

Alaska Clean Water Actions Grants - FY11

Below are summaries of the Alaska Clean Water Actions Grants for projects starting in July 2010 and finishing in June 2011. The summaries are arranged by region of the state and include the contact information for the group conducting the project.

Southeast Region

Granite Creek Recovery and TMDL Implementation, City and Borough of Sitka, \$ 21,050

This project addresses an ACWA Waterbody Recovery priority. Granite Creek is an impaired waterbody from turbidity and suspended sediment resulting from local roads, run-off pollution from recent watershed development and gravel mining operations. Plans for recovery were approved in September 2002 and ACWA funds have been supporting the city's effort in restoring Granite Creek. This project will focus on several activities designed to continue improving the water quality of Granite Creek and the North and South tributaries. The project will work on riparian buffer protection and revegetation and conduct water quality and fish counts to determine the effectiveness of the actions and overall health of the creek for attainment of water quality standards and removal of the impairment status. Contact: Mark Buggins, 907- 966-2256.

Onemile (Holgate) Creek Watershed Protection and Education Project (Haines), Takshanuk Watershed Council (TWC), \$13,000

This project addresses an ACWA Waterbody Protection priority. This project will protect and maintain anadromous fish and wildlife habitat through conducting stream gauging to establish an instream flow reservation with ADF&G's Sport Fish Division. TWC will continue to collect discharge measurements using USGS protocols to capture the flow characteristics at the range of flows during all seasons, download gauge data, and provide it to the ADF&G to be used for an instream flow reservation. This will insure enough information is collected for filing an instream flow reservation. Contact: Emily Seward, 907-766-3542.

Sawmill Creek Watershed Protection and Education (Haines), Takshanuk Watershed Council (TWC), \$20,000

This project addresses an ACWA Waterbody Restoration priority. This project will continue to work in partnership with ADF&G Sport Fish Division to conduct stream gauging to establish an instream flow reservation. TWC will continue to collect discharge measurements using USGS protocols to capture the flow characteristics at the range of flows during all seasons, download gauge data, and provide it to the ADF&G to be used for an instream flow reservation. This will be the final year required for filing an instream flow reservation. The project

will also educate citizen science volunteers, educators and students by producing brochures encompassing a Watershed Map and points of interest. Contact: Emily Seward, 907-766-3542.

South Central Region

Cottonwood Creek Outreach, Snowshoe Water, \$5,000

This project will lead to the development of educational outreach material and a website for best management practices and community discussions boards (blogs) for the people who live in the Snowshoe Subdivision and nearby Cottonwood Creek. The Snowshoe Subdivision source of drinking water is groundwater from a well located in the subdivision. The water system is classified as a Community Water System. The outreach efforts will not only address strategies protect the groundwater from contamination as well as focus efforts on reducing contaminated runoff to nearby Cottonwood Creek, which is designated an impaired surface water body. Contact: Garyn Johnson, 907-376-9287

Kenai River Water Quality Monitoring, Kenai Watershed Forum (KWF), \$20,000

This project addresses an ACWA Waterbody Protection priority. The Kenai River is one of the premier commercial and sportfish rivers in southcentral Alaska. Water quality monitoring of the river led to actions to insure water quality is maintained. This project continues the multi-agency annual petroleum hydrocarbon sampling effort in the Kenai River watershed at 22 index sites during peak power boat usage. The project will produce a final report that analyzes the results, evaluates trends and compares to the water quality standards. This water quality monitoring effort will ensure the Kenai River Waterbody Recovery Plan continues to be effective and that water quality standards are met. Contact: James Czarnezki, (907) 260-5478.

Little Susitna River Hydrocarbon Evaluation, Aquatic Restoration & Research Institute (ARRI), \$75,428

This project addresses an ACWA Waterbody Protection priority. Located in the Matanuska-Susitna Borough, the Little Susitna River is an important recreational and sportfish river. Through previous ACWA grants, ARRI sampling in 2007-2009 found elevated levels of petroleum hydrocarbon and possibly turbidity that exceeded state standards. Further study is needed to better understand the influence of boat motor type and operation to water quality. Project tasks include: (1) further quantifying the spatial and temporal distribution of total aromatic hydrocarbon (TAH) concentrations adjacent to the boat launch and

campground (Public Use Facility) and to determine the relationship between 2-stroke motor use, stream flow, and TAH concentrations; (2) measuring stream water turbidity effects from boat use; (3) measuring the effects of water quality on the biotic community; and (4) collecting basic water quality data. A project report will be completed that analyzes, evaluates and makes recommendations based upon the data collected. Contact: Jeff Davis, (907) 733-5432.

Mat-Su Stormwater Assessment, Aquatic Restoration & Research Institute (ARRI), \$40,000

This project addresses an ACWA Stewardship priority. The objective of this project is to determine if urban stormwater runoff is negatively impacting water quality. Stormwater runoff from developed roads, parking areas, commercial lots, homes, urban farms, and more, can deliver heavy metals, fine sediments, excess nutrients and other pollutants to receiving waters. The Matanuska-Susitna Borough and the core areas of Palmer and Wasilla have been the fastest growing regions in Alaska. As development increases, the concern for stormwater runoff pollution increases. This study will be conducted along three urban stream systems: Wasilla Creek, Cottonwood Creek, and Little Meadow Creek. These streams are important for salmon spawning and rearing but also receive urban stormwater runoff. The project will locate and map areas of stormwater discharge and will conduct water sampling for heavy metals, hydrocarbons, and sediment. A project report will be completed that analyzes and evaluates the data collected as compared to the water quality standards and will include GIS maps. Contact Jeff Davis, (907) 733-5432.

Monitoring Bacteria Levels on Homer Beaches, Cook Inlet Keeper (CIK), \$42,487

This project addresses an ACWA Stewardship priority. Beaches in the Homer area experience heavy recreation use during the summer months by local residents and tourists. This project will monitor the bacteria levels at two locations on the Homer Spit (Mariner Park and Land's End), and at Bishop's Beach. The project will monitor during its peak-use and institute a public notification system when bacteria levels raise public health concerns. This will ensure protection of public health by all Homer beach users. Contact: Rachel Lord, (907) 235-4068 ext, 29.

Stream Temperature Monitoring Network - Cook Inlet, Cook Inlet Keeper (CIK), \$70,558

This project addresses an ACWA Stewardship priority and will collect the third year of 5 years of data for this project. Water temperature is one of the most significant factors in the health of stream ecosystems. For salmon specifically, temperature affects survivorship of eggs and fry, rate of respiration and metabolism, timing of migration, and resistance to disease and pollution. There

is an urgent need to assess rising temperatures in Alaska salmon habitats because temperature plays a critical role in salmonid habitat protection, reproduction and survivorship; and because wild, healthy salmon support vital sport, commercial, subsistence and personal use fisheries across Alaska. Recently, a partnership of state, federal and nonprofit organizations has developed recommended protocols for collecting stream temperature data as well as a system for selecting temperature monitoring sites. The main objectives of this project are to 1) continue implementing a Stream Temperature Monitoring Network to collect consistent, comparable temperature data for Cook Inlet's salmon streams; 2) analyze collected data to establish natural conditions and generate GIS maps of the Cook Inlet basin to illustrate temperature patterns; and 3) provide a user-friendly template to transfer water temperature protocols to other salmon-bearing systems across the state. The Stream Temperature Monitoring Network in Cook Inlet will allow fisheries managers and land-use planners to identify watershed characteristics with the greatest potential to buffer salmon habitats from rising air and water temperatures, and provide the knowledge and data needed to prioritize sites for future research, protection and restoration actions. Contact: Sue Mauger, (907) 235-4068 ext, 24.

Turbidity Monitoring on the lower Kenai River, Kenai Watershed Forum (KWF), \$34,826

This project addresses an ACWA Waterbody Protection priority. The Kenai River is one of the premier commercial and sportfish rivers in southcentral Alaska. KWF will collect turbidity data at three (3) locations to establish naturally occurring background levels and anthropogenic sources. The data can then be used to help determine if water quality standards are being met. Contact: James Czarnezki, (907) 260-5478.

Interior Region

Goldstream Creek and Crooked Creek Turbidity, University of Alaska Fairbanks , \$33,000

This project addresses an ACWA Recovery priority. Goldstream Creek and Crooked Creek are impaired from turbidity. This project will update the current quality assurance project plan (QAPP) for Goldstream Creek and conduct the water quality monitoring described in the plan. The data allow DEC to determine what actions may be necessary to restore Goldstream Creek. The project will also provide information on site access and condition on Crooked Creek. The information will be used to finalize proposed sampling locations. Contact: Maggie Griscavage, 907-474-5506.

Gulkana Village Public Water System, Gulkana Village Council, \$10,000

This project identifies 18 unused wells in the village that will be decommissioned. Decommissioning unused wells has been identified as a protection strategy for the village's drinking water source. In addition, since their drinking water source is classified as Under the Direct Influence of Surface Water their source can be impacted by the Gulkana River. Outreach efforts will be developed and implemented that focus on reducing the impacts of public camping and residential areas up gradient from their well. Contact: Rick Young, 907-822-3172.

Western Region

Source Water Information Display, City of Sandpoint, \$2,000

This project, building an information kiosk for the public to view at the entry point to the Humboldt Creek watershed, is the first step of the long-range protection plan, Humboldt Creek feeds into the Humboldt Reservoir which serves as the primary water source for two public water systems: City of Sand Point and Trident Seafoods. Currently the dock to the water intake is used by the public for fishing. The long range drinking water protection plan for the water system is to relocate the intake and dock to a different part of the reservoir. The city plans to build a dock specifically for fishing, providing this access is meant to keep the public away from the intake dock. Contact: Allen Hill, 907-383-3435

Stormwater Collection-Sediment Separators, City of Unalaska, \$30,000

This project addresses an ACWA Stewardship priority. The project will complete the engineering and install three (3) sediment separators in the City's stormwater collection system. The purpose of the project is to protect a local salmon stream that runs through the City of Unalaska by reducing sediment laden stormwater from directly discharging to the stream. This is the first year of a two year project. This is the second year of this project where the actual installation of the sediment separators is completed. Contact: J.R. Pearson, 907-581-1260.