

Alaska Clean Water Actions Grants - FY06

Below are summaries of the Alaska Clean Water Actions (ACWA) Grants for projects starting in July 2005 and finishing in June 2006. The summaries are arranged by region of the state and include the contact information for the group doing the project.

Southeast Region

Duck Creek Monitoring, Cleanup and Culvert Replacement, (Juneau) Mendenhall Watershed Partnership, \$31,950

Duck Creek is in need of recovery due to water quality concerns with sediment, residues, turbidity, dissolved oxygen, fecal coliform, and altered flows, which has resulted in significant declines in salmon returns. This project will replace failing and inadequate culverts along Duck Creek that impede fish passage, continue to remove debris, and implement the monitoring strategy developed this year to assess the effectiveness of restoration practices. Environmental benefits include: improved water quality for in-stream and estuary ecosystems, reduction in the amount of debris that cause pollution and restrict fish access, and improved flow and habitat quality by reducing iron floc and improving dissolved oxygen levels. Contact Mark Jaqua, 907-586-6853.

Jordan Creek Watershed Recovery, (Juneau) Mendenhall Watershed Partnership, \$30,430

Jordan Creek is currently impaired from trash, sediment, and low dissolved oxygen, which has resulted in declining salmon runs. This project will remove debris and barriers to fish movement, work with City and Borough of Juneau and local residents on steps to reduce further buildup of debris, and design a stabilization and restoration project for a tributary of Jordan Creek. Environmental benefits include: reduction in the amount of debris that cause pollution, improved flow and habitat quality. Contact Mark Jaqua, 907-586-6853.

Pederson Hill Creek Restoration (Juneau) Mendenhall Watershed Partnership, \$16,049

Pederson Hill Creek is impaired by bacteria contamination that has been documented since the 1980's. This project will develop a watershed assessment and management plan that addresses fecal coliform pollution. Environmental benefits include: identification and measurement of pollution from industrial sites, on-site septic systems, and road maintenance. The assessment and management plan will recommend actions to reduce contamination or promote restoration and remediation of pollution sources. Contact Mark Jaqua, 907-586-6853.

Granite Creek Recovery Project, City and Borough of Sitka, \$19,100

Sitka will continue the restoration of Granite Creek, for which long-term pollution problems have been identified. Since 2001, with the help of ACWA grants, the City of Sitka has developed a Total Maximum Daily Load (TMDL) and restoration strategy and has begun cleaning up the creek. The Granite Creek Watershed Recovery Strategy and TMDL were approved in September 2002. This project implements the remaining tasks in the multi-year strategy that will result in consistently meeting water quality standards. Environmental benefits include fully restoring water quality through: stormwater drainage and treatment improvements; maintaining and establishing stable and functional stream buffers; seeding and stabilizing erodible soils to achieve biofiltration of sediments; and verifying effectiveness of numerous sediment controls through water quality monitoring and environmental audits. Contact Mark Buggins, (907) 966-2256.

Pullen Creek Restoration, Skagway Traditional Council, \$43,021

Pullen Creek is impaired, with historical studies showing elevated levels of lead, zinc, cadmium, copper and mercury, and concerns about other parameters. Since 2003, with the help of ACWA grants, the Skagway Traditional Council has conducted monitoring on Pullen Creek to determine the levels of various parameters and scope of impairment. Using the information conducted from the past monitoring efforts, this project will develop a waterbody recovery plan in accordance with DEC requirements. Contact Lance Twitchell, (907) 983-4068

Skagway Stormwater Mapping, Taiya Inlet Watershed Council, (\$22,000)

Currently there is no stormwater management plan for the community of Skagway or the upper Taiya Inlet Watershed. This project will, in collaboration with the City of Skagway, lay the foundation for creating a stormwater management plan to protect and improve water quality in waters in the Skagway area. The project will map Skagway stormwater discharges and collect baseline information, and provide education for residents and others about stormwater management. Contact Amber Bethe, (907) 983-2426

Status & Trends of Fish Habitat on Private Timberlands in SE Alaska, (Southeast Alaska) Sealaska Corp., \$68,081

The grant will complete a study on the status of fish habitat in Southeast Alaska. Since 1997, several basins that were surveyed have been logged; therefore, post-logging data needs to be collected at many of these sites to determine how well existing practices protect fish habitat. This project is funded to complete monitoring on all basins where pre-logging and pre/post-logging data exist to document status and trends in habitat conditions. Results will facilitate a state resource agency evaluation of forestry Best Management Practices (BMP) effectiveness. Contact Ronald Wolfe, 907-586-9277.

Northern/Interior Regions

**Copper River Watershed Baseline Assessment, (Copper River Watershed),
Copper River Watershed Project (CRWP), \$33,292**

The Copper River watershed is a priority for protection, with water quality being a primary concern. The Copper River Watershed is used for anadromous fish spawning and rearing, subsistence, and recreation. In 2005, the FishWatch Planning Team, an inter-jurisdictional partnership of state and federal agencies, non-profits, Tribes, and the CRWP delineated the Copper River watershed into sub-watersheds, identified stressors of fish habitat and water quality in the Copper River watershed, and ranked the region's sub-watersheds according to vulnerability. In FY 2006 the CRWP will collect water quality and human use data for selected lakes, streams, and rivers, including hydrocarbon monitoring at Eyak Lake, and identify storm water discharge contents at key sites in Cordova (including Eyak Lake). These efforts will help protect the Copper River watershed's salmon based economy by identifying potential problems that need to be addressed to assure the continued high quality of Copper River spawning, rearing and migration habitat.

Mat-Su Region

Cottonwood Creek Water Quality Monitoring, Matanuska-Susitna Valley, ARRI, \$39,531
Cottonwood Creek is a priority water in need of recovery with foam and debris pollution from urban runoff and development being a primary water quality concern. Significant amounts of foam have been frequently observed in the Creek since 1998. During summer, portions of the creek have algal blooms and clear, gelatinous, slimy algae growth which may be associated with increased nutrients. Past analyses of fish have indicated lesions that may be associated with water pollutants. Other recent monitoring indicates elevated temperature and fecal coliform bacteria levels. Initial assessments begun in 2004 suggest foam is due in part to natural conditions; however, more data is needed to determine if septic systems are contributing nutrients that may increase the foam levels. This year's project will continue to evaluate temperature conditions and further identify bacteria and other pollutants from septic systems may be entering the stream. The information will be used to develop strategies to address pollution sources. Contact Jeffrey Davis 907-240-3422

Montana Creek Impact Assessment, Matanuska-Susitna Valley, ARRI, \$41,584
Montana Creek provides spawning and rearing habitat for salmon and trout; the lower reaches supports one of the most popular salmon fisheries in South-central Alaska and the upper river provides a trophy rainbow trout fishery. Recreational development impacts have resulted in the loss of riparian vegetation and may be affecting the water quality and habitat components necessary to support the fish resources. This project will evaluate the current condition and causes of habitat modification, monitoring their effects on stream conditions. It will survey the Creek and quantify habitat modification by type and location. Monitoring stations will be established at 3 locations to evaluate water quality, water quantity, and habitat. The information collected will be used to develop measures that protect water quality and fish habitat. Contact Jeffrey Davis 907-240-3422

Upper Susitna Watershed ATV impact planning, Upper Susitna Soil and Water Conservation District, \$20,000

Several streams in the upper Susitna Valley have been identified as high and medium ACWA priority waters, partially due to ATV impacts. Based on past and ongoing assessments and monitoring, this project will identify specific locations for hardening ATV crossings and for

locating ATV bridges and identify and implement appropriate outreach campaigns to reduce ATV impacts. Contact Rick Ernst, 907-733-7923

Anchorage Region

University Lake Spatial & Temporal Distributions of Bacteria, (Anchorage),
UAA Engineering, \$65,000

University Lake is a waterbody currently listed as impaired for fecal coliform, which is used as an indicator for pollution from wildlife or human sources. This project will conduct monitoring to investigate the distributions of fecal coliform bacteria in the lake and the sources of the bacteria. The project will focus upon how lake conditions influence the longevity and distribution of fecal coliform within the lake to provide recommendations for a recovery and monitoring plan. It is anticipated that the research results may be helpful for decisions at other lakes with fecal coliform since many of the same conditions will be prevalent in similar waterbodies throughout the region. William E. Schnabel, (907) 786-1912

Kenai Region

Anchor River Watershed Monitoring, (South Kenai Peninsula), Community Rivers Planning Coalition, \$51,750

The Anchor River is a priority water with water quality concerns for temperature, turbidity and phosphorus. This project will continue to provide online, in-stream monitoring stations located near the mouth of the Anchor River, just above the confluence of the North and South Forks to further determine the sources and timing of temperature and turbidity problems. A main objective is to determine natural turbidity and temperature conditions. This is important in evaluation of future river conditions. Determining natural turbidity conditions is difficult for the many natural conditions a river system experiences, however, unless frequent measurement intervals are used. The combined work will help differentiate natural and human caused turbidity sources so that strategies can be developed to address the human caused sources. Contact Jessica R. Blackledge 907-235-8177

Kenai Peninsula Salmon Streams, Homer Soil & Water Conservation District, \$90,500

This project addresses Deep Creek, Anchor River, and Ninilchik River, which are priority waters in need of protection, with habitat and water quality being primary concerns. Water quality standards of concern are temperature, turbidity and phosphorus. This project, which addresses ACWA priority actions for these rivers, will determine the spatial and temporal extent of elevated temperatures; assess relationships with local air temperature data; identify warmer tributaries and possible pollution sources due to human activities; evaluate whether existing turbidity data are representative of natural conditions; collect turbidity data to determine if sediment is related to human activity, continue to monitor nutrient levels to determine if elevated phosphorus levels are geologic or anthropogenic, and evaluate stream bank impacts on the Anchor River. Water quality information will facilitate resource management decisions that will protect these economically important salmon streams. Contact Shirley Schollenberg, 907-235-8177.

Kenai River Bacteria Monitoring, Kenai Watershed Forum, \$41,575

This project addresses the Kenai River, a priority water with water quality and habitat concerns. The project will follow-up on previous studies by addressing fecal coliform concerns in the River. Over the past 5 years, data collected by the KWF has indicated an anomaly of elevated fecal coliform in the Lower Kenai River as well as several tributaries. This project will help determine the sources of the fecal coliform so that strategies may be developed to address them. Preliminary data indicate that spring and early summer in the lower Kenai River are where the highest concentrations of fecal coliform are regularly detected. It is unclear if these bacteria are from local runoff, runoff from small tributaries, tidally transported or derived from local groundwater. Contact Robert Ruffner, 907-260-5449.

Western Alaska Region

Lower Nushagak Fecal Coliform and Water Quality Screening, Alaska Soil and Water Conservation District, \$24,175

The Nushagak River is a large highly productive salmon-producing system in Southwest Alaska and is a priority ACWA water. It provides significant subsistence, commercial, recreational and other resource-based benefits. Uses are increasing and projected to continue increasing. Very little water quality monitoring has been done on this system and concerns about bacteria and other pollution from recreational and other uses are growing. This project would collect screening-level water quality data to provide initial data to determine long-term monitoring and management strategies for the watershed. Contact Lisa Ferber, 907-271-2424.