Prince William Sound, the Kenai Peninsula and a third location to be determined at a later date (possibly Kodiak or Anchorage). Travel for education staff to participate in the Youth Expeditions each summer will total \$2,500. The Center for Alaskan Coastal Studies will provide annual matching funds in the amount of \$6,820 per year for in-kind staff salaries plus \$ 2,990 for office support (supplies, internet, phone, educational materials, etc.) for outreach and education efforts. Approximately 400 volunteers will conduct CoastWalks to document and remove marine debris in oil spill impacted areas and contribute to the collection of plastic debris for the walk-through Gyre project. We estimate that these volunteers will contribute 1,000 hours at a value of approximately \$19/hr. The total for this will be \$19,000 per year. CACS will also provide \$500 towards travel and \$1,000 for the Marine Debris Tool Kit. Assuming a three year project life our total funds request for Phase I is \$ 92,000 with a total match from the Center for Alaskan Coastal Studies of at least \$87.930.

Expense	EVOS Request	Center for Alaskan Coastal Studies In-Kind Contribution	Extended EVOS Cost for 3 year Project	Extended CACS In-Kind Contribution
CACS Staff Support	25,500/yr	6,820/yr	76,500	20,460
Supplies	0	2,990/yr	0	8,970
Contractual	10,000	0	10,000	0
Travel	2,500	500	2,500	500
Equipment (Tool Kit)	3,000	1,000	3,000	1,000
Volunteer Labor	0	19,000/yr	0	57,000
<b>Total Expense</b>			<b>92,000</b>	<b>87,930</b>

*PHASE II: Youth Expeditions in Prince William Sound with the Chugach Children's Forest*

Since 2008, The Chugach National Forest and Alaska Geographic have worked together to develop innovative outdoor education programs through the Chugach Children's Forest ([www.chugachchildrensforest.org](http://www.chugachchildrensforest.org)). This award-winning collaboration includes nonprofits, agencies, schools, and private businesses and has specialized in creating opportunities for young people to not just learn about important environmental issues but also tackle them head-on. From inception, a cornerstone of the Chugach Children's Forest (CCF) has been youth science expeditions and since 2009 we have fielded three boat-based expeditions taking young people (ages 13-18) from around Southcentral Alaska into Prince William Sound. Expedition content has focused on issues affecting the interface between terrestrial and marine systems as delivered by professional educators, scientists, resource managers and citizen advisory groups. In all cases having the youth engage in outreach by telling their stories through individual and collaborative media projects as well as community presentations following the trip has been a key component.

We propose to leverage the strengths of our existing PWS youth science expedition program and combine it with a service-learning project aimed at promoting understanding of the problem of marine debris in coastal Alaska. Youth in this program would participate in debris clean-up efforts alongside of GoAK and monitor sites that have been previously cleaned using established protocols. They will also develop media products that generate awareness about the problem of marine debris and commit to being a student-ambassador for the larger GoAK project in their schools and communities by supporting those classroom presentations organized in Phase I. Media projects developed by these student ambassadors will be specifically integrated into the Gyre project and will serve as stand-alone products for dissemination through social media and other outlets as well as support classroom and community presentations.

### **Goals and Objectives**

The goals and objectives of this youth expedition series have a direct link to the mission of the GoAK in this proposal as well as the EVOS Trustees more broadly including:

- Increase public awareness of conservation and stewardship in Prince William Sound, including understanding, preventing, and mitigating human-caused environmental impacts in Southcoastal Alaska;
- Recruit youth participants from a broad base of representative communities and interests in the Southcentral Alaska who are willing ambassadors for the project that can share stories from their personal experiences with marine debris abatement and monitoring with a wider audience;
- Promote civic participation in environmental protection, stewardship and resource management throughout Southcentral Alaska.
- Foster strong understanding about ecological and socioeconomic systems within Prince William Sound and Southcoastal Alaska and how stressors like marine debris interact with those systems;



- Foster partnerships among strategic entities in Prince William Sound, including school districts, federal and local government, conservation and education organizations, local industry, and local citizens;

This project addresses the above goals and objectives by implementing a week-long intensive course for teens with immersion in the places and issues of Prince William Sound. Educational objectives will be achieved through hands-on activities, site visits, and integration of guest presenters with expertise in critical conservation and citizen involvement. Annually, we will generate 4-6 individual high quality stories in multiple media formats that can be broadly disseminated through the cooperators' networks of statewide partners. Additionally, participants will commit to at least one classroom presentation meaning more than 30 individual presentations made by youth-to-youth in Southcentral communities, to help foster a dialogue around the issue through life of the GoAK project.

### **Methods**

This program will begin with collaborative planning for a three year implementation beginning in 2012 and continuing through 2014. Building on three successful years of similar programs, the schedule, content and guest presenters will be finalized by spring 2012. Student recruitment will focus on existing relationships with school districts and teachers in communities of Cordova, Valdez, Tatitlek, Chenega Bay, Whittier, Anchorage, Kenai, Soldotna, Homer and outlying villages in Kachemak Bay. Beginning in the spring and summer of 2012 efforts will focus on preparing students, including background on the cultural and environmental history of Prince William Sound. The field course will run for 8 days in June, July or August, with subsequent follow up with students and compilation and distribution of media products and educational presentations during the school year. The route and specific program stops will be coordinated annually to provide support to GoAK's cleanup and monitoring efforts in the Sound. Lectures and activities associated with marine debris will be complimented by related expert content on the human and natural systems of the region.

### **Management Team**

Phase II of the project will primarily be run by Alaska Geographic and the US Forest Service, in collaboration with the Center for Alaskan Coastal Studies (particularly with the integration of Phase I) and several local PWS community organizations. Programs leaders from each organization include:

#### *Chugach Children's Forest:*

Aaron Poe, US Forest Service, Partnership Coordinator (and past wildlife biologist and lead in the Prince William Sound Framework), content development, coordination with guest presenters, and facilitation of involvement of USFS staff and resources.

Ann Mayo Kiely, Alaska Geographic, Program Director, oversight of program, including integration of broader program goals, collaboration with strategic partners, and program funding.

Sarah Warnock, Alaska Geographic, Education Program Manager, coordination of student recruitment and logistical planning

Kate Alexander, Alaska Geographic, content development, program evaluation, instruction and coordination with guest presenters

#### *Center for Alaskan Coastal Studies*

Patrick Chandler, Special Program Coordinator/Educator, instructor for coastal monitoring efforts, oversight of integration of expedition content into curriculum materials, tool kit and gyre project

#### *Additional Partners:*

PWSRCAC, assistance with program support and content as well as guest speakers

Local school districts assisting with student recruitment and integration of this program into larger classroom curriculum—Chugach School District, Anchorage School District, Cordova School District, Valdez School District, Kenai Peninsula Borough School District and home school programs.

Local subject matter experts, including residents and scientists involved in marine debris clean-up and monitoring, wildlife and fisheries research and monitoring, commercial fishing industry, subsistence and local ecological knowledge.

REI, donations of outdoor gear to support the program

### **Institutional Capability**

The Chugach Children’s Forest draws upon the strengths of two institutions with a legacy in environmental outreach and education. Alaska Geographic is the official, educational, non-profit partner to all of Alaska’s forests, parks and refuges. With a professional staff specializing in informal education, media development and communications, and book publishing, Alaska Geographic successfully fills two distinct needs and straddles two educational worlds: one as a media publisher and the other as a provider of experiential education programs in Alaska’s public lands. In addition to the expertise of the staff in the education, youth mentorship and communications, Alaska Geographic is backed by an involved Board of Directors which wholly supports educational programs in partnership with public lands, and in particular, programs that reach the youth of Alaska.

The Chugach National Forest aims to engage Alaskans in experiential education, resource stewardship and citizen science to foster participation and leadership in coastal forest conservation, as well as improve civic understanding of environmental issues affecting the critical interface between terrestrial and marine environments. Prince William Sound is an area that exemplifies this marine interface. The Forest Service manages the majority of uplands in the Sound, and acts as one of the Federal Trustees leading Exxon Valdez Oil Spill recovery efforts. We have made significant

efforts in stewardship of the region’s resources including marine debris abatement. Recently, also working with Alaska Geographic, we have made substantial investments in resource stewardship communication and outreach specifically engaging coastal community stakeholders through our Sound Stories project (draft site available at: [www.exploresound.org](http://www.exploresound.org)). This project offers a dynamic, interactive, multimedia platform from which stories from program participants can be disseminated to a wide audience. The Chugach boasts staff with a wide array of talent from education, public outreach and interpretative specialists, to a variety of scientists and skilled logistics experts which ensure successful and safe program implementation.

**Youth Expedition Annual Budget for Phase II**

Funding is requested to assist with the cost of a charter boat to run the program which would be split equally by Chugach Children’s Forest (CCF) for an 8-day trip. This cost includes participant and instructor quarters, food and skiff support for participants. Other substantial requested support includes staff time to support program integration, contract instructor support for guest presenters (e.g, media specialists) and travel support for participants for a total of \$15,800 annually. The CCF would provide the bulk of staff time for program planning, student recruitment and implementation, as well as logistical support. We would draw on our own staff as well as a number of our regional partners to provide in-kind support for guest speakers/instructors and student recruitment. Our annual institutional commitment would total \$28,500 for Phase II of this project (see Table 1 for details). Assuming a three year project life our total **funds request for Phase II is \$47,400** with a total match from the CCF of at least \$85,695.

Table 1. Annual Estimated Cost Breakdown for Phase II

<b>Expense</b>	<b>EVOS Request</b>	<b>Chugach Children’ Forest contributed</b>
CCF Staff Support	\$4,000 /yr	\$8,000/yr
Travel--Boat Charter, including food	\$8,800/yr	\$8,800/yr
Participant transportation	\$1,500/yr	\$1,500/yr
Contract Instructors	\$1,500/yr	\$1,500/yr
Guest presenters/instructors		\$2,000/yr
Small boat, facility and van support		\$2,000/yr
Field gear		\$2,000/yr
Grant Management (%17.5) CESU Standard		\$2,765 /yr
Annual Total	<b>\$15,800/yr</b>	\$28,565/yr
Contributed %	36%	64%
<b>GRAND TOTAL</b>		<b>\$44,365/yr</b>

## Proposal 2

### EVOSTC Marine Debris Cleanup Documentation Film

**Contractor:** Marine Conservation Alliance Foundation

**Organization Contact:** Merrick Burden

**Grant Contact:** Diane Scoboria, (907) 523-0731, [dianemca@ak.net](mailto:dianemca@ak.net)

2 Marine Way, Suite 227

Juneau, AK 99801

**Purpose:** Partner with 360 North to produce and broadcast a documentary film and associated Public Service Announcements on the Gulf of Alaska Keeper cleanup. Airing statewide, this film will raise awareness of the effects marine debris has on our shores, what is being done to clean it up and how to prevent its reoccurrence.

**Audience:** General public of the state of Alaska. This film will play regularly on 360 North, a station which reaches one-third of Alaskans, almost a **quarter of a million people**. The proposal includes \$5,808 of in-kind dollars for 12 scheduled broadcast plus 50 Public Service Announcements (half of which are in kind).

**Total Cost:** \$28,059 (*Includes 10% Administration fee*)

**In Kind:** \$5,808

#### **Description:**

The Marine Conservation Alliance Foundation (MCAF) proposes to produce a short (3 to 5 minute) documentary film in conjunction with Gulf of Alaska Keeper (GoAK) and Exxon Valdez Oil Spill Trustees about ongoing marine debris cleanup work in Prince William Sound. Statewide broadcasting of this film will provide Alaskans with a greater understanding of the marine debris threat.

The film will focus on the types and density of marine debris collected, its effect on fish, wildlife, transportation, recreation, water quality, with particular emphasis placed on preventable debris. The film will include footage of crews cleaning beaches, stills of debris items, interviews with the GoAK director, beach crew leader and crew members, an EVOS Trustee, and the Executive Director of MCAF. Several clean-up locations will be included through the use of still photos, with additional film footage of one featured site. Costs include travel and stipend for a film crew at the clean-up site, planning, editing and production of final footage as well as in-state coverage.

The film will be shown on Alaska's 360 North channel twelve times as featured programming as well additional unscheduled broadcasts. The short (30 second) Public Service Announcements will air 50 times. This film and associated Public Service Announcements will showcase the work of Gulf of Alaska Keeper and the Exxon Valdez Oil Spill Trustee Council as a shining example of stewardship of our precious shores.

## Proposal 3

### EVOSTC Outreach Marine Debris Prevention Tide Book Project

**Contractor:** Marine Conservation Alliance Foundation

**Organization Contact:** Merrick Burden

**Grant Contact:** Diane Scoboria, (907) 523-0731, [dianemca@ak.net](mailto:dianemca@ak.net)

2 Marine Way, Suite 227

Juneau, AK 99801

**Purpose:** Change the behavior of sport and commercial fishermen and recreational boaters through a one page educational insert in all Tide Books for South Central Alaska (circulation 292,000/year). To focus additional attention on the problem in Prince William Sound, 20,000 Tide Books with customized marine debris messages on the front and back covers will be printed and distributed 2013-2014.

**Audience:** Nearly 300,000 sport and commercial fishermen and recreational boaters in South Central Alaska including Anchorage, Valdez, Cordova, Kodiak, Kenai River, Deep Creek, Seward, and Seldovia.

**Total Cost: \$23,936**

\$6,600 Single page insert in all South Central Tide Books 2013-2014

\$15,312 Custom Edition Tide Book Covers 20,000 copies (10,000/year)

\$1,584 Design

\$440 Shipping

*All costs include a 10% Administration Fee*

**In Kind:** \$116

**Partners:** Marine Conservation Alliance Foundation, Gulf of Alaska Keeper, Alaska Tide Book Company.

**Description:**

Much of the marine debris collected from Alaska shores is foreign debris carried here by currents, but an alarming trend has been noted in Prince William Sound of increased boating related debris. A public awareness campaign specifically targeting sport and commercial fishermen and recreational boaters is needed to stem the tide of this problem.

The Marine Conservation Alliance Foundation (MCAF) proposes a single page insert in all South Central Alaska Tide Books in 2013-2014 (circulation 292,000/year), ten thousand books a year will receive custom edition inside and outside front and back covers to be distributed in the Prince William Sound communities. It will memorialize the marine debris cleanup work in Prince William Sound by Gulf of Alaska Keeper as funded by the Exxon Valdez Oil Spill Trustee Council. The theme is that 'we are all part of the problem and to prevent a recurrence, we must all do our part!'

The following is a *possible* page insert:

### **Marine Debris in Alaska**

Marine debris is prevalent all over the Alaskan coast. There are many sources; shipping, commercial fishing, sport fishing, recreational boating, and land based activities. Marine debris is not only an eyesore, but is a hazard to navigation, has adverse economic impacts on shipping and fishing, kills wildlife and poses a threat to human health. Many groups have worked to remove marine debris from the beaches of Alaska and in particular, Prince William Sound. The Exxon Valdez Oil Spill Trustee Council recently spent over \$1,000,000 supporting marine debris cleanup projects.

Follow these simple guidelines to help us keep our shores free of debris:

- Think about the materials and packaging you take on your boat or to the beach.
- Choose reusable items and use fewer disposable ones.
- Avoid using plastic shopping bags.
- Dispose of unneeded packaging before leaving the harbor or getting on the beach.
- Pack out what you take in.
- Save and haul out all monofilament fishing line, including what is clipped off.
- Pick up any debris you find and dispose of properly.
- Loose the loop: cut packing bands so they won't entangle marine mammals.
- Properly stow or lash down all gear to prevent loss overboard.
- Incorporate these principles into your daily life.

**Exxon Valdez Oil Spill Trustees Council ([evostc.state.ak.us](http://evostc.state.ak.us))**

**Gulf of Alaska Keeper ([GoAK.org](http://GoAK.org))**

**Marine Conservation Alliance Foundation ([MCAFoundation.org](http://MCAFoundation.org))**

## Proposal 4

### **Project Title: Marine Debris Exhibit at the Alaska SeaLife Center**

Applicant Name: Seward Association for the Advancement of Marine Science,  
dba Alaska SeaLife Center

Project Duration: 3 years

Funding Request: \$152,341

Principal Investigator: Howard Ferren, Director of Conservation

Phone: 907-224-6396

Fax: 907-224-6360

Email: [howardf@alaskasealife.org](mailto:howardf@alaskasealife.org)

## **Marine Debris Exhibit Proposal**

### **Background**

The Alaska SeaLife Center (ASLC) mission is to generate and share scientific knowledge to promote understanding and stewardship of Alaska's marine ecosystems. Founded by concerned citizens in the *Exxon Valdez* Oil Spill (EVOS) impacted area and substantially funded through the *Exxon Valdez* Oil Spill Trustee Council, ASLC ([www.alaskasealife.org](http://www.alaskasealife.org)) focused initial research and outreach activities toward oil impacted resources. Now, ASLC research programs stretch from coastal and marine regions of Alaska to eastern Russia while continuing to engage in EVOS TC supported investigations. In addition, ASLC education programs reach a broad range of age groups and cultures through nocturnes, Elderhostel classes, school programs and distance delivery. In 2010 ASLC hosted almost 130,000 visitors, 1,533 nocturnes and 1,035 day program attendees. Education classes at the ASLC delivered long-distance through mobile video conferencing technologies allow broadcasts from any location in the facility to classrooms throughout the world to provide students televised experiences from laboratory settings or exhibits. In 2010 the ASLC provided distance learning to 8,274 students and teachers in the US, Canada and other regions of the world.

The Alaska marine ecosystem is under threat from various forces such as climate change, ice loss in the Arctic and coastal erosion. Other factors also take a toll on marine species, and impact our coastal environments and economies dependant on healthy marine ecosystems. One factor impacting marine ecosystems is debris: man-made waste and discarded materials or items lost at sea. Marine debris remains in the EVOS impacted region, and new debris continues to arrive on beaches impacted by the 1989 spill, continuing to damage the environment that has yet to fully recover. As defined by the Trustee Council, "marine debris is any persistent solid material that is

manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment located within the area of focus.”

Many organizations are taking action to address this problem globally, and in the oil-impacted region organizations and community volunteers are engaged in annual marine debris clean-up activities. Engaging citizens in beach clean-up projects provides a “hands-on” learning experience that can result in changed behaviors about how we treat and dispose of waste, behaviors that may have contributed to much of the debris present. However, the participants in clean-up activities are typically few in any single area. The ASLC can offer a significant education and outreach opportunity about marine debris to help inform even a larger audience in the spill impacted area about EVOS TC funded marine debris clean-up activities and the importance of reducing marine debris.

### **Project Description**

ASLC proposes to work in collaboration with organizations funded by the EVOS TC to clean up marine debris in the spill impacted region. Our role will be to provide essential outreach and education enhancing the efforts of organizations that clean up debris. We propose to design and install a marine debris exhibit at the ASLC facility in Seward, Alaska and to create a complementary K-9 curriculum about the subject. We anticipate the exhibit will reach almost 150,000 ASLC visitors annually, while additional exposure will reach students of all ages on-site and through distance education programs. We recognize the very important audiences in coastal Alaska community schools in the spill region where students, teachers and parents can be introduced to the current understanding about marine debris, its impacts, how to prevent debris from entering marine waters, and how to clean up debris when it is found.

We propose to design, fabricate and install a marine debris exhibit at the ASLC. The exhibit will consist of several integrated components, including marine debris collected on beaches within the spill impacted region. Debris will surround a flat screen display and kiosk centerpiece that will be interactive, provide visual content about marine debris, examples of marine debris and describe clean-up activities that support restoration within the spill region. The exhibit will be used for instructional purposes and become part of our Distance Education Program by using the exhibit and its content as backdrop and props, complete with curriculum, for our mobile broadcast system and staff to conduct distance education to spill region communities and beyond.

### **Goal**

Our goal is to inform the public about the scope of the marine debris problem, identify organizations and efforts working hard to clean up our beaches within the region



impacted by the 1989 spill, and to influence individual behaviors about protecting the marine environment.

## **Objectives**

1. Marine debris exhibit workshop report. Host exhibit design workshop with EVOS TC program manager and key staff (3) from organization(s) funded for clean-up actions. We will do this to identify and prioritize exhibit content; discussion to include scope of marine debris problem in the oil impacted area, efforts to clean up marine debris and how this helps restore the impacted region, and sources of debris and prevention methods.
2. Exhibit design. Design structural elements of the exhibit including kiosk, digital displays, debris elements and location within the visitor path to optimize education and outreach opportunities.
3. Outreach materials defined. Exhibit design to include opportunity for annual updates on marine debris clean-up efforts and accomplishments, and ways for people to engage in clean-up activities. This will also be described in rack cards or brochures made available to the public.
4. Completed beta version educational curriculum. Design and develop a K-9 curriculum about marine debris that uses the proposed exhibit as a curriculum prop.
5. Exhibit commissioned. Complete fabrication, installation and commissioning prior to the 2012 visitor season.
6. Validated curriculum. Test the curriculum for meeting academic standards and outcomes; revise as necessary; make curriculum available for distance delivery to communities in the impacted region and beyond.
7. Curriculum workshop. A curriculum workshop will be held in year 2 to train teachers in use of the curriculum.
8. Informed annual visitors. Verify on-site visitor and student exposure to the marine debris exhibit and conduct surveys about their learning experience and outcomes.

## Milestones

Milestones (by quarter)	Year 1 – FY12				Year 2 – FY13				Year 3 – FY14			
	1	2	3	4	5	6	7	8	9	1 0	1 1	1 2
Prioritized content for core exhibit media and messages	X											
Design for exhibit completed		X										
Kiosk fabrication completed			X									
Visual media completed					X							
K-9 curriculum beta test version completed				X								
Marine debris materials gathered from cleanup activities				X								
Assemblage of exhibit components				X								
Digital media tested					X							
Outreach rack cards completed					X							
Kiosk commissioned and public opening					X							
Curriculum/teacher training workshop					X							
Curriculum offered to schools						X	X	X	X	X	X	X
Annual update of debris clean up action								X				X
Close out grant												X

## Budget Narrative

### Personnel & Fringe

All personnel costs reflect the total time commitment over the three-year (12 quarter) project period aligned with the three-year Gulf of Alaska Keeper debris clean-up project schedule. The ASLC Director of Conservation will be project lead and Principal Investigator (PI). The ASLC Education Manager, Exhibits Manager and Exhibit Technician will manage project implementation, scheduling, contracting, fabrication and commissioning. The two Education Specialists will be responsible for developing curriculum and providing content for the exhibit. See detailed budget for a breakdown of time each person will contribute in each project year.

### Fringe

ASLC fringe benefits are charged at actual expenses and estimated at 28% of salary.

### Travel

An exhibit design workshop will be held at the Alaska SeaLife Center in Year 1. The one-day workshop will include the EVOSTC Marine Debris Grant Project Manager, ALSC staff and two representatives from the organization funded to clean up debris in the spill impacted region and a representative from the Marine Conservation Alliance Foundation (MCAF).

Year 1: Exhibit design workshop in Seward x1 person from MCAF

Airfare RT Juneau-Anchorage	\$ 360
Mileage RT Anchorage-Seward	\$ 140
Lodging - Seward @172/night x 1 night	\$ 172
Per diem - Seward @ \$85/day x 2 days	\$ 170
Meetings in Anchorage x1 person (PI Ferren)	
Mileage RT Seward-Anchorage	\$ 140
Per diem - Anchorage x1 day	<u>\$ 83</u>
<b>Total Year 1 travel:</b>	<b>\$1,065</b>

Funding is requested for a Cordova-based teacher to participate in the Year 2 curriculum training workshop:

Year 2: Curriculum training workshop in Seward x1 person	
Airfare RT Cordova-Anchorage	\$ 350
Mileage RT Anchorage-Seward	\$ 140
Lodging - Seward @172/night x 1 night	\$ 172
Per diem - Seward @ \$85/day x 2 days	\$ 170
Meetings in Anchorage x1 person (PI Ferren)	
Mileage RT Seward-Anchorage	\$ 140
Per diem - Anchorage	<u>\$ 83</u>
<b>Total Year 2 travel:</b>	<b>\$1,055</b>

Year 3: Meetings in Anchorage x1 person (PI Ferren)	
Mileage RT Seward-Anchorage	\$ 140
Per diem (meals only) - Anchorage	<u>\$ 85</u>
<b>Total Year 3 travel:</b>	<b>\$ 225</b>

### Equipment

The kiosk is an assemblage of many components and budgeted as an equipment expense (\$20,000 Year 1; \$5,000 Year 2 = \$25,000 total). It will include the physical structure, flat-screen TV for projecting media and messages, and electronic control systems.

### Supplies

Rack cards/brochures will be printed in Year 2 to inform public about sources of marine debris and tips for preventing it (\$1,500). These brochures will be made available at the exhibit kiosk. Additional program supplies have also been budgeted in Year 2 (\$500) and include materials and props supporting the curriculum and visitor surveys.

### Contractual

An audio/video expert will be contracted to film, compile and edit educational content for the kiosk and prepare it for public exhibition (\$15,000 Year 1; \$5,000 Year 2 = \$20,000 total).

### Indirect Costs

The Alaska SeaLife Center's 2011 indirect rate is 32.95% of MTDC (modified total direct costs; submitted to the Department of Commerce in May 2011). Equipment and portions of sub-awards greater than \$25,000 are excluded from MTDC.

A detailed budget worksheet is included on the following page.

**Project: Marine Debris Exhibit at the Alaska SeaLife Center**

**PI: Howard Ferren**

**Dates: 10/1/2011 - 9/30/2014**

		94,695				51,441				6,205		152,341	
		YEAR 1				YEAR 2				YEAR 3		TOTAL	
		Budget	MTDC			Budget	MTDC			Budget	MTDC	Budget	MTDC
a. Personnel	Sal/yr % FTE			Sal/yr % FTE				Sal/yr % FTE					
Howard Ferren, Principal Investigator	72,000 10%	7,200	7,200	75,600 5%	7,560	7,560	79,380 2%	1,527	1,527	16,287	16,287		
Laurie Morrow, Education Manager	43,680 10%	4,368	4,368	45,864 10%	4,586	4,586	48,157 2%	926	926	9,881	9,881		
Ricky Deel, Exhibit Manager	48,000 10%	4,800	4,800	50,400 5%	5,040	5,040	52,920 2%	1,018	1,018	10,858	10,858		
Darin Trobaugh, Education Specialist	33,150 15%	4,973	4,973	34,808 10%	3,481	3,481	36,548 0%	0	0	8,453	8,453		
Casey Schulke, Education Specialist	32,240 10%	3,224	3,224	33,852 0%	0	0	35,545 0%	0	0	3,224	3,224		
Exhibit Technician (TBD)	32,240 20%	6,448	6,448	33,852 0%	0	0	35,545 0%	0	0	6,448	6,448		
<b>Total Personnel</b>		<b>31,013</b>	<b>31,013</b>		<b>20,667</b>	<b>20,667</b>		<b>3,470</b>	<b>3,470</b>	<b>55,150</b>	<b>55,150</b>		
<b>b. Fringe Benefits (@ 28%)</b>	<b>Rate</b>			<b>Rate</b>			<b>Rate</b>						
Howard Ferren, Principal Investigator	28%	2,016	2,016	28%	2,117	2,117	28%	427	427	4,560	4,560		
Laurie Morrow, Education Manager	28%	1,223	1,223	28%	1,284	1,284	28%	259	259	2,767	2,767		
Ricky Deel, Exhibit Manager	28%	1,344	1,344	28%	1,411	1,411	28%	285	285	3,040	3,040		
Darin Trobaugh, Education Specialist	28%	1,392	1,392	28%	975	975	28%	0	0	2,367	2,367		
Casey Schulke, Education Specialist	28%	903	903	28%	0	0	28%	0	0	903	903		
Exhibit Technician (TBD)	28%	1,805	1,805	28%	0	0	28%	0	0	1,805	1,805		
<b>Total Fringe Benefits</b>		<b>8,684</b>	<b>8,684</b>		<b>5,787</b>	<b>5,787</b>		<b>972</b>	<b>972</b>	<b>15,442</b>	<b>15,442</b>		
<b>c. Travel and Per Diem</b>													
<b>Airfare</b>	<b>Rate Qty</b>			<b>Rate Qty</b>			<b>Rate Qty</b>						
Juneau-Anchorage (workshop)	360 1	360	360			0 0				360	360		
Cordova-Anchorage (workshop)		0	0	350 1	350	350			0	350	350		
<b>Per Diem</b>													
Seward, AK (workshop)	257 2	514	514	257 2	514	514			0	0	1,028	1,028	
Anchorage, AK (EVOS meetings)	83 1	83	83	83 1	83	83	85 1	85	85	251	251		
<b>Mileage</b>													
RT Seward-Anchorage (EVOS mettings)	140 1	140	140	140 1	140	140	140 1	140	140	420	420		
RT Anchorage-Seward (workshop)	140 1	140	140	140 1	140	140			0	0	280	280	
<b>Other Travel (5790)</b>													
Workshop food		0	0	0 1	0	0			0	0	0	0	
<b>Total Travel and Per Diem</b>		<b>1,237</b>	<b>1,237</b>		<b>1,227</b>	<b>1,227</b>		<b>225</b>	<b>225</b>	<b>2,689</b>	<b>2,689</b>		
<b>d. Equipment/software &gt;\$5,000</b>	<b>Rate Qty</b>			<b>Rate Qty</b>			<b>Rate Qty</b>						
Kiosk exhibit w/ flatscreen display and computer controls	20,000 1	20,000	N/A	5,000 1	5,000	N/A			0	N/A	25,000	N/A	
<b>Total Equipment &gt;\$5,000</b>		<b>20,000</b>			<b>5,000</b>				<b>0</b>		<b>25,000</b>		
<b>e. Supplies/commodities/equipment &lt;\$5,000</b>	<b>Rate Qty</b>			<b>Rate Qty</b>			<b>Rate Qty</b>						
Rack card printing, project supplies		0	0	2,000 1	2,000	2,000			0	0	2,000	2,000	
<b>Total Supplies/commodities &lt;\$5,000</b>		<b>0</b>	<b>0</b>		<b>2,000</b>	<b>2,000</b>			<b>0</b>	<b>0</b>	<b>2,000</b>	<b>2,000</b>	
<b>f. Contracts/Services:</b>	<b>Rate Qty</b>			<b>Rate Qty</b>			<b>Rate Qty</b>						
Audio/video production	15,000 1	15,000	15,000	5,000 1	5,000	5,000			0	0	20,000	20,000	
<b>Total Services</b>		<b>15,000</b>	<b>15,000</b>		<b>5,000</b>	<b>5,000</b>			<b>0</b>	<b>0</b>	<b>20,000</b>	<b>20,000</b>	
<b>g. Other</b>	<b>Rate Qty</b>			<b>Rate Qty</b>			<b>Rate Qty</b>						
Workshop food	250 1	250	250	250 1	250	250			0	0	500	500	
<b>Total Other</b>		<b>250</b>	<b>250</b>		<b>250</b>	<b>250</b>			<b>0</b>	<b>0</b>	<b>500</b>	<b>500</b>	
<b>TOTAL Categories</b>		<b>76,183</b>	<b>56,183</b>		<b>39,931</b>	<b>34,931</b>		<b>4,667</b>	<b>4,667</b>	<b>120,781</b>	<b>95,781</b>		
Indirects on MTDC (no equip and contracts to 25,000 ea)		18,512			11,510			1,538		31,560			
<b>Total Per Funding Source</b>		<b>94,695</b>			<b>51,441</b>			<b>6,205</b>		<b>152,341</b>			

## Total Annual EVOSTC Public Outreach Funding Request

### Marine Debris Public Outreach Projects 2012-2014

<b>Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
<b>Proposal 1</b>	56,800	41,300	41,300	139,400
<b>Proposal 2</b>	28,059			28,059
<b>Proposal 3</b>	3,784	10,076	10,076	23,936
<b>Proposal 4</b>	94,695	51,441	6,205	152,341
<b>Total</b>	<b>183,338</b>	<b>102,817</b>	<b>57,581</b>	<b>343,736</b>

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Budget Category:</b>	Proposed FY 12	Proposed FY 13	Proposed FY 14	Proposed FY 15	Proposed FY 16	TOTAL PROPOSED
Personnel	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Travel	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Contractual	\$335.7	\$375.3	\$285.0	\$0.0	\$0.0	\$996.0
Commodities	\$2.0	\$2.0	\$0.0	\$0.0	\$0.0	\$4.0
Equipment	\$15.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15.0
<b>SUBTOTAL</b>	<b>\$352.7</b>	<b>\$377.3</b>	<b>\$285.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,015.0</b>
General Administration (9% of subtotal)	\$31.7	\$34.0	\$25.7	\$0.0	\$0.0	\$91.4
<b>PROJECT TOTAL</b>	<b>\$384.4</b>	<b>\$411.3</b>	<b>\$310.7</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,106.4</b>
Other Resources (Cost Share Funds)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

**COMMENTS:** In this box, identify non-EVOSTC funds or in-kind contributions used as cost-share for the work in this proposal. List the amount of funds, the source of funds, and the purpose for which the funds will be used. Do not include funds that are not directly and specifically related to the work being proposed in this proposal. Anticipated NOAA marine debris removal grants totaling \$420,000 for debris trucking and disposal, a portion of contract crew cost, project insurance, cleanup and monitoring reports, landing craft leases for transporting debris, helicopter leases for slinging debris to landing craft; Private and corporate donations of \$82,600 for fuel, watermaker supplies, remote camp equipment, tents, cots, stoves, and msc; ALPAR--debris bags; Johnson Tire-debris bags; Donated food from volunteers and GoAK (\$15,360); Donated private vessel time (\$318,500); Donated charter vessel time (\$45,000); Donated slip, launch, vehicle parking, and wharfage from Whittier, Seward, and Homer (\$8,900); GoAK will pay \$6,000 to an accountant for bookkeeping related to this project; The USFS will donate \$75,000 for fuel and disposal fees; Volunteers and GoAK board members will donate over 13,500 hours to this project (\$276,750); GoAK and researchers from UAA and College of William and Mary will

**FY12-16**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4A  
TRUSTEE AGENCY  
SUMMARY**



**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Personnel Costs:</b>		Months Budgeted	Monthly Costs	Overtime	Personnel Sum
Name	Project Title				
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
		Subtotal	0.0	0.0	
<b>Personnel Total</b>					<b>\$0.0</b>

<b>Travel Costs:</b>	Ticket Price	Round Trips	Total Days	Daily Per Diem	Travel Sum
Description					
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
<b>Travel Total</b>					<b>\$0.0</b>

**FY12**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
PERSONNEL & TRAVEL  
DETAIL**



**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>New Equipment Purchases:</b> Description	Number of Units	Unit Price	Equipment Sum
Remote controlled underwater video camera for stranded net and other derelict fishing gear identification	1.0	15.0	15.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
<b>New Equipment Total</b>			<b>\$15.0</b>

<b>Existing Equipment Usage:</b> Description	Number of Units	Inventory Agency
Outboards	2	2
Inflatable, skiffs	2	2
chainsaws	2	2
still cameras	3	3
video cameras	2	2
Handheld radios	5	5
Handheld GPS	4	4
Satellite phone	1	1
Smooth Talker cell phone booster	1	1
Super Sacks	200	350

**FY12**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
EQUIPMENT DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Personnel Costs:</b>		Months Budgeted	Monthly Costs	Overtime	Personnel Sum
Name	Project Title				
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
		Subtotal	0.0	0.0	
<b>Personnel Total</b>					<b>\$0.0</b>

<b>Travel Costs:</b>	Ticket Price	Round Trips	Total Days	Daily Per Diem	Travel Sum
Description					
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
<b>Travel Total</b>					<b>\$0.0</b>

**FY13**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
PERSONNEL & TRAVEL  
DETAIL**



**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>New Equipment Purchases:</b> Description	Number of Units	Unit Price	Equipment Sum
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
<b>New Equipment Total</b>			<b>\$0.0</b>

<b>Existing Equipment Usage:</b> Description	Number of Units	Inventory Agency
Outboards	2	2
inflable skiffs	2	2
chainsaws	2	2
still cameras	3	3
video cameras	2	2
handheld VHF radios	5	5
handhelp GPS	4	4
satellite phone	1	1
Smooth Talker cell phone booster	1	1
Super Sacks	350	350

**FY13**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
EQUIPMENT DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Personnel Costs:</b>		Months Budgeted	Monthly Costs	Overtime	Personnel Sum
Name	Project Title				
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
		Subtotal	0.0	0.0	
<b>Personnel Total</b>					<b>\$0.0</b>

<b>Travel Costs:</b>	Ticket Price	Round Trips	Total Days	Daily Per Diem	Travel Sum
Description					
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
<b>Travel Total</b>					<b>\$0.0</b>

**FY14**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
PERSONNEL & TRAVEL  
DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Contractual Costs:</b> Description	Contract Sum
9-person marine debris cleanup contract crew with one support vessel	285.0
If a component of the project will be performed under contract, the 4A and 4B forms are required.	<b>Contractual Total</b> \$285.0

<b>Commodities Costs:</b> Description	Commodities Sum
	<b>Commodities Total</b> \$0.0

**FY14**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
CONTRACTUAL &  
COMMODITIES DETAIL**



**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>New Equipment Purchases:</b>			
Description	Number of Units	Unit Price	Equipment Sum
chainsaws			0.0
still cameras			0.0
video cameras			0.0
handheld VHF radios			0.0
handheld GPS			0.0
satellite phone			0.0
Super Sacks			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
<b>New Equipment Total</b>			<b>\$0.0</b>

<b>Existing Equipment Usage:</b>		
Description	Number of Units	Inventory Agency
chainsaws	2	2
still cameras	3	3
video cameras	2	2
handheld VHF radios	5	5
handheld GPS	4	4
satellite phone	1	1
Super Sacks	350	350

**FY14**

**Program Title: Marine Debris Removal  
Team Leader: Chris Pallister  
Agency: Gulf of Alaska Keeper**

**FORM 4B  
EQUIPMENT DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Personnel Costs:</b>		Months Budgeted	Monthly Costs	Overtime	Personnel Sum
Name	Project Title				
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
		Subtotal	0.0	0.0	
					<b>Personnel Total</b>
					<b>\$0.0</b>

<b>Travel Costs:</b>	Ticket Price	Round Trips	Total Days	Daily Per Diem	Travel Sum
Description					
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					<b>Travel Total</b>
					<b>\$0.0</b>

**FY15**

**Program Title:**  
**Team Leader:**  
**Agency:**

**FORM 4B  
PERSONNEL & TRAVEL  
DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Contractual Costs:</b> Description	Contract Sum
If a component of the project will be performed under contract, the 4A and 4B forms are required.	<b>Contractual Total</b>
	\$0.0

<b>Commodities Costs:</b> Description	Commodities Sum
	<b>Commodities Total</b>
	\$0.0

**FY15**

**Program Title:**  
**Team Leader:**  
**Agency:**

**FORM 4B  
CONTRACTUAL &  
COMMODITIES DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>New Equipment Purchases:</b> Description	Number of Units	Unit Price	Equipment Sum
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
<b>New Equipment Total</b>			<b>\$0.0</b>

<b>Existing Equipment Usage:</b> Description	Number of Units	Inventory Agency

**FY15**

**Program Title:**  
**Team Leader:**  
**Agency:**

**FORM 4B  
EQUIPMENT DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Personnel Costs:</b>		Months Budgeted	Monthly Costs	Overtime	Personnel Sum
Name	Project Title				
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
		Subtotal	0.0	0.0	
<b>Personnel Total</b>					<b>\$0.0</b>

<b>Travel Costs:</b>	Ticket Price	Round Trips	Total Days	Daily Per Diem	Travel Sum
Description					
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
<b>Travel Total</b>					<b>\$0.0</b>

**FY16**

**Program Title:**  
**Team Leader:**  
**Agency:**

**FORM 4B  
PERSONNEL & TRAVEL  
DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>Contractual Costs:</b> Description	Contract Sum
If a component of the project will be performed under contract, the 4A and 4B forms are required.	<b>Contractual Total</b>
	\$0.0

<b>Commodities Costs:</b> Description	Commodities Sum
	<b>Commodities Total</b>
	\$0.0

**FY16**

**Program Title:**  
**Team Leader:**  
**Agency:**

**FORM 4B  
CONTRACTUAL &  
COMMODITIES DETAIL**

**EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL  
DETAILED BUDGET FORM FY 12-FY16**

<b>New Equipment Purchases:</b> Description	Number of Units	Unit Price	Equipment Sum
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
			0.0
<b>New Equipment Total</b>			<b>\$0.0</b>

<b>Existing Equipment Usage:</b> Description	Number of Units	Inventory Agency

<b>FY16</b>
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<b>Program Title:</b> <b>Team Leader:</b> <b>Agency:</b>
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<b>FORM 4B EQUIPMENT DETAIL</b>
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