

**I. Project Title**

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

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

**IV. 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.

**V. 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.

#### **VI. 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.

#### **VII. 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.

**VIII. 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.