ALASKA CAPACITY DEVELOPMENT STRATEGY

STATE OF ALASKA'S STRATEGY FOR IMPROVING THE TECHNICAL, MANAGERIAL, AND FINANCIAL CAPACITY OF PUBLIC DRINKING WATER SYSTEMS DECEMBER 2022



Water Plant in Anaktuvuk, Alaska

Alaska Department of Environmental Conservation, Division of Water, Facilities Programs

Contents

Introduction	3
Public Water System Categorization	4
Methods and Criteria for Assessing Capacity	7
Program Initiatives Designed to Improve Capacity1	0
Capacity Development Coordination1	5
Asset Management	9
Measuring Success	1
Reporting2	1
Appendix A: State of Alaska Organization Chart as it Relates to Capacity Development22	2
Appendix B: Best Practices Scoring Criteria2	3
Appendix C: Capacity Assessment Worksheet24	4
Appendix D: Stakeholders, Connections, and Partnerships2	7

Introduction

This document represents the current Alaska Capacity Development Strategy (Strategy), including the elements considered under Section 120(c) of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300g–9(c), and is reflective of agency and regulatory changes, an expanded Alaska Capacity Development Program, and staff experienced in capacity development initiatives. This Strategy modifies Alaska's 2013 Capacity Development Strategy and 2020 Interim Strategy in accordance with America's Water Infrastructure Act of 2018 (AWIA 2018) with the following key updates:

- Preliminary efforts to develop an approach to enhance system capacity by promoting asset management; and
- Ongoing stakeholder engagement efforts.

The State of Alaska Department of Environmental Conservation (ADEC) continues to prioritize small systems and supports efforts to bring systems with violations into compliance in concurrence with earlier versions of the Strategy.

This document will be used as a blueprint for executing the Strategy and will continue to refine efforts statewide in response to stakeholder feedback and lessons learned.

Alaska Capacity Development Program

ADEC is the State's primacy agency for implementing and enforcing the SDWA. In the 1996 SDWA Amendments, Congress required state drinking water primacy programs to prevent the creation of new nonviable community and nontransient noncommunity water systems and to develop a strategy to address the capacity of all existing water systems. Capacity refers to the capabilities required of a public water system (PWS) to achieve and maintain compliance with the national primary drinking water regulations. The three elements of capacity – technical, managerial, and financial – are typically referred to as "TMF" and are defined as:

- Technical capacity refers to the ability of the water system to meet standards of engineering and structural integrity necessary to meet customer needs. Additionally, technical capacity includes the operator's aptitude for obtaining proper certification and applying the necessary knowledge and skills to safely operate and maintain the system. Technically capable water systems are constructed, operated, and maintained according to accepted standards.
- *Managerial capacity* refers to the ability of the management structure to effectively maintain the operation of the water system, including ownership accountability, staffing and organization, and effective external linkages.
- *Financial capacity* refers to the ability of the water system to raise and properly manage the money it needs to operate effectively over the long term.

In 1999 and 2000, a Citizen Advisory Board (CAB) was convened to advise ADEC on challenges and opportunities to improve the technical, managerial, and financial capabilities of Alaska's public water systems. A Report of Findings (ROF) (2000) presented the results of these meetings and summarized 14 recommendations to improve and support TMF capabilities. The ADEC Drinking Water (DW) Program finalized the Alaska Capacity Development Strategy in 2000, based on the ROF, public input, state and federal requirements, and departmental resources.

Historically, the DW Program was responsible for implementing capacity development. Since 2017, the Technical Assistance (TA) Program within the ADEC Division of Water has administered the Capacity Development (CapDev) Program, along with two other capacity building programs: the Remote Maintenance Worker and Operator Certification Programs. The Capacity Development Program is comprised of a Program Manager and two Environmental Program Specialists.

While the CapDev Program is responsible for maintaining and executing the Strategy, many different State of Alaska (State) programs, as well as external partners, have a hand in its implementation. See Appendix A for an overview of the State's organizational structure and programs primarily involved with this effort.

Legal Authority

Alaska Statutes AS 42.05.711, AS 46.03.020, 46.03.036, 46.03.039, and AS 46.03.720 establish the State's authority related to public drinking water systems. Additionally, regulations in the Alaska Administrative Code provide the State with sufficient authority to ensure existing water systems are working towards acquiring and maintaining technical, managerial, and financial capacity, including Regulatory Commission of Alaska regulations, 3 AAC 52.700 – 749; Water and Wastewater Operator Certification and Training regulations, 18 AAC 74; Alaska Clean Water and Drinking Water Revolving Fund regulations, 18 AAC 76; and Drinking Water regulations, 18 AAC 80.

Public Water System Categorization

As a first step in updating the Strategy, a review of the current landscape of Alaska's PWSs was conducted to better understand where assistance can be most effectively targeted. There are currently 1,356 PWSs in the state. These systems have been organized into six categories as defined in Table 1.

Table 1. Category structure for Public Water Systems				
System Category	System Type	Population served	Number of Systems	
Small Community	Public	< 1,000	354	
Midsized Community	Public	1,001 - 10,000	33	
Large	Any	10,001 - 100,000	4	
Extra Large	Any	> 100,001	1	
Private	Private	< 10,000	882	
Government	Government	< 10,000	82	

fan Dulalia Matata



Figure 1. Alaska Water Systems by Category Type.

Small Community Systems

There are 354 small community systems in Alaska. These systems receive a significant amount of technical assistance from the State, as well as federal funding agencies such as the Indian Health Service, EPA, and USDA Rural Development.

Small communities face significant difficulty in maintaining their water system infrastructure and responding to new rules because of the size of the population served. A small customer base often results in a lack of revenue needed to hire and retain experienced managers and operators, and to adequately maintain and upgrade their drinking water systems. Compounding this issue, many systems are in rural areas of the state and experience the increased costs of living associated with limited accessibility. A smaller pool of qualified and trained individuals to work in the system and high turnover rates among all positions critical to the success of a water system further exacerbate the capacity issues faced by small community systems.

Midsized Community, Large, and Extra-Large Systems

There are 33 midsized community systems and four large systems in Alaska. These systems receive less targeted technical assistance than small community systems. These systems have a greater ability to generate the revenue needed to support their TMF capabilities due to sufficient customer base.

The Municipality of Anchorage (MOA) is the only extra-large system in Alaska, with a population served of 221,351. This utility is self-sufficient and does not require extensive targeted technical assistance. Accordingly, future technical assistance endeavors may include midsized and large systems but will not specifically target the MOA.

Private and Government Systems

There are 882 private systems and 82 Federal or State government systems in Alaska. Over 98% of these systems serve a small population base (less than 1,000). As with small community systems, small private and government systems may have difficulty in maintaining infrastructure and retaining staff.

Additionally, in many instances, the water system exists solely to support a business or activity and the water system is not the primary area of focus for the owner. Frequently, the responsible party has little understanding of the need for long term care of the system. Given the size and predominance of private and government PWS types, the TA Program will continue to explore options for assisting these private and government systems in providing system appropriate capacity building.



Water Plant in Nondalton, Alaska

Methods and Criteria for Assessing Capacity

New Water System Assessments

ADEC conducts plan reviews for all new water systems, as well as proposed modifications to existing water systems. In all instances, the water system must submit design drawings stamped by a Professional Engineer registered in the State, as well as a capacity assessment form. Systems are required to demonstrate that personnel, source water quality and availability, design plans, and treatment systems provide sufficient technical capacity. A Certificate of Public Convenience and Necessity for Regulatory Commission of Alaska (RCA) regulated utilities, or detailed business plans and ADEC assessment forms, including managerial contacts, ownership, staffing, and effective linkage information are required to demonstrate financial and managerial capacity.

The review of submissions is a collaborative effort between the DW and CapDev programs. The DW Program's engineering staff review the plans to ensure they are sound, provide adequate treatment, and comply with regulatory requirements. The CapDev Program evaluates the financial and managerial capacity and works with the OpCert Program to confirm operator certification information. Per Alaska Statute §46.03.720(b) and 18 AAC 80.207, an Approval to Construct will not be issued until an applicant demonstrates adequate TMF capacity.

Operations and Maintenance Best Practice Scoring

ADEC Facilities Programs, comprised of Village Safe Water (VSW), State Revolving Fund (SRF), and TA programs, in collaboration with the Rural Utility Business Advisor (RUBA) Program and the Alaska Native Tribal Health Consortium (ANTHC) have developed criteria for assessing the capacity of rural water and wastewater utilities.

The criteria, referred to as Operations and Maintenance Best Practices (Best Practices), have been used to determine eligibility and prioritization for community sanitation project funding through the VSW Capital Improvement Project program since mid-2015. Rural utilities are evaluated twice per year in each TMF category (see Appendix B).

Technical:

- Operator Certification The OpCert Program reviews the certification status of utility operators to determine whether certification levels match or exceed the classification of the water system.
- Preventative Maintenance Plan The RMW Program determines whether a utility has a preventative maintenance plan in place and if routine maintenance is occurring and recorded.
- Compliance The DW Program reviews the number of monitoring and reporting violations incurred by each system during the previous calendar year.

Managerial:

- Utility Management Training The RUBA Program reviews whether someone in a management position with the utility has attended an approved utility management course within the last five years.
- Meetings of the Governing Body The RUBA Program reviews whether the utility operator regularly presents a report on the status of the utility to the governing body.

Financial:

- Budget The RUBA Program determines whether a utility has a realistic budget adopted and if it is being implemented.
- Revenue The RUBA Program determines whether a utility is collecting sufficient revenue.
- Worker's Compensation Insurance The RUBA Program reviews whether a utility has a worker's compensation policy in place for employees.
- Payroll Liability Compliance The RUBA Program reviews the utility's tax obligations and liabilities.

Each of these nine criteria is evaluated and scored using the criteria included in Appendix B for a total possible score of 100 points.

Communities work collaboratively with ADEC and RUBA staff to provide the documentation required for Best Practices scoring. Community members are encouraged to actively work with RMWs, RUBA staff, and others to build and maintain capacity, as reflected by the Best Practices score. Following the evaluations, ADEC sends each community a report containing their current score and posts the reports online. A number of resources are available on the ADEC website, such as sample preventative maintenance plans and financial reports, and operator training opportunities. Additionally, assistance with QuickBooks, management and financial training, and the new online Best Practices Toolkit and Dashboard are offered via the RUBA Program to assist utilities in building capacity.

Technical assistance providers statewide use the Best Practices score to prioritize capacity building efforts. This tool can be used to identify areas for improvement, ranging across all TMF categories.

Capital Improvement Project Funding

The VSW Program administers a Capital Improvement Project (CIP) program that funds the planning, design, and construction of sanitation improvements in rural Alaskan communities. Prior to construction, recipients of CIP grant funding are required to demonstrate sufficient TMF capacity to operate and maintain their sanitation system in the long term. As discussed above, the Best Practices scoring criteria were implemented in 2015 as a method of evaluating capacity. A minimum score must be achieved and maintained to receive CIP construction funding.

ADEC anticipates that there will be communities that do not meet the Best Practices threshold that wish to apply for future CIP construction funding. ADEC will continue to work collaboratively with other technical assistance providers to identify and support these communities in building and demonstrating the capacity required to be eligible for project funding.

Once a community project is identified for CIP funding, the community is responsible for developing and submitting a Business Plan for review and approval by VSW. The Business Plan must establish the financial and managerial structure of the utility, as well as the basic plan of operations and maintenance. Construction funding is not released until the community's Business Plan is approved by VSW and formally adopted by the community through a resolution. This effort is intended to ensure that the community is aware of, and prepared for, the obligation they are assuming upon completion of the funded project.

Drinking Water State Revolving Fund Loan Assessments

The SDWA Amendments of 1996 allowed states to establish a Drinking Water State Revolving Fund (DWSRF) program to assist public water system owners with financing infrastructure upgrades needed

to protect public health and achieve and maintain compliance with SDWA requirements. The DWSRF authorizes grants to states to capitalize revolving loan funds and provide assistance to disadvantaged communities, which may include forgiveness of loan principal.

ADEC uses DWSRF loans to assist eligible public water system owners with planning, design, and construction of infrastructure improvements. System owners submit a project questionnaire which serves as a letter of interest, which ADEC staff from various programs collaboratively and cooperatively review, score, and rank water system projects for funding.

To receive loan fund assistance, a utility must demonstrate sufficient TMF capacity to operate the system in compliance with state and federal regulations. Prospective borrowers are required to complete a Capacity Assessment Worksheet (see Appendix C) as part of their loan application process. Additionally, the SRF Program conducts a Financial Capacity Assessment prior to extending a loan offer. A full-time Local Government Specialist position is on staff to review the Capacity Assessment Worksheet and conduct the Financial Capacity Assessments. If a utility cannot demonstrate sufficient capacity, ADEC and other technical assistance providers may prioritize assistance to help them achieve capacity in a reasonable time.

Rural municipalities may also be eligible to receive a low interest Micro Loan of up to \$500,000 with a repayment term of up to 30 years and up to 90% principal forgiveness. The level of principal forgiveness depends on the community's Best Practice score and the affordability of the community's utility rates.

Sanitary Surveys

Sanitary surveys are required for PWSs every 3 or 5 years, depending on the system category. The survey covers all aspects of the system, including all water sources, the transmission system, each individual water treatment process utilized at the facility, and the water storage and distribution system. These inspections are completed by ADEC-Approved Sanitary Survey Inspectors, including DW Program staff and third-party Sanitary Survey Inspectors who are approved by ADEC but not employed by the State.

Depending on the complexity of the public water system, the survey can easily exceed 300 questions and includes information specific to TMF capacity. Any deficiencies of the water source(s), facilities, equipment, operation, maintenance, or monitoring requirements are documented during the inspection. The survey includes questions regarding potential health hazards that may be found during the inspections. The DW Program establishes corrective action requirements for identified deficiencies and tracks the system's progress in making necessary improvements. Systems with sanitary survey deficiencies are prioritized for capacity assistance.

Sanitary survey inspections help PWSs strengthen their operational and managerial processes, as well as identify potential infrastructure concerns that may be addressed with an asset management plan. Inspections identify obstacles that prevent systems from doing their best to provide safe drinking water to their customers; provide operator education, technical assistance, and training; increase communication between the PWS staff and DW Program; and identify deficiencies, thereby reducing risks to public health.

Enforcement Targeting Tool (ETT)

The Enforcement Targeting Tool (ETT) tracks PWSs that are deemed by EPA to be significantly out of compliance with the SDWA regulations. This list is generated quarterly by EPA based on the PWS

information transferred to them from the DW Program database. The ETT displays a total score based on the violations received by PWSs which have not been returned to compliance. The EPA has assigned a point value to each violation, with a higher weight placed on health-based violations.

The DW Program utilizes the EPA's quarterly ETT as an indicator of capacity and focuses attention on those PWSs that, based on the severity and frequency of their violations, are defined as significantly out of compliance. Currently, the DW Program and other technical assistance providers work with communities that receive an ETT score of 11 or higher to determine what steps are needed to bring the systems back into compliance.



Larsen Bay, Alaska

Program Initiatives Designed to Improve Capacity

Capacity Development Program

The CapDev Program develops tools, reference guides, and training programs and coordinates capacity development activities statewide.

Welcome Packets for New Hires

The CapDev Program is developing informational packets for new rural community leaders and operators of their community water systems. These "Welcome Packets" are intended to be a convenient reference for new leaders and operators that informs them of their key responsibilities related to their public water system and provides contact information for staff from the various programs that aid communities. Once completed, the welcome packets will be posted as appropriate on State websites and binders will be sent to new community leaders and operators. Community Leader Welcome Packets will be provided to community leaders that attend the RUBA Elected Officials training, and when communities elect new officials during local elections. New Operator Welcome Packets will be provided to new operators that have attended operator trainings or when RMW staff conducts a site visit.

System-Specific Training and Certification

While many of Alaska's rural operators may be fully competent in maintaining and operating their utility, some find it challenging to pass the standardized operator certification exams. To address the issue of competent but uncertified operators, the CapDev Program is finalizing System-Specific Training and

Certification (S²TC) training materials. The S²TC effort involves the creation of training and exam modules for different treatment and distribution components of a PWS.

Once completed, these modules will serve as the basis for an alternative approach to certification exams that will only be available to operators who are effectively operating and maintaining a utility but have repeatedly failed traditional certification exams. Operators will be administered the training modules that apply to their specific system. Each module is intended to educate and test an operator on information that is specific to the technology used in their utility. These operators will be required to prepare and submit a facility description to ensure the correct training modules are provided. In these limited cases, successful completion of the S²TC modules applicable to the system will replace the requirement of passing the standard certification exam, and certification will be specific to that system. The training modules will also be made available as study materials for all operators.

Rural Community Calendars

To support rural communities and utilities, the CapDev Program, in coordination with the RMW Program, created a reference calendar as a resource for PWS staff. The calendar contains important reminders each month for the water plant, clerk, and bookkeeper staff, such as deadlines for sampling, preventative maintenance reports, taxes, etc. Each year, copies of the calendar are mailed out to rural communities, as well as to partnering agencies and technical assistance providers.

Operator Certification Program

The OpCert Program actively engages with operators to improve certification exam outcomes.

Guidebooks and Exam Preparation Guidance

The American Water Works Association's (AWWA) Principles and Practices of Water System Operations (WSO) series is the leading operator certification training, aligned with current Water Professionals International (WPI) (formerly Association of Boards of Certification) Need-to-Know criteria and offering training based on experience and certification level. The OpCert Program identifies operators who would benefit from additional study materials and offers WSO Level 1 and Level 2 books free of charge. OpCert is developing a study plan that involves online quizzes for each chapter of the WSO books to assist operators in their studies. An operator can work with OpCert staff to develop a study plan that includes taking quizzes at predetermined times to help set a pace for study and identify areas requiring a more in-depth review. OpCert has a pre-test available for operators to take prior to attending training programs to gauge their level of preparedness. Operators are encouraged to take the pre-test to identify areas of focus for studying.

Course in a Box

In order to help Alaskan operators better prepare for certification exams and their job responsibilities, OpCert contracted the development of introductory and intermediate courses that utilize the AWWA WSO Water Treatment Grade 1 and 2 manuals as the base texts. The intent of these courses is to address the unique needs and requirements of water treatment operations in Alaska, while also providing broadly applicable knowledge required for ABC certification exams.

These "Course in a Box" materials are available to Alaskan trainers, municipalities, regional health corporations, and other interested parties who intend to provide trainings for operators. The materials can be used to conduct 4-day trainings at both introductory and intermediate levels, and include PowerPoint presentations and associated required media, instructions for interactive learning tasks, lists

of suggested exhibits for hands-on learning, and tools for assessing operator knowledge before, during, and after a course.

Train the Trainer

In addition to efforts to develop training materials to improve technical capacity, ADEC recognizes the need for qualified and effective in-state trainers to present the materials to operators. OpCert works to identify and reach out to industry professionals, as well as current and former operators, who would make good trainers. To assist individuals in refining their presenting and training skills, OpCert occasionally arranges train the trainer events.

Water System Excellence Award Program

To express appreciation and acknowledgement for the systems, and operators, that have achieved compliance with ADEC regulations, OpCert has implemented an annual utility recognition program. This award program aims to increase the visibility of systems and operators who have demonstrated their commitment to providing safe drinking water, as community appreciation is essential to maintaining TMF capacity. Through this effort, OpCert hopes that positive recognition will contribute to employee retention and community support and encourage improvements in systems that are not currently recognized.

The Water System Excellence award is comprised of two tiers: Ursa Major and Ursa Minor. A water treatment system or water distribution system will be awarded Ursa Major if it has maintained four quarters of Operator Certification compliance and has no open, unresolved, or incurred Drinking Water violations during a calendar year. Ursa Minor is awarded to a system that has maintained four quarters of Operator Certification compliance and has no more than one open, unresolved, or incurred Drinking Water violation during a calendar year, or three quarters of Operator Certification compliance and no open, unresolved, or incurred Drinking Water violation during a calendar year, or three quarters of Operator Certification compliance and no open, unresolved, or incurred Drinking Water violations during a calendar year.

Systems receive recognition at the Alaska Water Wastewater Management Association annual statewide conference, on the ADEC website, and via letter and certificate of recognition. Additional recognition categories will be added in the future for systems that maintain the Ursa Major tier for multiple years in a row.

Remote Maintenance Worker Program

The RMW Program delivers training and technical assistance to rural utility operators in nearly 200 Alaskan communities. RMWs assist with building and maintaining technical capacity by providing several services to rural Alaskan operators. Each of the 15¹ RMWs are assigned up to 15 communities in a specific geographical region, allowing them to develop both a thorough knowledge of the water and wastewater systems, as well as strong working relationships with the operators and managers of the systems.

Onsite Training

One of the most important aspects of the RMW Program is the onsite, on-the-job training in the proper operation and monitoring of utilities and compliance with state and federal regulations. RMWs strive to make at least one onsite visit to assigned communities each year, but often make several trips if a

¹ Three and a half state employees and 11.5 employed by the five regional health corporations.

community or operator requires additional assistance. Frequently during routine trips, problems are discovered that, if left unattended, could result in serious system problems.

RMWs offer targeted, system specific assistance that allows operators to improve the sampling, troubleshooting, maintenance, and mechanical repair skills needed to adequately run a community's utility, all within the context of their own system. Additionally, RMWs provide the training and materials needed to assist operators in preparing for certification examinations.

RMWs also regularly present their insight and recommendations concerning operation and maintenance (O&M) requirements, issues, and costs, as well as operator training needs to local government officials.

Preventative Maintenance Plans and Reporting Preparation

RMWs work with operators to develop and revise preventive maintenance plans and train them in accurate record keeping and reporting.

Emergency Assistance

Responding to emergencies is another hallmark of the RMW Program. Freeze-ups, floods, leaks, sewage discharges, and other situations can result in extended service disruption or threaten public health. RMWs are available to provide immediate assistance to utilities in emergency situations.

Regional Training Workshops

In addition to one-on-one training and local response, RMWs facilitate regional training workshops for operators and provide classroom instruction to prepare operators for State certification exams. RMWs often collaborate with various state and regional health organizations to deliver these trainings.

Drinking Water Program

The DW Program's mission is to protect the health of the people of Alaska by establishing, maintaining, and enforcing standards for safe and reliable drinking water. The DW Program focuses on providing a high level of technical and compliance assistance to the owners and operators of PWSs in Alaska.

Compliance Assistance

DW Program staff provide a customized annual compliance monitoring schedule for each PWS early in the calendar year. This Monitoring Summary is a significant compliance assistance activity which supports TMF capacity, as it assists PWSs to schedule and budget for required compliance monitoring.

The DW Program also maintains and supports web resources that provide information to PWS owners, operators, consulting engineers, and technical assistance providers on financial and managerial tools, capacity assessments, as well as compliance and monitoring assistance information. Additionally, an array of drinking water related information and resources is available on the DW Program website.

Technical and Onsite Inspections

DW Program staff conduct onsite sanitary surveys. Inspectors review the management and operations of the PWS and identify areas for improvement. Technical assistance is provided during, and as a result of, the inspection, both to correct noted deficiencies and to improve the operation of the system.

The DW Program also provides training and quality assurance/quality control oversight of the third-party State approved Sanitary Survey Inspectors. Additionally, the Alaska Rural Water Association (ARWA) employs sanitary surveyors to perform many surveys each year; the DW Program and ARWA collaborate to provide and leverage limited resources to communities throughout the state. DW Program engineering staff conduct Filtration Avoidance Inspections for unfiltered surface water systems with approved waivers. These inspections include evaluations of the technical and managerial aspects of the systems, with the overall goal to identify factors that could increase compliance and optimization of the system. The results of these inspections are sent to the PWS owners.

Village Safe Water Program

The VSW Program, within the ADEC Division of Water, works with rural communities to develop sustainable water and sanitation facilities.

Project Oversight

The VSW Program employs engineers to work directly with communities to identify project needs and assist with applications for funding, as well as provide project management and oversight of funded improvement projects.

Grant Funding

As previously discussed in the Capital Improvement Project Funding section, the VSW Program administers funding for planning, design, and construction of sanitation improvements in rural Alaskan communities that, once complete, improve the technical capacity of systems within the community.

Rural Utility Business Advisor Program

The goal of the RUBA Program is to increase the managerial and financial capacity of rural water and wastewater utility providers.

On-the-Job Assistance

One-on-one or small group training is provided by RUBA staff for local utility staff. Upon a community request, RUBA staff travel throughout all regions of the state to provide capacity building assistance.

Training Materials

In addition to the technical, on-the-job assistance, the RUBA Program also maintains several useful publications on the RUBA website, ranging from plain English guides to regulations and utility accounting, to rate calculators and collections handbooks. RUBA staff also develop templates for utility budgets, monthly financial reports, and meeting minutes, and train local staff on the proper use and formatting of these tools.

32 Hour Utility Management Classes

The RUBA Program hosts 32-hour utility management courses in nine key areas: personnel management, organizational management, financial management, clerk management, elected officials management, introduction to rural utility management, operational management, planning management, and QuickBooks training.



Reservoir in Ouzinkie, Alaska

Capacity Development Coordination

In August 2000, the *Report of Findings – On Improving the Technical, Managerial and Financial Capacity of Alaska's Public Water Systems* was completed by the Citizen Advisory Board to the Alaska Department of Environmental Conservation.² The report identified several factors that either encouraged or impaired the TMF capacity of public water systems. The *Report of Findings* suggested that capacity is strongly impacted by the number of entities providing services at the federal and state levels. While the different resources are beneficial, issues arise due to a lack of inter-agency and intra-agency communication and coordination. ADEC has taken measures to increase communication, collaboration, and coordination with entities involved in capacity development.

Stakeholder Engagement

ADEC has procured a contractor to conduct a statewide survey of stakeholders and partners to gather insight about the capacity building needs of systems statewide. The survey respondents will be provided with an opportunity to communicate challenges and successes related to current capacity development initiatives, as well as ideas of how ADEC and partners could provide better or more relevant assistance. The survey will also include asset management questions designed to prompt utility owners to evaluate the current state of their assets. Based on survey responses and number of surveys completed, ADEC may target further outreach to PWSs.

The information gathered through the survey will relate to supporting, promoting, and improving the TMF capacity of public drinking water systems in Alaska. All data gathered will be combined and analyzed and a report of findings will be completed. This is particularly timely in light of the

² The Report of Findings is available online at <u>https://dec.alaska.gov/media/5323/cap-dev-report-on-findings.pdf</u>.

supplemental set-aside funding available through the Infrastructure Investment and Jobs Act. Subsequently, ADEC intends to further refine the Alaska Capacity Development Strategy based on this stakeholder input.

Regional Coordination Meetings

The TA Program coordinates annual regional meetings that bring together representatives of all regulatory programs and technical assistance providers that address rural sanitation needs. Participants include the RMW, CapDev, OpCert, VSW, DW, ADEC Wastewater, ADEC Solid Waste, and RUBA program staff, along with ANTHC staff and environmental health staff from regional health corporations. At these meetings, participants review and evaluate the current capacity status and needs of all rural communities within each region of the state.

The goal of these meetings is to coordinate effective and consistent communication between the agencies which aid rural communities with their sanitation infrastructure needs, capture community needs for funding purposes, and establish interagency collaboration on technical assistance efforts to communities.

Coordination with Other Technical Assistance Providers

There are numerous programs available in Alaska that relate to capacity development. The following provides description of the primary programs or entities that ADEC staff work with to provide capacity development measures in one form or another (see Appendix D for a list of stakeholders, connections, and partners).

Regulatory Commission of Alaska

The RCA regulates public utilities by certifying qualified providers of public utility and pipeline services, ensuring that they provide safe and adequate services and facilities at just and reasonable rates, terms, and conditions. This keeps rates as low as possible while allowing the utility to earn a fair return. While reviewing new water system applications for capacity, ADEC requires a copy of a Certificate of Public Convenience and Necessity for any utilities regulated by RCA to demonstrate financial and managerial capacity.

Alaska Rural Water Association

ARWA provides a variety of services to small water and wastewater systems and operators throughout Alaska. Programs include onsite technical assistance and regional training to operators, formal training to operators and utility personnel through classroom-style seminars, development of source water protection plans to ensure the safety of water sources used primarily for drinking water, and outreach to communities about the importance of protecting their source water. ARWA also recognizes member systems and operators who have done outstanding work with annual awards.

As the Primacy Agency, ADEC provides input to ARWA on their annual work plans for federal grant funds. ADEC collaborates with ARWA to provide insight on training needs across the state and to review the success of prior trainings. Additionally, ADEC staff present at the ARWA annual training conference, which provides operators with the opportunity to earn continuing education units.

Alaska Water Wastewater Management Association

The Alaska Water Wastewater Management Association (AWWMA) manages the activities of the Alaska Section of the American Water Works Association (AWWA) and the Water Environment Federation (WEF). AWWA is an international, nonprofit, scientific, and educational society dedicated to providing

total water solutions assuring the effective management of water. WEF is a nonprofit association that provides technical education and training for thousands of water quality professionals who clean water and return it safely to the environment. AWWMA provides water professionals with career development opportunities through conferences, workshops, classroom trainings, and webinars and engages in ongoing efforts to recognize the importance of water and wastewater professionals by presenting operators and systems with annual awards in several different categories and scholarships opportunities for operators and high school students.

ADEC staff hold memberships with the AWWA and present at the annual AWWMA conference, which provides operators with the opportunity to earn continuing education units while interacting and networking with other professionals in the water and wastewater industry.

Tribal Health Organizations

The Indian Health Service (IHS) is the principal federal agency responsible for providing health care services for Alaska Natives. Operating within the IHS health delivery system, the Sanitation Facilities Construction (SFC) Program is the environmental engineering component. The SFC Program provides technical and financial assistance to Alaska Native villages for the cooperative development and construction of safe drinking water supply, sewage, and solid waste disposal facilities, and related support facilities. IHS routinely offers training to operators and provides funding through the Alaska Native Tribal Health Consortium (ANTHC) to regional Tribal Health Organizations (THOs) for training.

ADEC works in close collaboration with ANTHC as well as the other THOs in Alaska. The ADEC's RMW Program awards grants to the Bristol Bay Area Health Corporation, Maniilaq Association, Norton Sound Health Corporation, Tanana Chiefs Conference, and the Yukon-Kuskokwim Health Corporation to support RMW positions located in regional hubs.

RMWs and THOs also participate in planning and design reviews for system improvements. They provide vital insight regarding the operability of systems and contribute their significant local knowledge during these processes. RMWs employed by THOs assist ADEC in assessing the operations and maintenance capacity of rural water and wastewater utilities for Best Practices scoring.

Additionally, Environmental Health Officers (EHOs) generally work with systems on compliance monitoring and conduct sanitary surveys. As discussed above, these organizations also take part in regional coordination meetings to review ongoing and planned projects for communities in each service region.

Alaska Native Tribal Health Consortium

ANTHC's Division of Environmental Health & Engineering (DEHE) is responsible for the design and construction of water and wastewater sanitation facilities. The Tribal Utility Support (TUS) department within DEHE provides numerous technical and financial capacity building services in many rural villages that include onsite operator training, rate studies, preventative maintenance, and emergency assistance.

The Alaska Rural Utility Collaborative (ARUC) is an ANTHC program that aims to maximize the public health benefits of sanitation facilities and build local community capabilities. ARUC supports its member communities in setting water/sewer rates, billing local water and sewer customers, and providing guidance to local water plant operators. ARUC assists partner communities with hiring local water plant operators. Each community system is treated as a standalone non-profit business. Money from local

customers, generated from utility fees and local community and regional support, must be enough to pay the system's direct expenses.

Rural Community Assistance Corporation

The Rural Community Assistance Corporation (RCAC) provides environmental assistance to small municipal and nonprofit water systems, wastewater systems and solid waste management programs in 11 western states. They currently have a robust library of both online and in person water and wastewater trainings focused on building TMF capacity and are expanding these offerings with new funding. The CapDev Program will collaborate with RCAC and support their efforts to make these trainings available to water systems in Alaska.

University of Alaska

The University of Alaska (UAA) has several programs that prepare students for sanitation work in Alaska, including Civil and Environmental Engineering degree tracks; a Process Technology Program, which prepares students for employment as operations technicians in the process industry, including utilities, wastewater treatment facilities; and Career and Technical Education programs, which are designed to give students occupational training. Programs that support capacity development include Tribal Management, Facility Maintenance, and Rural Surface Water Quality Testing.

UAA also engages in research related to water treatment and management and has been contracted by the State for a variety of sanitation related efforts. Currently, UAA is wrapping up a study that reviews water usage in plumbed homes across rural Alaska. The goal is to reach a better understanding of how much water is being consumed at the household level and how it is being utilized. The results of this study will be used by researchers and policy makers to help guide development of wastewater reuse systems, adoption of efficient appliances and water fixtures, and implementation of public outreach campaigns to encourage more efficient and effective water use throughout the state.

A research team led by UAA also participated in the Alaska Water and Sewer Challenge (Challenge) competition. In 2013, the State of Alaska launched the Challenge in partnership with federal and tribal agencies to develop innovative and cost-effective water and sewer solutions for homes lacking indoor plumbing in remote Alaska villages. As a Phase 4 finalist in the competition, the UAA team is tasked with testing an in-home water reuse system at a town style dorm occupied by UAA students. The prototype system is currently installed and in use and the UAA development team is collecting data and making adjustments.

Alaska Job Corps Center

Job Corps is a free education and training program for young adults, and Water/Wastewater Management is one of the programs offered in Alaska. The program offers hands-on training in many different types of water and wastewater management work at an onsite training facility, experience in a variety of water management settings, and instruction on water and wastewater regulations and monitoring. The program prepares graduates to go to work as water and wastewater treatment operators, power plant distributors, utility planning specialists, or utility operations specialists.

Environmental Finance Center Network

The Environmental Finance Center Network (EFCN) offers free assistance on financial and managerial topics to systems serving 10,000 or fewer people. As part of their federal grant awards, the EFCs are required to coordinate with state primacy agencies to ensure their activities are aligned with those of

the State. For EFC workshops scheduled in Alaska, CapDev staff provide logistical support to the EFC with information about locations and timing for the greatest possible workshop turnout and assists with distributing surveys and workshop details to operators across the State.

EPA Workgroups and Workshops

The State participates in EPA activities as they become available and as state funding allows. Recent participation has included the Capacity Development and Operator Certification Collaborative Workgroup; a workgroup focused on discussing and improving collaboration between different state programs, as well as the Tribal Workforce Workgroup.

Asset Management

Alaska's public water systems are experiencing many of the same challenges faced by water utilities countrywide including aging and degrading infrastructure, decreasing revenue, a shortage of qualified operators and administrators, and increasingly stringent regulatory requirements. These issues in Alaska are further compounded by a harsh climate, transportation challenges, geographic isolation, and sparse population density.

Systems dealing with these challenges may turn to asset management to provide a clearer picture on how to ensure capacity within their water systems. Asset management is a process for maintaining a desired level of customer service for PWSs to provide at the lowest life cycle cost. Asset management practices center around the development of detailed asset inventories, scheduling operations and maintenance tasks, developing capital improvement plans, and long-term financial planning to shift utility operations from reactive to proactive. ADEC is in the early stages of developing an asset management strategy utilizing existing assistance efforts for outreach and developing an asset management toolkit to support adoption.

Outreach and Encouragement

ADEC will take advantage of the water utility support system already in place in Alaska to educate and inform PWSs about what asset management is and how it can stabilize and protect their water utilities and the public health. Asset management information will be incorporated into a range of existing resources such as conferences, educational and support materials, and in-person assistance by the RMW program, ANTHC's TUS group, ARWA, ARUC, and RCAC. These efforts will engage and educate stakeholders about asset management plans and direct them towards development resources.

Current asset management assistance supported and encouraged by the State includes introduction to asset management workshops presented at the annual ARWA and AWWMA conferences. In 2022, these workshops provided utility owners with insight on the significance of using asset management tools to maintain their water system infrastructure. Asset management trainings are also listed on ADEC's annual training calendar webpage as they become available and qualify participants for continuing education units (CEUs).

Content describing the benefits and specifics of asset management is being integrated into existing outreach efforts such as the ADEC Statewide Capacity Development Survey, Operator Welcome Packets, Training Calendars, and Operator Certification training curriculum.

Training and Assistance

ADEC is committed to assisting all interested systems with the development and implementation of asset management plans. The EPA's five-point framework will serve as the foundation for the development of tools and resources going forward. The framework is composed of the following core questions:

- 1. What is the current state of the utility's assets?
- 2. What is the utility's required "sustainable" level-of-service?
- 3. Which assets are critical to sustained performance?
- 4. What are the utility's best "minimum life-cycle cost" capital improvement plans and operations and maintenance strategies?
- 5. What is the utility's best long-term financing strategy?

ADEC will work to develop asset management tools, trainings, workshops, and guidance documents that utilize the five-core-question framework. Tools and techniques for assisting with inventory creation, system mapping, maintenance scheduling, and financial planning will be developed. These outreach and assistance efforts will be expanded as asset management becomes a common element of how water and wastewater systems are designed, operated, and maintained in Alaska.

New Systems

New systems must undergo capacity assessments prior to receiving required approvals to construct and operate. ADEC will explore the option to send approved new systems an asset management informational packet that provides contact information and resources, such as the EPA's "Asset Management: A Best Practices Guide" to educate utility staff of the importance of asset management.

SRF Loan Funded Systems

In State Fiscal Year 2022, the SRF Fund Program introduced the Sustainable Infrastructure Planning Projects (SIPP) funding opportunity to assist small water system in financing planning and related activities that promote sustainable infrastructure. Up to \$75,000 in loan principal forgiveness is offered to disadvantaged communities to implement SIPP projects including development of asset management plans, feasibility studies, consolidation studies, water rate analysis, leak detection studies, and water system master plans. In SFY24 the SRF is incorporating asset management into the project evaluation and scoring process to further incentivize the development and implementation of asset management plans and activities.

Existing Systems

Existing PWS asset management outreach will take advantage of outreach efforts currently underway including the ADEC Drinking Water annual mailer, Statewide Capacity Development Survey, Operator Welcome Packet, Training Calendars, and in person outreach from RMWs and other technical assistance providers.

Barriers

Barriers to adopting asset management activities currently or in the future for the State may include limited resources to adequately reach all systems needing assistance, while barriers for systems may include obtaining buy-in and support from PWS management and staff, difficulty incorporating asset management into existing data management systems, and the perceived redundancy of creating and maintaining an additional planning/tracking system. However, ADEC is committed to aiding systems that actively seek to develop or implement asset management plans. Through outreach and education ADEC will provide utilities with an understanding of why effective asset management is essential to sustaining water infrastructure and will encourage asset management using the EPA five-core-question framework as a proactive and intentional management tool, in contrast to management based on crisis and emergency response.

Measuring Success

Statewide, compliance data is a strong indicator of systems in need. As discussed previously, sanitary surveys, the ETT list, and the Best Practices scores are used to identify and prioritize systems for capacity assistance. Additionally, the OpCert Program maintains a quarterly schedule of analyzing and ranking the operator certification compliance status of systems; systems that rank the highest (based on factors such as system type, population served, source water, and system classification) are also targeted for capacity assistance. Improvements to capacity may be measured by changes in the number of deficiencies found through sanitary surveys, the number of systems on the ETT list, Best Practices scores, and the number of systems with properly certified operators. Systems identified through these tools and metrics will be targeted for additional outreach efforts and encouraged to adopt asset management plans and provided with the tools and assistance to do so.

Reporting

Annual Capacity Development Report

A Capacity Development Report will be prepared annually, based on the capacity development activities completed within the federal fiscal year, as required by 42 U.S.C. 300g-9(b)(2). This report will detail the capacity development efforts and discuss their apparent effectiveness in improving the overall capacity of Alaska PWSs including a synopsis of the asset management outreach and assistance efforts.

Tri-Annual Governor's Report

A report will be provided to the Governor every three years, summarizing the capacity development efforts, successes, challenges, and the potential improvements to the Strategy initiatives, as required by 42 U.S.C. 300g–9(c)(3). In compliance with the AWIA amendment to Section 1420(c)(3) of the SDWA, the 2023 report and those thereafter will specifically address the State's asset management promotion activities.

Tri-Annual Historic List

A report will be provided to the EPA every three years on community and nontransient noncommunity water systems that have a history of non-compliance, discussing the capacity development efforts used to address their issues and, to the extent practicable, the reasons for noncompliance as required by 42 U.S.C. 300g-9(b)(1).

Appendix A: State of Alaska Organization Chart as it Relates to Capacity Development



Appendix B: Best Practices Scoring Criteria

Category		Best Practice	Points	
		Utility has more than one operator certified to the level of the water system	10	
		Primary operator is certified to the level of the water system and the backup operator holds some level of certification in water treatment or distribution	7	
	Operator Certification	Primary operator is certified to the level of the water system and the backup operator holds no certification or there is no backup operator	5	
		Utility has one or more operators certified at some level in water treatment or distribution	3	
ica		Utility has no certified operators	0	
Techni	Preventive	Utility has a written PM plan; PM is performed on schedule; records of completion are submitted on a quarterly basis and have been verified	25	
	Maintenance Plan	Utility has a written PM plan; performance of PM and record keeping are not consistent	15	
		Utility has no PM plan or performs no PM	0	
		Utility had no Monitoring and Reporting violations during the past year	10	
	Compliance	Utility had up to five Monitoring and Reporting violation during the past year	5	
		Utility had more than five Monitoring and Reporting violation during the last year	0	
		Total Technical Points	45	
Managerial	Utility Management Training	A person who holds a position of responsibility for management of the utility has completed a DCRA approved Utility Management course or other utility management training course within the last five years	5	
	Meetings of the Governing Body	The utility owner's governing body meets routinely consistent with the local ordinance/bylaw requirements and receives a current report from the operator	5	
		The utility owner's governing body meets routinely consistent with the local ordinance/bylaw requirements	2	
		The utility owner's governing body does not meet	0	
	Total Managerial Points			
		Utility owner and the Utility have each adopted a realistic budget and budget		
	Budget	amendments are adopted as needed; Accurate monthly budget reports are prepared and submitted to the governing body	15	
		Either the Utility or the Utility owner has adopted and implemented a budget, the other has not	13	
		Either the Utility or the Utility owner has adopted a budget, but it is not being implemented	10	
		Utility owner and the Utility have not adopted a budget	0	
		Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account	20	
cial	Revenue	Utility is collecting revenue sufficient to cover expenses	15	
ano		Utility has a fee schedule and a collection policy that is followed	5	
MIN.		Utility has no fee structure or collection policy	ο	
	Wonkon's	Utility has had a workers' compensation policy for all employees for the past two	5	
	Worker's Compensation	Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has a current workers' compensation policy in place for all employees	5 2	
	Worker's Compensation Insurance	Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has a current workers' compensation policy in place for all employees Utility has no workers' compensation policy	5 2 0	
	Worker's Compensation Insurance	Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has a current workers' compensation policy in place for all employees Utility has no workers' compensation policy Utility has no past due tax liabilities and is current with all tax obligations	5 2 0 5	
	Worker's Compensation Insurance Payroll	Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has a current workers' compensation policy in place for all employees Utility has no workers' compensation policy Utility has no past due tax liabilities and is current with all tax obligations Utility owes back taxes, but has a signed payment agreement, is current on that	5 2 0 5 2	
	Worker's Compensation Insurance Payroll Liability Compliance	Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has a current workers' compensation policy in place for all employees Utility has no workers' compensation policy Utility has no past due tax liabilities and is current with all tax obligations Utility owes back taxes, but has a signed payment agreement, is current on that agreement, and is up-to-date with all other tax obligations Utility is not current with its tax obligations and/or does not have a signed repayment agreement for back taxes owed	5 2 0 5 2 0	
	Worker's Compensation Insurance Payroll Liability Compliance	Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has a current workers' compensation policy in place for all employees Utility has no workers' compensation policy Utility has no past due tax liabilities and is current with all tax obligations Utility owes back taxes, but has a signed payment agreement, is current on that agreement, and is up-to-date with all other tax obligations Utility is not current with its tax obligations and/or does not have a signed repayment agreement for back taxes owed Total Financial Points	5 2 0 5 2 0	

Appendix C: Capacity Assessment Worksheet



ALASKA DRINKING WATER FUND PROGRAM DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CAPACITY ASSESSMENT WORKSHEET FOR POTENTIAL PROJECTS

The 1996 amendments to the federal Safe Drinking Water Act require Alaska to assess the capacity of potential recipients of loans from the Alaska Drinking Water Fund (ADWF). By capacity, EPA means the technical, financial and managerial capabilities of a water system for proper long-term operations. If a loan applicant is found lacking in these areas, we may not be able to provide financial assistance from the ADWF unless the capacity of the system is guaranteed.

Consequently, we are asking for detailed information from potential loan applicants to help us in this assessment. Such things as financial records, enterprise fund budgets and audits, along with detailed planning and engineering information for your system will help ensure our ability to provide you this loan for your project.

The following is an outline of our assessment process. Please carefully review and complete these worksheets and make sure the information you provide us is current and accurate.

TECHNICAL CAPACITY ASSESSMENT

We intend to use the following questions and answers to help us evaluate your systems technical capacity. These questions address the physical components of your drinking water system and are related to water treatment facilities, water sources, storage and pumping capacity and water distribution capacity. Pertinent technical documentation such as engineering feasibility studies and reports should be provided as appropriate.

- Are the existing water treatment facilities adequate and functional? Please provide a description of the system and the proposed project. Will this system likely meet federal and state drinking water regulations expected to be enacted within the next four years? *This includes the ICR, Groundwater Disinfection Rule and Enhanced Surface Water Treatment Rule.* Is the existing water source developed and protected? Will this system likely meet future source protection requirements?
- 3.) Is the current system able to meet peak demand flow and pressure in all points of the treatment and distribution system? What is the current peak demand and minimum pressure at peak demand? Does the system experience seasonal or periodic difficulties? When was the last leak detection survey? Please describe any corrections made.

Rev 11/98

Page 1 of 4

Capacity Development 2

4.) Does the system employ, or have access to, the correct level of certified or qualified operators?

Under State regulation, all water systems serving more than 500 people are classified as to complexity and require either a I,II,III or IV level operator or a qualified surface water system operator.

Please provide the name and certification number of your lead certified operator or operators in charge of your water treatment and water distribution systems.

5.) Has the water system been out of compliance with federal or state drinking water regulations within the past year? Please provide any compliance or enforcement actions taken recently such as Noticesof-Violation (NOVs), Compliance-Order-By-Consent (COBCs), boil water notices and the most recent sanitary survey.

FINANCIAL CAPACITY ASSESSMENT

Financial capacity is assessed by examining the fiscal condition and financial management aspects of the system. Financial aspects relate to the systems ability to raise the necessary funds to ensure proper operation and maintenance, including long-term depreciation and reserve accounts. Financial management refers to the management of those fiscal aspects.

If a system is regulated by the Alaska Public Utilities Commission (APUC), information contained in the application for the current Certificate Of Public Convenience And Necessity or the annual APUC Report may help demonstrate financial capacity. A copy of the annual report to the APUC may also contain the necessary information related to financial capacity. For example, if a system is applying for the APUC certificate, a copy of the application package should be submitted for review with the ADWF loan application. If a system already has a current APUC Certificate, a copy of the annual report to the APUC should be submitted for review with the ADWF loan application.

For those systems that are not regulated by the APUC, have not completed an application package for certification by APUC, or have not submitted an annual report to the APUC, the following questions will help us evaluate the financial aspects of the system. These questions relate to total user charge revenues and total system expenses, other revenue streams, fairness and affordability of user charges, cash budgeting, preparation and use of annual and capital budgets, and periodic financial audits

- 1.) Does the water system have user ordinances and a rate structure? How often are the rates reviewed or updated? When was the last update?
- 2.) Does the water system revenue from user charges meet or exceed system expenses? Please submit your water utility budget documents that clearly show revenue and expenses.
- 3.) Are other funds contributed to water system operations to offset expenses?

4.) How affordable are water system rates? What are the estimated residential rates per household (after the project) compared with the median household income and other similar system rates?

Capacity Development 2

- 5.) Does this system use an annual budget?
- 6.) Does the system include a cash budget within the annual budget for operations and emergency purposes?
- 7.) Does the system use a capital budget?
- 8.) Does this system use a capital improvement plan?
- 9.) Does this system undertake regular financial audits? Please provide the most recent financial audit of the water utility accounts, including any appropriate state single audit documents along with the auditor management letters.
- 10.) How will this loan be repaid? Please describe how this loan debt will be retired. If user fees are proposed as the repayment source, how much will rates need to be increased to retire this loan?

MANAGERIAL CAPACITY ASSESSMENT

Managerial capacity is assessed by evaluating managerial qualifications and experience, organizational structure, the compliance history of the system, training programs offered, preventive maintenance programs, and documentation of ownership and responsibility.

The following questions help us to assess the systems managerial capacity and address the following aspects of system management:

1.)	How is the water system managed? Who is the system owner(s) and manager? Does the system utilize personnel and policy procedure Does the system require or encourage continuing educa What type of organizational structure exists?	es or manuals? ation for personnel?				
2.)	Does the system have written operation and mainten	nance manuals?				
3.)	Does the system employ, as needed, the services of a	professional engineer?				
4.)	Does the system have up-to date record or as-built d	lrawings?				
5.) Does the system implement a preventative maintenance program?						
6.)	6.) Does the system have an emergency operating plan and safety program?					
7.)	What types of public outreach education programs	are implemented?				
8.)	What professional organizations are operators members of?	& system managers				
Rev 11/98	Page 3 of 4	Capacity Development 2				

Appendix D:

Stakeholders, Connections, and Partnerships

Economic/Social Development

Organization	Туре	Website
US Economic Development Administration	Federal	https://www.eda.gov/contact/#seattle
Regional Office	reactar	million and a second contact insection
Sustainable Southeast Partnership (SSP)		http://sustainablesoutheast.net/
Alaska Municipal League (AML)		http://www.akml.org/
Southeast Conference (SC)	Region	http://www.seconference.org/
ANTHC/NTWC	Region	http://tribalwater.org/
Regional Health Organizations	Region	
Anchorage Community Development	Local	http://www.alaskacdc.org/
Corporation		
State Government – Division of Economic	State	https://www.commerce.alaska.gov/web
Development		/ded/
State Government – Department of Commerce,	State	nttps://www.commerce.alaska.gov/web
Community, and Economic Development		L https://www.commorce.clocks.cov/web
	Stata	/dera/PuralUtilityPusipessAdviserProgra
SIGLE RUDA	State	mBUBA aspx
Anchorage Community Development Authority		IIIKOBA.aspx
	Local	http://www.acda.net/
Anchorage Community Land Trust	Local	http://anchoragelandtrust.org/
Alaska Economic Development Corp	State	https://aedcweb.com/
Alaska Chamber of Commerce	State	http://www.alaskachamber.com/
(All town chambers of commerce)	otate	
ANA Alaska Region - Fund dozens of projects in		
Alaska, including in social and economic		https://anaalaska.org/
development		
Southwest Alaska Municipal Conference	Local	https://swamc.org/
Prince William Sound Economic Development	District	http://www.www.and.
District	District	nttp://www.pwsedd.org/
Kenai Peninsula Economic Development District		https://kpedd.org/
Association of Village Council Presidents		http://www.avcp.org/
Bristol Bay Native Association		https://www.bbna.com/
Kawerak, Inc.		http://www.kawerak.org/
Kodiak Area Native Association		http://kodiakhealthcare.org/
Native Village of Barrow		<u>http://nvb-nsn.gov/</u>
Central Council of the Tlingit and Haida Indian		http://www.ccthita.org/
Tribes of Alaska		<u>mtp.//www.cermu.org/</u>
University of Alaska Anchorage – Center for		https://www.uaa.alaska.edu/academics/
Economic Development		business-enterprise-institute/center-for-
		economic-development/
REAP Renewable Energy Alaska Project		http://alaskarenewableenergy.org/
Rural Community Assistance Partnership		https://www.rcac.org/environmental/w
(RCAC)		ater-wastewater-solidwaste/