# Alaska Department of Environmental Conservation



# **Alaska Clean Water Actions**

# Request for Proposals

State Fiscal Years 2021-2023

(March 2021 - February 2023)

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#### Introduction

The Alaska Clean Water Actions (ACWA) program, a collaboration between the Alaska Department of Environmental Conservation (DEC) and the Alaska Departments of Fish and Game (DF&G) and Natural Resources (DNR), works to set priorities for water quality, habitat, and quantity issues. This Request for Proposals (RFP) contains the requested Actions for the 2021-2023 ACWA grants.

These Actions will help Alaska meet its milestones under the <u>2021-2025 Nonpoint Source (NPS) Strategy</u>. The overarching goal of the NPS Strategy is to protect and restore Alaska's water quality from the harmful effects of nonpoint source pollution. For more information see the <u>ACWA RFP webpage</u>.

#### **RFP** Action Categories

Proposals are requested for projects in the following Action categories:

Action Category	Eligible Statewide	Priority Waters*
1. Restoration and implementation of BMPs	Yes	Lake Lucile; Wasilla Creek; Chester Creek; Kenai River; Anchor River; Jordan Creek; Playground Creek
2. Watershed planning	Yes	Wasilla Creek; Eyak Lake
3. Public outreach and education	Yes	Goldstream Creek; Crooked Creek; Lake Lucile; Ninilchik; Noyes Slough
4. Monitoring for nonpoint source pollution and/or BMP effectiveness	No	Salcha River; Little Susitna River; Kenai River; Cottonwood Creek
5. Marine BEACH pathogen monitoring	No	Kenai; Ketchikan; Hoonah
<b>6.</b> Special projects	Yes	Anchorage waterbodies; Statewide boating

<sup>\*</sup>Proposals for projects on specific eligible priority waters in this table will receive additional points in the review process.

Contact the staff person listed below or in the following action descriptions in order to get specific details on the work requested so that your proposal has the best chance of being funded.

#### **Project Timing**

This request for proposals covers a two year period and spans three state fiscal years. Projects may be implemented beginning on or near March 1, 2021 and must be completed by February 28, 2023. Projects may end prior to February 28, 2023, but cannot go beyond that date.

- SFY 21 (March 1, 2021 June 30, 2021)
- SFY 22 (July 1, 2021 June 30, 2022)
- SFY 23 (July 1, 2022 February 28, 2023).

#### How to Apply

All project proposals must go through our online application using a myAlaska account. The application package includes proposal work plan templates for each of the Action categories to describe tasks and deliverables and a Budget Spreadsheet template for estimated expenses. Workplan and Budget template links can be found on the <u>ACWA RFP webpage</u> and/or in the online application. Use the appropriate workplan template for your proposal Action category. As instructed on the Budget template, please prepare separate budget estimates for each State fiscal year as needed.

#### Deadline

All applications must be submitted online by 5:00 PM on November 9, 2020.

#### **Application Appendices**

Additional information on eligibility, required matching funds and other important grant information may be found in the following appendices online or in the application.

- A. Grant requirements
- B. Administrative guidelines and other grant conditions
- C. Budget Guidance
- D. Estimated Funding Sources

#### **Staff Contacts**

Department of Environmental Conservation				
Morgan Brown	907-451-2141	morgan.brown@alaska.gov	Northern, Interior	
Laura Eldred	907-376-1855	laura.eldred@alaska.gov	Mat-Su, Western	
Sarah Apsens	907-262-3411	sarah.apsens@alaska.gov	Kenai and BEACH	
Amber Bethe	907-269-7955	amber.bethe@alaska.gov	Anchorage	
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Department of Natural Resources				
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#### Acronyms

ACWA Alaska Clean Water Actions

AWQMS Ambient Water Quality Monitoring System

BEACH Beaches Environmental Assessment and Costal Health

BMP Best Management Practice
CFR Code of Federal Regulations

CWA Clean Water Act

DBE Disadvantaged Business Enterprise

DEC Department of Environmental Conservation

DF&G Department of Fish and Game
DNR Department of Natural Resources
EPA Environmental Protection Agency

FFY Federal Fiscal Year
FSR Financial Status Report
GI Green Infrastructure

LID Low Impact Development

MBE/WBE Minority/Women's Business Enterprise

MST Microbial Source Tracking

NPS Nonpoint Source

OASys Division of Water's Online Application System

OMB Office of Management and Budget

ORV Off-road Vehicle

QAPP Quality Assurance Project Plan

RFP Request for Proposals
SFY State Fiscal Year

TMDL Total Maximum Daily Load

WQS Water Quality Standards at 18 AAC 70

## 1. Restoration and implementation of BMPs

#### **Action Description**

Proposals for this action may include one or more of the following:

**A. Planning:** Identify areas within the community that would receive the highest benefit from low impact development (LID) techniques such as green infrastructure projects. This includes those areas most at risk from current and past development patterns and those of highest environmental value (e.g., salmon streams).

#### B. On-the-ground projects:

- 1. *Design:* Complete a design of a green infrastructure (or other low-impact development best management practice) project. Projects may range from re-design of existing gray infrastructure to a community-specific design book for green streets and parking lots. Design should include a calculation of the environmental benefit (e.g., amount of reduced stormwater run-off).
- 2. Construction: Construct one or both of the following:
  - a. Demonstration project that includes an educational component. The project will allow for a permanent opportunity for local citizens, including elected officials, to see first-hand the value of implementing green infrastructure. The project should be designed to encourage local officials to require LID/green infrastructure (i.e., through adoption in local land use codes).
  - b. Large-scale LID/green infrastructure project. Applications should include an estimate of the amount of stormwater retained and sediment reduced on-site and a commitment from the landowner to maintain the project.
- 3. Maintain: All constructed projects must have a maintenance agreement as a deliverable.

**C. New ordinances:** Develop draft ordinance(s) to protect water quality (e.g., draft set back or riparian protection ordinance language; LID inclusion in land use codes) for adoption by local governments. <u>To be eligible for funding, the grant proposal must include project partners (including local planners) to help develop the draft ordinance.</u> The applicant must present the completed draft ordinance to local planning board/commission or other city/borough decision-making body.

#### **Eligible Waterbodies**

Waterbody Name (Location)	Action Description	Contact
Statewide (Any)	Proposals will be accepted for additional waterbodies or regions in this Action Category but will not receive additional points during scoring.	Regional contact
Chester Creek (Anchorage)	Work with Anchorage Municipality, landowners and other partners to design and install a small scale stormwater green infrastructure project on Chester Creek.	Amber Bethe 269-7955
Jordan Creek (Juneau)	Work with City/Borough of Juneau, landowners and other partners to design and install at least two stormwater BMPs (with educational outreach) as described in the Jordan Creek Watershed Management Plan (contact for most recent version).	Gretchen Augat 465-5023
Kenai River (Kenai)	Work with local government entities to identify and map stormwater infrastructure, stormwater flow, and existing	Sarah Apsens 262-3411

	green infrastructure. Identify high priority sites for future	
	instillation of green infrastructure. Project may also include	
	design and installation of a green infrastructure project. See	
	the City of Homer green infrastructure planning project for	
	an example deliverable: Homer GI Project	
Anchor River	Identify, design, and implement a streambank restoration	Sarah Apsens
(Kenai)	project along the heavily trafficked lower section of Anchor	262-3411
,	River.	
Lake Lucile (Wasilla)	Work with the City of Wasilla Public Works and other	Laura Eldred
,	partners as needed, to design and install one of the identified	376-1855
	stormwater BMPs as described in the <u>City of Wasilla's Lake</u>	
	Lucile Lake Management Plan.	
Playground Creek	Work with City/Borough of Wrangell and other partners to	Gretchen Augat
(Wrangell)	design and install a stormwater BMP (with educational	465-5023
, ,	outreach), revegetate riparian native plants, and replace	
	and/or repair fish passage culverts as described in the	
	Wrangell Area Watersheds Assessment. Project may also	
	include water quality monitoring of field or basic chemistry	
	parameters as described in Action 4.	

Work plan Template – Restoration and implementation of BMPs Budget Template

## 2. Watershed Planning

#### **Action Description**

Watershed planning uses a holistic planning process to determine steps to take for water quality protection or improvement. As much as practicable, DEC recommends following all or part of EPA's 9-element watershed planning process (See: <u>EPA Watershed Planning page</u> and <u>EPA 9 Element Handbook</u>), although other watershed planning processes will also be eligible.

The watershed plan should document and evaluate options for reducing pollution including innovative approaches such as green infrastructure and other similar measures. Watershed planning proposals must include an implementable watershed plan as a project deliverable. If the watershed includes a surface water used by a public water system (PWS), the surface water source should be described and actions that protect the source water should be included. To review PWS source locations, please visit the <a href="Interactive Public Map">Interactive Public Map</a>. For more information on drinking water protection plans, please visit DEC's <a href="Drinking Water Endorsed Plans">Drinking Water Endorsed Plans</a>.

The plan (and planning process) should consider, but not be limited to:

- Partnership development
  - o Identification of key stakeholders
  - o Public involvement
- Watershed characterization
  - o Inventory existing information and identify data gaps
  - o Identify sources of pollution
  - o Estimate pollutant loads
- Discussion of goals and solutions
  - o Include work needed to implement each option (e.g., field assessments, new ordinances)
  - o Projected pollutant reductions and benefits to receiving waterbody
  - Other environmental and public health benefits associated with each option, including aesthetic appeal and community support
- Implementation plan and timeline
  - Rough cost estimates and potential funding sources
  - o Potential partners for implementation and long-term maintenance needs

#### **Eligible Waterbodies**

Waterbody	Action Description	Contact
Name		
Statewide (Any)	Proposals will be accepted for additional waterbodies or regions	Regional contact
	in this Action Category but will not receive additional points	
	during scoring.	
Eyak Lake	Eyak Lake is adjacent to the Copper River Delta and partially	Amber Bethe
(Cordova)	within the City of Cordova. The lake was previously listed as	269-7955
	impaired, and recently there have been other water quality	
	concerns. Developing a watershed plan will help clarify potential	
	water quality issues and prevent future pollution.	
Kenai River		Sarah Apsens
(Kenai)	Conduct a comprehensive gap analysis of existing management	262-3411

	plans for the Kenai River watershed. Determine actions needed to either supplement an existing plan(s), or develop a new watershed plan that follows the EPA's 9-element watershed planning process. Create a framework of action based on the findings of the gap analysis including a list of partners, action items, and timelines. Develop outreach activities to engage key stakeholders including, but not limited to: local governments, NGOs, and members of the public. The resulting plan(s) should document and evaluate stormwater management options for reducing the pollutants entering the Kenai River from stormwater discharges (i.e., structural, non-structural, retrofitting, etc.). Analysis must include review of the: DNR Kenai River Comprehensive Management Plan, KBP Coastal Management Plan, and KWF Kenai Peninsula Fish Habitat Partnership Strategic Plan.	
Wasilla Creek (Wasilla)	The Wasilla Creek watershed is one of the rapidly developing areas of the Matanuska-Susitna Borough. Headwaters are within	<u>Laura Eldred</u> 376-1855
	the Moose Range and are experiencing degraded water quality	
	from ORV trail crossings. Downstream urban and suburban	
	development is threatening water quality with polluted runoff.	
	Developing a watershed plan for Wasilla Creek now may prevent	
	it from becoming a polluted impaired waterbody.	

Work plan Template – Watershed Planning Budget Template

#### 3. Public education and outreach

#### **Action Description**

Educate the public on water quality and smart practices to prevent nonpoint source pollution. The proposed campaign must promote using "smart" practices to reduce nonpoint source water pollution, use several outreach mechanisms, and be designed to reach as many users as possible. Proposed outreach campaigns should focus on one or more of the following nonpoint source pollution issues (or waterbody specific issues in the table below):

**General nonpoint source:** Proposals will promote using best management practices such as green infrastructure for reduction of pollution from homes and businesses.

**Petroleum:** Proposals will promote using "clean boating" practices to reduce petroleum hydrocarbon pollution from recreational and personal use watercraft in Alaska's rivers and lakes.

**Bacteria (in nearshore waters):** Proposals will promote use of pump-outs to reduce sewage pollution in harbors by engaging recreational boaters, harbor staff, and harbormasters.

**Bacteria (residential septic systems):** Proposals will include content from EPA's Septic Smart (EPA Septic Smart page) to promote a statewide or regional campaign.

**Turbidity:** Proposals will focus on ways to increase the use of best management practices for water management to reduce turbidity coming from historic or current placer mining areas.

Proposed outreach campaigns must include <u>all</u> of the following components:

- **A. Planning:** Develop an outreach plan that includes the following components:
  - a. Goal(s)
  - b. Objectives
  - c. Key messages
  - d. Stakeholders and target audience(s)
  - e. Communication activities and tools (Any new outreach materials developed should use existing materials to the maximum extent possible).
  - f. Timeline for implementation
  - g. Measures of success (such as the number of people reached and whether the outreach has impacted their actions)
- **B.** Implementation: Use several outreach mechanisms and be designed to reach as users as possible.
  - a. Provide education on the impacts of pollution to waterbody health and on ways to reduce this pollution.
  - b. Participate in area sport or home shows or other public venue (where available/applicable) with a staffed outreach booth to reach target audience.
  - c. Demonstrate measureable results and include follow up activity with the public to reinforce the message.
- **C. Final Report:** Include a final project report that describes the outreach activities that took place, public response and an evaluation of success of the messaging in reaching the target audience and affecting a desired behavior change (e.g. not dumping marine sewage near shore). The report should also include recommendations for future effective outreach activities.

#### Eligible Waterbodies

Waterbody Name	Action Description	Contact
Statewide (Any)	Proposals will be accepted for additional waterbodies or regions in this Action Category but will not receive additional points during scoring.	Regional contact
Goldstream Creek and Crooked Creek (Fairbanks and Central)	The Goldstream and Crooked Creek watersheds are both impacted by historic and current placer mining and have Total Maximum Daily Loads (TMDLs) to address turbidity impairments. (Goldstream TMDL and Crooked Creek TMDL). Proposed outreach campaigns should focus on reduction of turbidity pollution and improved water quality through implementation of BMPs. Contact for a copy of DEC's Best Management Practices for Placer Mines document.	Morgan Brown 451-2141
Lake Lucile (Wasilla)	Design and install signage related to stormwater BMPs, pollutant reduction, and Lake Lucile's water quality ( <u>Lake Lucile Lake Management Plan</u> ). Multiple signs could be developed and installed throughout the Wasilla area including but not limited to the Public Boat Launch, Lake Lucile Park, and the Iditapark stormwater pond and trail areas. Proposals must include planning, design, installation tasks, and include appropriate partners.	<u>Laura Eldred</u> 376-1855
Noyes Slough (Fairbanks)	A TMDL for residues (debris/trash) was completed for Noyes Slough in 2008 (Noyes TMDL). In 2016-2017, the Tanana Valley Watershed Association conducted a trash assessment of the slough and provided suggestions for reductions (contact for a copy of the report). This project will implement a targeted educational campaign and work with businesses and residents with properties adjacent to the slough to reduce the amount of trash reaching the slough. The project will include measures of success.	Morgan Brown 451-2141

Work plan Template – Public education and outreach Budget Template

# 4. Monitoring for nonpoint source pollution and/or BMP effectiveness

#### **Action Description**

Monitoring projects are waterbody specific and must be designed to meet DEC's data objectives. Applicants are encouraged to work with DEC on the sampling design, timing, and parameters. See the <u>DEC Integrated</u> Report page for information on assessment and listing methodologies and requirements.

Proposals for this Action should include the following:

**A. Planning:** Develop a Sample Plan and Quality Assurance Project Plan (QAPP) for approval by DEC (contact for examples).

**B. Monitoring**: Conduct ambient water quality monitoring to evaluate NPS pollution or BMP effectiveness. The following parameters <u>may</u> be required (see Action Description in table below for project specific parameters):

Water Column (Field)*	Water Column (L	aboratory)	Sediment (Laboratory)
<ul> <li>Turbidity (SM 20 2130B)</li> <li>Specific conductance (SM 2510)</li> <li>Temperature (EPA 170.1)</li> <li>Dissolved oxygen (1003-8-2009)</li> <li>pH (SM 4500-H+)</li> </ul>	<ul> <li>Basic Chemistry</li> <li>Dissolved organic carbon (SM 5310B)</li> <li>Settleable Solids (EPA 160.5)</li> <li>Total solids (SM 2540G)</li> <li>Ammonia-N (EPA 350.1)</li> <li>Total nitrate and nitrite-N (EPA 353.2)</li> <li>Hardness (EPA 200.7)</li> <li>Major cations – Ca, Mg, Na (EPA 200.7), total and dissolved K (SM 4500)</li> <li>Major anions – SO4, Cl (EPA 375, 325)</li> <li>Alkalinity (SM 2320B)</li> <li>Sulfide ((EPA 376)</li> <li>Dissolved metals (EPA 200.8)</li> </ul>	• Fecal coliform (SM 9222-D by membrane filtration) • E. Coli (SM 9223B) • Microbial Source Tracking (qPCR)  Petroleum Products • Total Aromatic Hydrocarbons (TAH)(EPA Method 624) • Total Aqueous Hydrocarbons (TAqH) (EPA Method 624) • Polycyclic Aromatic Hydrocarbons (PAH) (EPA Method 624)	<ul> <li>Total metals (EPA 6010D)</li> <li>Polycyclic Aromatic Hydrocarbons (PAH) (EPA 8270-SIM)</li> </ul>

<sup>\*</sup>Continuous or grab samples, see Action description and contact appropriate staff person for details.

- **C. Reporting**: The grantee will analyze all samples, evaluate results, and prepare a draft and final report of findings and conclusions.
- **D. Data submission:** The grantee is responsible for ensuring data collected is provided in a format that can be easily transferred to DEC's water quality database (AWQMS). DEC will provide the grantee with the needed data template for AWQMS and guidance on how to use the template. The grantee should budget

time to become proficient in the use of the reporting data template.

#### Eligible Waterbodies

The priority waters listed in the table below will be eligible for additional points.

Waterbody Name	Action Description	Contact
Statewide (NONE)	Proposals <u>will not</u> be accepted for additional waterbodies or regions in this Action Category.	
Cottonwood Creek (Wasilla)	Since Cottonwood Creek was listed as impaired due to excessive fecal coliform bacteria pollution (Cottonwood TMDL), DEC has funded several BMP projects in the watershed. This project will collect water samples to determine if water quality is improving. Project must include analysis for all Field parameters (grab or in-situ measurements), Bacteria (including MST), Basic Chemistry, and Sediment PAH.	Laura Eldred 376-1855
Kenai River (Kenai)	Conduct a monitoring project focused on analysis of dissolved metals Zn and Cu and associated hardness to supplement on-going multi-agency baseline monitoring efforts on the Kenai River (Kenai Watershed Forum). Monitoring must include water column laboratory analyses for the parameters of concern (dissolved metals Zn and Cu) and associated hardness, but may also include additional analyses for any of the Basic Chemistry parameters listed above. Projects may include sampling major tributaries to the Kenai River in addition to mainstem sites. The final product should include analysis of current data in context of historic monitoring work.	Sarah Apsens 262-3411
Little Susitna River (Mat-Su)	A portion (8.5 miles) of the Little Susitna River was listed as water quality impaired for excessive turbidity in the 2014/16 Integrated Report. Since the initial water quality monitoring occurred, fishing and boating patterns have changed dramatically on the river. Turbidity monitoring was initiated July – September 2020 to determine if water quality is improving. This project will requires collection of additional continuous turbidity data throughout the summer months in 2021.	<u>Laura Eldred</u> 376-1855
Salcha River (Fairbanks)	A GIS based Watershed Resource Action Planning effort was initiated in 2019 by the Tanana Valley Watershed Association (Salcha WRAP). During the planning process, a lack of water quality data was identified. This project will collect screening level water quality data to establish a baseline and to determine if future (more intensive) monitoring is recommended. This project requires water column grab sample or in-situ measurements for all of the field parameters above at least once monthly during the summer. Proposals may also include some or all of the Basic Chemistry parameters.	Morgan Brown 451-2141

#### Templates to use:

Work plan Template – Monitoring of nonpoint source pollution and/or BMP effectiveness Budget Template

## 5. Marine BEACH pathogen monitoring

To be considered for BEACH program funding, proposals <u>must</u> demonstrate local government support and involvement.

#### **Action Description**

The proposal for this Action should include the following tasks and deliverables:

- A. **Planning**: Review and apply the DEC Beach Sampling Plan and Quality Assurance Project Plan (QAPP) and Beach Monitoring Handbook. QAPPs and Handbook will be provided by DEC prior to beginning monitoring.
- B. **Monitoring**: Conduct marine water quality monitoring during recreational use season for bacteria at recreational beaches.
  - 1. Collect marine water samples for fecal coliform bacteria and enterococci using the DEC-approved OAPP.
  - 2. Submit samples for analytical testing to a DEC-approved laboratory.
  - 3. Design beach sampling program from mid-May through mid-September.
  - 4. Complete the EPA Marine Beach Sanitary Survey (Survey 123 app), chain-of-custody forms, and site photos at each monitoring location for each monitoring event.
  - 5. Conduct sampling for Microbial Source Tracking (MST) once during the recreational beach monitoring season.
- C. **Notify:** Deliver monitoring results to DEC within 4 hours of lab result receipt. If confirmed exceedance, assist DEC with beach advisory notifications.
- D. **Outreach**: Conduct educational outreach event to communicate the beach program prior to recreational season, and beach results and findings following the recreational season.
- E. Reporting:
  - 1. Following each sampling event, deliverables include analytical data, sanitary surveys, chain-of-custody forms, and site photos.
  - 2. Analyze all samples, evaluate results, and prepare a draft and final report of findings and conclusions. Report design should follow the Beach Monitoring reports (<a href="https://beaches.alaska.gov">https://beaches.alaska.gov</a>).
- F. **Data Submission:** Insert all monitoring data into DEC-provided template for submission into DEC's water quality database (AWQMS).

#### Eligible Waterbodies

Waterbody Name	Action Description	Contact
(Location)		
Statewide	Proposals will not be accepted for additional waterbodies or	
(NONE)	regions in this Action Category.	
Hoonah beaches	Monitor two beaches (Icey Straight Point and Gartina Harbor	<u>Gretchen</u>
(Hoonah)	Way) weekly during the 2021 and 2022 recreation seasons for	<u>Augat</u>
	fecal coliform and enterococci bacteria; conduct one microbial	465-5023
	source tracking sampling event per season. Prepare final reports	
	at the end of each season. Conduct two educational outreach	
	events per year (start and end of season).	

Kenai beaches (Kenai)	Monitor five beaches (Kenai North and South beaches and three reference sites) for enterococci and fecal coliform bacteria every other week during the 2021 recreation season. Prepare final report at the end of the season. Aid in evaluating use of EPA's Virtual Beach Model. Conduct at least one outreach event targeted towards beach users.	Sarah Apsens 262-3411
Ketchikan beaches (Ketchikan)	Monitor 12 Ketchikan beaches every other week during the 2021 recreation season for fecal coliform and enterococci bacteria. Prepare final report including a comparison of data from 2017-2021. Aid in evaluating use of EPA's Virtual Beach model. Conduct at least one outreach event at the end of the season.	Gretchen Augat 465-5023

Work plan Template – Beach program Budget Template

## 6. Special Projects

#### **Anchorage Water Quality Data Inventory**

Contact: Amber Bethe, 269-7955

Conduct an inventory of information, evaluate, and prepare existing water quality data for inclusion into DEC's water quality data repository, the Ambient Water Quality Monitoring System (AWQMS).

The proposal for this Action should include the following:

- A. **Inventory:** Include a review of published reports & data, and solicitation of information from local governments and organizations, universities, State and Federal agencies, tribes, and others. As part of the inventory, review the quality of data and only evaluate data meeting minimum QA standards.
- B. **Prepare Data:** For existing raw water quality data, the grantee is responsible for providing in a format that can be easily transferred to DEC's water quality database (AWQMS). DEC will work with the grantee to develop data templates for AWQMS.
- C. **Evaluation:** The applicant will compile all information and prepare a draft and final report. Based on the data evaluation, the report should include a summary of data, identification of data gaps, and recommendations for future data collection. The report must also include an annotated bibliography with summaries of all data sources (including unpublished information and personal communications).

#### Templates to use:

Work plan Template – Special projects Budget Template

#### Statewide Boating Sewage Survey and Outreach

Contact: Sarah Apsens, 262-3411

Build on previous grantee work to encourage compliance with existing laws and regulations regarding discharging swage waste from vessels within Alaskan waters to reduce nonpoint source pollution. Contact for copies of previous reports.

The proposal for this Action should include:

- **A.** Outreach Campaign: Although several harbors in Alaska have pump-out stations, not all vessels use this option for sewage disposal. Develop and implement an outreach plan to encourage use of these and other preferred options. This may include radio, television or print materials. Work with harbors to post materials in/around harbors that have pump-outs to increase use. Timing: The majority of this work will occur in FY21 and be completed by June 30, 2021.
- B. **Survey:** Design and conduct two surveys. Develop a survey protocol outlining the objectives, audiences, delivery methods, and survey questions for each survey for approval by DEC. The majority of this work will occur in FY21 and be completed by June 30, 2021.
  - a. Conduct a survey of vessels owners in Alaska to determine current sewage handling practices, factors needed to utilize more environmental responsible practices, and which

- options are viable or desirable. This survey will target personal and commercial vessels owners throughout the state.
- b. Conduct a second survey of harbormasters and harbor staff to determine current pump-out use, infrastructure needs, and potential barriers to pump-out use.
- **C. Report:** Complete a report summarizing survey responses which includes an evaluation of behavioral and infrastructure barriers to pump-out use. The majority of this work will occur in FY21 and be completed by June 30, 2021.
- D. Pilot Project: Develop a pilot project using the results of the surveys. One harbor or concentrated boating area will be selected to implement an approach identified in the surveys. This may include incentives to use existing facilities, development of new facilities, encourage enforcement activities, conduct a targeted outreach campaign during high use, or other approaches not yet identified. Work closely with DEC to identify the location and approach. The majority of this work will occur in FY22 and be completed by June 30, 2022.

Work plan Template – Special projects Budget Template