2023-2025 Alaska Clean Water Actions Grant Summaries

Southeast Region

Bacteria Pollution Reduction in Ketchikan Through Outreach and Education

Southeast Alaska Watershed Coalition, $66,581
Applicant Contact: Rebecca Bellmore, (812) 603-4910

This project implements outreach activities identified in an area watershed plan designed to protect or improve water quality. Thirteen Ketchikan area beaches are listed as impaired waterbodies for pathogen pollution. In 2021 a Ketchikan Area Bacteria Management Plan was completed with support from multiple community and agency partners. This project will address three priority outreach and education topics including addressing pet waste reduction, harbor pump-out use, and septic system maintenance. Outreach activities will vary depending on the audience and will include utilizing social media, radio announcements, signage, and community engagement. Project partners include the Ketchikan Gateway Borough, City of Ketchikan Ports and Harbors, and the Ketchikan Indian Community. A final report summarizing project activities will be available on the DEC website at project conclusion.

Skagway Rain Garden Expansion

Skagway Traditional Council, $42,159
Applicant Contact: Reuben Cash, (360) 296-9538

This project implements a water quality restoration priority. Pullen Creek is an urban salmon-bearing stream in Skagway and was listed as an impaired waterbody in 2006. A recovery plan was completed in 2010 and several implementation activities have occurred. This project will construct 4 to 6 green infrastructure stormwater treatment cells (infiltration basins) to receive stormwater runoff from approximately 66,000 square feet of asphalt at two locations on Spring Street and 9th Avenue. The project will also install signage and perform maintenance at the existing rain garden on 11th Street successfully implemented in a 2014 ACWA grant. The purpose of these structures is to intercept and clean up the stormwater runoff before it reaches Pullen Creek. Project partners include the Municipality of Skagway Borough (MOS), Skagway Traditional Council (STC), Southeast Alaska Watershed Coalition (SAWC), and local school children. A final report summarizing project activities will be available on the DEC website at project conclusion.

Urban Riparian Inventory and Stormwater BMP Options for Ketchikan

Southeast Alaska Watershed Coalition, $35,785
Applicant Contact: Rebecca Bellmore, (812) 603-4910

This project implements activities identified in an area watershed plan designed to protect or improve water quality. This project is related to another Ketchikan ACWA project to collect water quality data

and together the two projects will provide a more complete picture of stormwater impacts to three Ketchikan watersheds. The Southeast Alaska Watershed Coalition (SAWC) and Ketchikan Indian Community (KIC) will conduct on-the-ground riparian inventories of the three urban creeks in Ketchikan, Alaska. Ketchikan, Hoadley, and Carlanna Creek watersheds will be inventoried for the extent of urbanization, stormwater runoff, and habitat alteration within the riparian areas and identify options for protecting or improving these areas from nonpoint source pollution. Based on the inventory outcomes and existing geospatial data, SAWC and KIC will identify site-specific stormwater best management practice (BMP) options for the riparian and upslope areas in these watersheds to protect or improve water quality. Finally, SAWC and KIC will compile general guidance for low impact development (LID) options that are suitable for Ketchikan's climate and terrain and can be applied to future (re)development projects. Project partners will communicate findings from the project to relevant City and Borough departments, including Public Works and Planning and Community Development, and KIC staff responsible for housing and land and development, who are planning new developments at several locations in the near future. A final report summarizing project activities will be available on the DEC website at project conclusion.

Water Quality Monitoring in Ketchikan's Urban Creeks

Southeast Alaska Watershed Coalition, $109,478
Applicant Contact: Rebecca Bellmore, (812) 603-4910

This project implements nonpoint source pollution water quality monitoring activities identified in an area watershed plan designed to protect or improve water quality. This project is related to another Ketchikan ACWA project to inventory and map stormwater best management practices and together the two projects will provide a more complete picture of stormwater impacts to three Ketchikan watersheds. Three urban streams in Ketchikan, Alaska may be impacted by nonpoint source pollution, but insufficient water quality information exists to determine stream health. The Southeast Alaska Watershed Coalition and Ketchikan Indian Community environmental staff will monitor Ketchikan, Hoadley, and Carlanna Creeks for common urban stormwater pollutants, including dissolved metals, settleable solids, dissolved organic carbon, nutrients, bacteria, and in situ physiochemical data (pH, dissolved oxygen, specific conductance, turbidity, temperature). Twelve water quality sampling events will occur across two years and will encompass a variety of hydrologic stream conditions, including spring flow, summer base flow, and fall storm flow each year. Sampling for fecal bacteria will occur over two 30-day periods in both years, for a total of 24 bacteria sampling events. Sampling locations will include stream reaches upstream of urban development and downstream reaches more influenced by urban development to examine the effects of nonpoint source pollution to water quality and stream health. A final report summarizing the monitoring outcomes will be available on the DEC website at project conclusion.

Skagway Marine Beach Monitoring

Skagway Traditional Council, $80,395
Applicant Contact: Reuben Cash, (360) 296-9538

This project addresses a BEACH priority and will be conducted by the Skagway Traditional Council (STC). STC staff will conduct weekly bacteria monitoring for fecal coliform and enterococci at five recreational beaches in the Skagway area during the summer seasons of 2023 and 2024 and assist DEC in notifying the community if results exceed state allowed limits. The monitoring will help STC gain a better understanding of the safety of recreational waters and build the capacity to inform Tribal and municipal citizens of ways to better protect human health and the environment while also establishing a baseline of data for future comparisons. STC will conduct educational outreach events targeting residents and recreational users each year. A final report summarizing the monitoring outcomes will be available on the DEC website at project conclusion.

Southcentral Region

Alaska Clean Harbors Certification and Outreach

Alaska Sea Grant, $85,000
Applicant Contact: Tav Ammu, (907) 631-8361

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. Alaska Clean Harbors is a voluntary, non-regulatory program working throughout Alaska to help harbormasters, communities, and boaters prevent pollution and reduce waste in Alaska's harbors and waterways. The Alaska Clean Harbors program was recently reinvigorated through a pilot marine sewage outreach project supported by DEC and Alaska Sea Grant. This project will build on that work to focus on completing certification for currently "Pledged Clean Harbors" (Whittier, Dillingham, Kodiak, and Bethel), recertifying current "Certified Clean Harbors" (Juneau, Sitka, Haines, Seward, and Homer) as well as working with multiple harbors that have expressed interest but have not pledged or taken steps towards becoming become certified (Skagway, Cordova, and Petersburg). The project will design a tiered certification process that will allow for more harbors in Alaska to work towards becoming a "Certified Clean Harbor". Other project tasks include updating the Alaska Clean Harbors website and available outreach materials and participating in several outreach events in coastal communities throughout Alaska. A final report summarizing project activities will be available on the DEC website at project conclusion.

Chignik Subregional Watershed Plan

Chignik Bay Tribe, $67,582
Applicant Contact: Jeanette Carlson, (907) 740-4019

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. Watershed planning uses a holistic planning process to determine steps to take for water quality protection or improvement. The Chignik Bay Tribe will use a watershed planning approach to work with partners and community members to develop a Chignik subregional watershed plan. The plan will incorporate current projects (e.g., watershed maps already developed, Climate Resiliency Action Plan that will be finalized in January-February 2023, summary of stakeholder issues the Chignik Intertribal Coalition has drafted), identify actions to protect water quality, and tools for continuing and measuring progress towards meeting watershed goals. The final product will be a watershed plan that

protects water quality, habitat, and sets the stage for expanding the economy to support commercial fishing and other potential revenues to communities such as ecotourism. The watershed plan will be available on DEC's website at project conclusion.

Kodiak Marine Beach Pathogen Monitoring

Kodiak Area Native Association, $135,375
Applicant Contact: Tyler Kornelis, (907) 486-1393

This project addresses a BEACH priority and will be overseen by the Kodiak Area Native Association (KANA). Monitoring water quality at recreational beaches that are also traditional food sources aligns with KANA's mission to elevate the quality of life of the people that they serve. This project will collect nearshore marine water quality samples at four different locations across Kodiak Island and send them to a laboratory to be analyzed for fecal coliform and enterococci bacteria. Communities will be notified if results exceed state allowed limits. Three monitoring locations are along the Kodiak Road System and span approximately 11 miles of road. The fourth is in the Native Village of Old Harbor on the East Side of Kodiak Island. Sampling will occur throughout the 2023 and 2024 recreation seasons. Project partners include the Alutiiq Tribe of Old Harbor and the Sun'aq Tribe of Kodiak. Results will be analyzed, and KANA or partners will conduct an educational outreach event targeting residents and recreational users each year. The results will help inform and prioritize future actions to reduce pollution, directly benefiting the environment and public health. A final report summarizing the monitoring outcomes will be available on the DEC website at project conclusion.

Beluga Slough Stormwater Treatment System

City of Homer, up to $153,308
Applicant Contact: Jennifer Carroll, (907) 435-3101

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. The Beluga Slough Stormwater Treatment System designs and implements a large-scale low impact development/green infrastructure project to reduce nonpoint source pollution from Homer's largest stormwater drainage system before it discharges into the natural wetlands of Beluga Slough, and in turn into Kachemak Bay, a state designated Critical Habitat Area. A retention/filtration structure will capture runoff conveying suspended sediment, with peaks roughly estimated at 30 cubic feet per second. In addition to the green infrastructure installation, a gravel walkway will be removed reestablishing natural waterflow which provides additional habitat for native vegetation and filtration capabilities. A final report summarizing project activities will be available on the DEC website at project conclusion.

City of Seldovia Drainage Map and Stormwater Management Plan

City of Seldovia, $222,435
Applicant Contact: Jan Yaeger, (907) 234-7643

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. The City of Seldovia will complete a two-phase project with Phase One creating a drainage map of the community and conducting a drainage study that includes calculating stormwater design events and identifying types and quantities of nonpoint source pollution impacting local waterbodies. It will include inventorying City streets, storm drains, and culverts, with notes on condition and drainage issues related to each. In Phase Two, the drainage study will be used as the basis for developing a stormwater management plan. The stormwater management plan will include proposed methods and locations to detain water on the landscape for longer periods to allow for settling and to filter pollutants before the runoff reaches local streams and other waterbodies; recommended improvements and alterations to existing infrastructure; and considerations when planning future development. The project will result in better management of stormwater on the landscape and improve retention and filtration of sediments and other pollutants. This in turn will enhance water quality and protect habitat in Seldovia Bay and related anadromous waters in the Seldovia area. Reports from both phases will be available on the DEC website at project conclusion.

Kenai River Center Rain Garden

Kenai Peninsula Borough, $29,488
Applicant Contact: Samantha Lopez, (907) 714-2468

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. This project will design and install a rain garden to capture and treat stormwater runoff at the Kenai River Center in Soldotna, Alaska. Because of its location at the Kenai River Center, the rain garden will be highly visible and provide opportunity for the public to learn about low-impact development (LID) techniques that can be implemented at businesses or personal properties to reduce nonpoint source pollution, flooding, and negative effects of stormwater runoff to area waterways. The project includes several public outreach activities highlighting the benefits of green infrastructure. A final report summarizing project activities will be available on the DEC website at project conclusion.

Drainage Plan for Gravel Pit Clean Discharge and Drainage

Kenai Peninsula Borough, $43,350
Applicant Contact: Robert Ruffner, (907) 714-2201

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. Drainage issues associated with a material site and surrounding neighborhood in the Big Eddy area just outside of Soldotna, Alaska is a concern for the Kenai Peninsula Borough (KPB). This project will first work to understand and characterize both the groundwater and surface water components in the catchment area up-gradient of the material site of concern; then develop a drainage plan to better manage the water starting upgradient of the material site and as it moves both as surface water and groundwater onto another adjacent and down gradient material site and eventually into the Kenai River. The drainage plan will explore green infrastructure techniques such as vegetative bio-swales, infiltration basins, and settling ponds to protect and improve water quality. The final product will be engineered design options using applicable green infrastructure techniques to manage stormwater runoff. Permitting and construction of a selected design will be a subsequent phase. The final drainage and design options report will be available on the DEC website at project conclusion.

Lake Lucile Stormwater Management: Herning Knik Bioswale & Parks Highway Manholes

City of Wasilla, up to $225,000
Applicant Contact: Erich Schaal, (907) 373-9018

This project implements an area watershed plan and Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy designed to protect or improve water quality. This project will implement two actions identified in the Lake Lucile Management Plan to help improve Lake Lucile's water quality: A bioretention/infiltration swale on the southeast corner of Herning Avenue and Knik Street and retrofitting two manholes along the Parks Highway to allow higher volumes of stormwater to enter and be treated by the existing Iditapark stormwater treatment system. The swale will accept stormwater inflow via curb openings along both Herning Avenue and Knik Street. The engineered soil at the swale surface will be graded to promote distribution of surface flows throughout the facility. To maximize the treatment potential of the facility, water will also enter the swale below grade from an existing storm drain structure at the southwest corner of the Herning-Knik intersection. In coordination with the Alaska Department of Transportation and Public Facilities, the Parks Highway manhole improvement will retrofit two existing control manholes on the Parks Highway. The retrofit will either remove the control orifices completely or provide larger orifices to allow higher volumes of stormwater to be treated by the Iditapark stormwater treatment system instead of bypassing and flowing directly to Lake Lucile. A final report summarizing project activities will be available on the DEC website at project conclusion.

Cuddy Park Rain Garden

Municipality of Anchorage, up to $169,769
Applicant Contact: Jeffery Urbanus, (907) 343-8023

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. The purpose of this project is to design and construct a rain garden within Cuddy Midtown Park. The rain garden will treat stormwater runoff before it flows to Cuddy Pond and Fish Creek. Fish Creek is currently listed as an impaired waterbody for fecal coliform bacteria. Cuddy Pond, located in Cuddy Midtown Park, has had past water quality issues related to waterfowl, erosion, and stormwater runoff. It is anticipated that the construction of this rain garden will have a direct, positive impact on the water quality of Fish Creek by reducing the amount of untreated stormwater flowing directly into Cuddy Pond. A final report summarizing project activities will be available on the DEC website at project conclusion.

Interior-Northern Region

Watershed Characterization for Nome and Snake River Watersheds

Norton Bay Intertribal Watershed Council, $69,318
Applicant Contact: Harold Shepherd, (907) 491-1355

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. The Norton Bay Inter-Tribal Watershed Council (NBITWC) will complete the first

phase of watershed planning for Anvil, Dry, and Glacier Creeks, and the Nome and Snake Rivers located within the Nome and Snake River watersheds of Alaska by researching and compiling water quality information into an annotated bibliography. NBITWC will complete a watershed characterization that includes inventorying existing information and identifying data gaps, traditional environmental knowledge, evaluating current land use, identifying pollutants of concern, and conducting a source inventory and description of nonpoint source pollutants on Federal, state, and local government lands. The watershed characterization will be used by NBITWC to provide strategic guidance for the protection and sustainable management of water and subsistence resources, climate change adaptation, Tribal sovereignty, and environmental human rights in the Anvil, Dry and Glacier Creeks, and Nome and Snake Rivers. Information gathered as part of this project will be incorporated into regional planning documents such as the Norton Bay Watershed Ocean and Coastal Management Plan or into a stand-alone watershed protection plan. The final project report will be available on the DEC website at project conclusion.

Chena River Road Crossings Inventory, Prioritization, and Green Infrastructure Design

Tanana Valley Watershed Association, $51,800
Applicant Contact: Christy Everett, (907) 374-8890

This project implements an area watershed plan designed to protect or improve water quality. Tanana Valley Watershed Association (TVWA) will coordinate with the Fairbanks North Star Borough, FAST Planning, Alaska Department of Transportation and Public Facilities, the City of North Pole, and the City of Fairbanks to identify all impervious road crossings of the Chena River and its tributaries and will prioritize the crossings most likely to contribute stormwater runoff to these waterways. The prioritization criteria will include identifying existing stormwater mitigation, the amount of surrounding impervious surfaces, amount of traffic, slope of road bank and other pertinent factors. Preliminary green infrastructure designs to capture and treat the stormwater runoff will be completed on the top priority locations to be implemented in subsequent projects. TVWA will conduct outreach on the benefits of green infrastructure to the Fairbanks North Star Borough Assembly and City of Fairbanks and North Pole Councils. A final project report will be available on the DEC website at project conclusion.

Chena River Fairbanks Parks Pet Waste Reduction and Education

Tanana Valley Watershed Association, $54,000
Applicant Contact: Christy Everett, (907) 373-8890

This project implements an area watershed plan designed to protect or improve water quality by installing and maintaining pet waste bag stations at several public parks along the Chena River and Noyes Slough in Fairbanks, Alaska. The project will also install educational signage at the parks to provide outreach to pet owners and other park visitors about the adverse effects of pet waste on water quality and ways to keep the Chena watershed cleaner and safer for everyone. Project implementation is expected to significantly reduce the amount of dog waste in public parks and pedestrian walkways along the river, improve the park visitor experience, and protect water quality in the Chena River and Noyes Slough by reducing nonpoint source pollution. A final report summarizing project activities and effectiveness evaluation will be available on the DEC website at project conclusion.

Stormwater Drainage Study in North Pole

City of North Pole, $46,905
Applicant Contact: Robert (Danny) Wallace, (907) 488-8593

This project implements a priority identified in Alaska's Nonpoint Source Water Pollution Prevention and Restoration Strategy. The City of North Pole will conduct a two-phase drainage study of low-lying areas in North Pole. The first phase will include a Stormwater Drainage Study of the areas west of the Richardson Highway and the second phase will be a City-wide Drainage Integrity overview. The expected outcome of this project is a comprehensive stormwater drainage assessment with mitigation recommendations including green infrastructure options. Every spring, due to runoff during breakup, parts of the North Pole area experiences flooding that directly impacts housing, businesses, infrastructure, City facilities in the area, and threatens water quality in Thirtymile Slough. This project will evaluate drainage patterns that are leading to the annual stormwater flooding and will determine mitigation strategies to improve area drainage. The final drainage study report and mitigation options will be available on the DEC website at project conclusion.