

FY 14 Alaska Clean Water Action Grant Accomplishments September 2014

Auke Lake Water Quality Monitoring

Juneau Watershed Partnership (JWP), \$17,729; Contact: Gretchen Pikul 465-5023

Petroleum hydrocarbons were found exceeding water quality standards during high use summer months. The heaviest motorized use days in June/July 2013 reflect the highest concentrations. The majority of engines used on the lake included 2-stroke boats and 4-stroke jet skis.

Deliverables: [Outreach and Water Quality Monitoring Reports](#) (photos – Figure 1, data sheets, results, AWQMS data entry sheets); Quality Assurance Project Plan (QAPP).

Homeowner On-site Wastewater System Education Project

Ketchikan Gateway Borough, \$10,000; Contact: Gretchen Pikul 465-5023

Educational materials were developed and provided to the 1,230 homeowners with septic systems; the outreach message included information on the Borough's mandatory sludge pumping program. Four well attended public meetings were held, with many practical questions/solutions discussed.

Borough Municipal Codes were changed allowing the Borough to notify homeowners with deficient systems, approve repair plans, and penalize non-compliant, deficient, or failed systems. Changing the code was a direct result of the educational efforts.

Deliverables: Final report; outreach materials (presentation, meeting summary, 101 flyer and magnets).

Juneau Hydrography – Storm Water Mapping Project

Juneau Watershed Partnership, \$17,554; Contact: Gretchen Pikul 465-5023

Three of the five impaired waterbodies in Juneau (Lemon, Vanderbilt, and Pederson Hill Creeks) were mapped to complete the GIS urban hydrography data layer showing stormwater flow and structures for these watersheds. The mapping leads to a better understanding of the waterbodies and stormwater system connections; the City & Borough of Juneau and Alaska DOT&PF will use the data to enhance current stormwater management plans and treatment options, and design future restoration projects.

Deliverables: GIS geodatabase; Juneau Stormwater Hydrography Report (Figure 2, comprehensive spreadsheet).

Ketchikan Creeks: Storm Water Quality Assessment

Aquatic Restoration and Research Institute, \$62,056; Contact: Gretchen Pikul 465-5023

Baseline water quality information on Ketchikan, Hoadley and Carlanna Creeks showed metal (cadmium, copper, zinc, and lead) concentrations above NOAA recommended acute and chronic toxicities, fecal coliform above water quality standards, a decreasing stream health trend, and juvenile coho salmon showed atypical markings (although it is unknown whether the deformity is a normal variation or effects of contaminants).

Deliverables: GIS geodatabase; Quality Assurance Project Plan (QAPP), Water Quality Monitoring Report (including results, AWQMS data entry sheets).

Clean Boating on Big Lake & Clean Boating on Little Susitna River

Cook Inletkeeper (CIK), \$40,178; Contact: Laura Eldred 376-1855

CIK staff spoke with over 400 people at boat launches on Big Lake and the Little Susitna River, at major outdoor shows, at civic events (e.g., Rotary meetings) and community events (e.g., Fishing Derby) and handed out approximately 100 clean boating kits to actual users. Radio and print media were also used to reach a broader audience. Boaters were encouraged to practice clean boating skills; provided information on petroleum's negative impacts on human health and fish habitat and equipment to reduce oil discharge from bilges. Survey results showed most people do not know these waters are at risk of pollution, do not currently practice clean boating techniques, live outside the immediate area and have been boating for more than 10 years.

Deliverables: Clean boating kits; [Clean Boating on Big Lake Report](#); [Clean Boating on the Little Susitna Report](#); news articles; Photographs (Figure 3, clean boating events), outreach materials (e.g., stickers, handouts, new signs).

Cottonwood Creek Septic Smart: Homeowner Outreach

Mat-Su Resource Conservation Development Council, \$17,555; Contact: Laura Eldred 376-1855

Five septic cooperatives were established in the lower Cottonwood Creek neighborhoods (within impaired stream reach). A septic pumping cooperative is where a group of homeowners collaborate to regularly maintain their on-site septic systems, obtaining a discounted rate from the participating septic pumping companies. Over 500 homeowners were provided information on the importance of proper use and regular maintenance for on-site septic systems either through face-to-face conversations or neighborhood presentations. All area septic companies were contacted for providing discounted rates for pumping services within the targeted area.

Deliverables: Maps showing impaired area Cottonwood Creek and adjacent neighborhoods for target outreach efforts; media article about project; [outreach materials](#) on Cottonwood Creek Septic Pumping Cooperative (including flyers, posters); photos of outreach (Figure 4).

Evaluate Scoop-the-Poop Stations in Anchorage

Anchorage Waterways Council, \$44,200; Contact: Tim Stevens 269-7515

A comprehensive report of the current status of the Scoop the Poop (STP) stations was provided to the Municipality of Anchorage (MOA). Sixteen stations were replaced or repaired (Figure 5). The report will be used by MOA for future upgrades and repairs.

Deliverables: Final report (comprehensive map, field data sheets, status matrix); informational rack with insert cards; and recommendations on how to improve the STP program.

Mat-Su Palmer Rain Garden Demo

Mat-Su Resource Conservation Development Council, \$38,500; Contact: Laura Eldred 376-1855

This project constructed a 1,200 ft² engineered rain garden at the highly visible Mat-Su Senior Service Center in Palmer (Figure 6). The rain garden absorbs 11,448 ft³ of parking lot/roof runoff and prevents it from discharging to the Matanuska River. The project also installed a kiosk with permanent interpretive signs on stormwater and how rain gardens function. Over 100 volunteers worked on the rain garden and the project received excellent media coverage. Additionally, several hundred people received information on low impact development including rain gardens at the Mat-Su Homeshow.

Deliverables: Brochure for Mat-su Rain Garden Tour; kiosk education panels; Powerpoint presentations about low impact development (including rain gardens); and rain garden installation (media articles, press release, photos).

Chena River – Our Living River

Tanana Valley Watershed Association, \$51,353; Contact: Chandra McGee 451-2140

This project constructed 5 demonstration projects and conducted outreach to educate the Fairbanks community about Green Infrastructure. Rain gardens and flow through planters were constructed at a number of public facilities (Figure 7); installed signs near projects to provide on-going education. Other [outreach](#) activities ranged from video productions, workshops, web site development and hosting, mapping projects and a soft covered guidebook.

Deliverables: Flow through planter, green roof, Living River Resource Guide (soft cover book); Outreach materials (including direct mailing to homeowners, PowerPoint presentation, website) kiosks, rain barrels installation; rain garden installation; tree pits; YouTube video; workshops.

Figure 1. Auke Lake Outreach



Figure 2. Mapping for Lemon Creek (showing stormwater structures & outfalls)



Figure 3. Clean Boating Kits being handed out at Big Lake boat launch



Figure 4. Septic Smart at Mat-su Homeshow



Figure 5. Arctic & Benson Dog Park



Figure 6. Palmer Rain Garden



Figure 7. Carlson Center Rain Garden

