

QUICK REFERENCE GUIDE FOR RURAL COMMUNITY

WATER
WASTEWATER
&
SOLID WASTE
UTILITIES



QUICK REFERENCE GUIDE FOR RURAL COMMUNITY WATER, WASTEWATER & SOLID WASTE UTILITIES

Congratulations!

You are in a vital position that plays a big part in keeping your community healthy. Managing and operating community water, wastewater, and solid waste utilities can be quite a challenge, with various rules and regulations to follow to keep your community safe while also providing consistent and affordable service. Fortunately, you are not alone in this!

This guide is here to give you an overview of the programs and technical assistance providers available to you and to tell you a bit about what your new role involves. Inside this packet, you'll find contact information for the helpful folks you can reach out to if you need a hand, discover how their programs are involved with your utility, explore key documents to guide you, and even QR codes and web addresses to make everything easy to access. There are also instruction pages (How Do I) to assist you in accessing online reference materials. Please review and explore each program and the tools that they offer to help you succeed.

Please remember, you can always reach out for help!

IF YOU HAVE ANY QUESTIONS ABOUT THIS WELCOME PACKET GUIDE, PLEASE CONTACT:



DEC's Capacity Development Team at DEC.Capacity.Development@alaska.gov

OR

Fatima Ochante

Phone: (907) 451-2106

Email: Fatima.Ochante@alaska.gov



Contact Information for Technical Assistance Providers



Your community has a set of people assigned to help you operate your sanitation utilities. Think of these people as a support team that can help you with any questions you may have, from water sampling to financial reporting to fixing broken pumps. Their job is to help you so feel free to reach out! On the following pages are brief descriptions about how each of these programs can assist you and your community. Call them to check in and let them know about your role with your community's utility.

You can find the list of contacts for your community on the **Community Water/Sewer Improvement Contact List** by scanning the QR code above or on DEC's website:

https://dec.alaska.gov/Applications/Water/OpCert/community-water-sewer-improvement-contact-list.xlsx

We recommend that you print, fill out, and post this page on the wall in the city office and in the water treatment plant for your Operators and Administrators to use.

Alaska Department of Environmental Conservation <u>dec.alaska.gov</u>									
<u>Drinking Water Program</u>	Phone: Email:								
Remote Maintenance Worker Program	Phone: Email:								
Operator Certification Program	Phone: Email:								
Wastewater Program Earl Crapps	Phone: 907-269-7681 Email: earl.crapps@alaska.gov								
Solid Waste Program	Phone: Email:								
Alaska Department of Commerce, Community, & Economic Development https://www.commerce.alaska.gov/web/									
Rural Utilities Business Advisor Program	Phone: Email:								

Occasionally there are changes to the technical assistance providers assigned to your community so make sure to check the **Community Water/Sewer Improvement Contact List** periodically. If you need assistance in looking up your community's contacts, please call the Capacity Development Program at 907-451-2106 or email dec.capacity.development@alaska.gov.

Brief Descriptions of Technical Assistance Programs

Drinking Water Program

http://dec.alaska.gov/eh/dw.aspx

1-866-269-7656

How they can help:

- Provide sampling and compliance assistance for public drinking water systems.
- Respond to complaints of contamination in public drinking water sources. Also, respond to waterborne disease outbreaks.
- Approve new public water systems and modifications to existing systems.

Note: Always contact your Drinking Water contact person <u>BEFORE</u> making any modifications to your water system.

Remote Maintenance Worker (RMW) Program

http://dec.alaska.gov/water/remote-maintenance/

907-269-7605

How they can help:

- Provide in person and over the phone training and technical assistance to rural water and wastewater operators.
- Provide immediate response to emergency situations that threaten or impact community water and wastewater facilities.
- Provide regional classroom training for utility operators in the region.
- Maintain an inventory of repair equipment available to loan to communities.

Operator Certification Program

http://dec.alaska.gov/water/operator-certification

907-465-1139

How they can help:

- Provide information about water and wastewater system classifications, operator certification requirements, certificate renewals, and continuing education.
- Notify operators about opportunities for training and certification exams and assist with resources to improve test scores.
- Connect communities to additional resources and appropriate contacts.

Wastewater Discharge Authorization and APDES Program

http://dec.alaska.gov/water/wastewater/

907-269-7681

How they can help:

- Answer questions about a community's wastewater discharge permits and authorizations.
- Provide guidance on the required sampling and reporting for wastewater discharge.
- Provide technical and compliance assistance to operators when there has been a violation of a wastewater discharge permit or authorization.

Solid Waste Program

https://dec.alaska.gov/eh/solid-waste

907-269-7802

How they can help:

- Assist with planning and permitting for current and future solid waste facilities.
- Provide training and technical assistance for solid waste operators.
- Produce guidance documents to help communities manage their solid waste.

Rural Utility Business Advisor (RUBA) Program

https://www.commerce.alaska.gov/web/dcra/RuralUtilityBusinessAdvisorProgramRUBA.aspx 907-269-4549

How they can help:

- Provide different types of managerial and financial trainings to communities both in-person and virtually.
- Provide on-site training and assistance on utility management and finances.
- Develop new management tools to assist water and wastewater utilities.

ADEC Drinking Water (DW) Program

What is the Drinking Water Program?

The DW Program is a part of the Alaska Department of Environmental Conservation's Environmental Health Division. The program is responsible for ensuring that public water utilities supply safe drinking water that meets federal health standards. DW Program staff also provides guidance to water utility owners and operators on the design, installation, operation, and maintenance of drinking water facilities.

How does the DW Program assist your community?

- By requiring that public water utility owners and operators regularly sample drinking water for regulated contaminants.
- By reviewing sample test results and specifying corrective measures when contamination or exceedances have occurred.
- By reviewing and approving the design of new public water systems and modifications to existing systems.
- By responding to complaints of contamination and to waterborne disease outbreaks.
- By implementing strategies to assist utilities in providing cost-effective safe drinking water.

What are your next steps for learning about the DW Program?

The DW Program generates and distributes a yearly monitoring summary that lists all sampling, inspection, and reporting requirements for your system. It is very important that you become familiar with the monitoring summary and the timeframes for sampling. **Proper sampling is required by federal and state laws and ensures that your drinking water is safe for your community.**

Please familiarize yourself with your monitoring summary. This summary is updated each year, so this packet includes instructions on how to access your system's current monitoring summary from the DEC website, and for water sampling procedures. If you have any questions about the monitoring summary, please contact your DW Program specialist.

When should you contact the DW Program?

- When your utility has a new administrator or operator, they should contact the DW Program to introduce themselves and receive guidance on sampling and compliance.
- If you have any questions about your utility's monitoring summary, taking drinking water samples, or when you need to send the results to the DW Program.
- Before making any modifications to your drinking water system, no matter how minor.
- If there has been a failure or suspected contamination of your drinking water system.

How to contact the DW Program:

To find your assigned DW staff, check the **Contact Information Page** of this binder. For any questions about the DW Program, contact:

- 907-269-7656
- If calling from outside of Anchorage: 1-866-956-7656
- https://dec.alaska.gov/eh/dw/



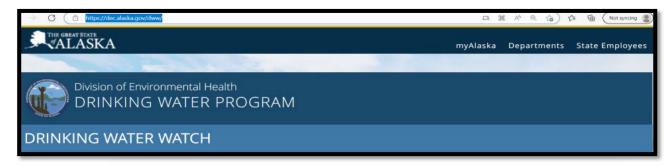
How Do I?

Access Drinking Water Monitoring Summary Online



Monitoring summaries are updated every year. If you need a copy of your most recent Monitoring Summary you can follow the steps below:

Scan the QR code above or use the URL: https://dec.alaska.gov/dww/

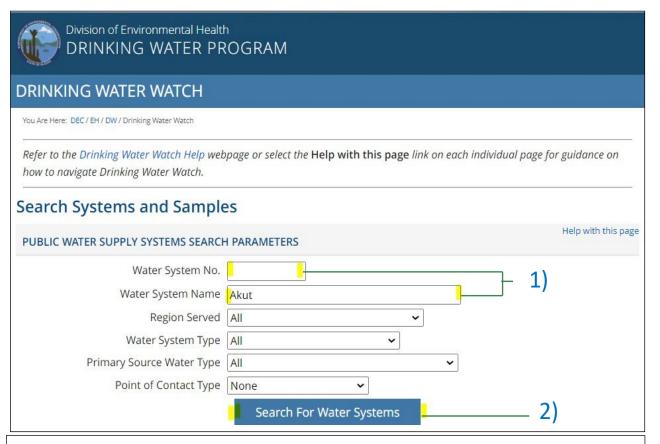


2. Once you are on the Drinking Water Watch page, follow below:

INSTRUCTIONS SUMMARY:

- Enter either the PWSID (last 6 digits) or the Water System Name (can also type partial name only)
 Click "Search for Water System"
 On the list, if there are multiple entries, select for the correct PWSID or Water System Name (clicking on a blue text field on the list will take you to a new screen)
 Click the "Current Monitoring Summary" from the middle column.
 This will take you to the monitoring summary for the water system you selected.
 Check the date of the monitoring summary to ensure it is for the current year.
 At the bottom of the monitoring summary, there is an EPS contact name, phone number and email address that you can contact if you have questions.
 See DW Watch instructions on next pages with corresponding instruction numbers.
- 3. Watch this video for additional help: How to Read the Monitoring Summary Video (Length 21 minutes) https://vimeo.com/212287846

Example: How to Search for the City of Akutan's Monitoring Summary-Screenshots

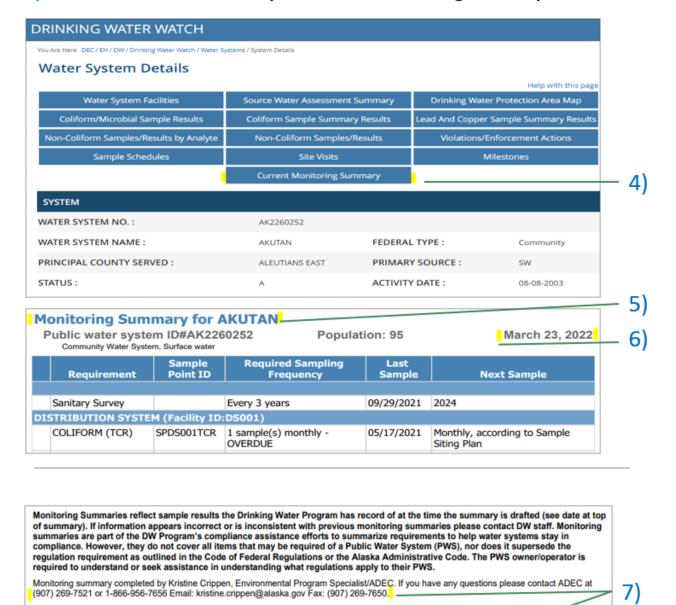


- 1) Type either Water System Number (last six digits) or Water System Name.
- 2) Then click "Search for Water Systems"



3) On the list, if there are multiple entries, click on the correct **Water System Number** or **Water System Name**. Clicking on a blue text field on the list will take you to a new screen).

Example: How to Search for the City of Akutan's Monitoring Summary-Screenshots



4) Click the "Current Monitoring Summary" from the middle column.

Sincerely.

Kristine Crippen

Environmental Program Specialist

- 5) This will take you to the monitoring summary for the water system you selected.
- 6) Check the date of the monitoring summary to ensure it is for the current year.
- 7) At the bottom of the monitoring summary, there is an EPS contact name, phone number and email address that you can contact if you have questions.

How Do I?

Take Drinking Water Samples







- ✓ **SAMPLE COLLECTION**. The Alaska DEC has provided instructions on their website on how to collect drinking water samples. However, always contact your Drinking Water Environmental Program Specialist (EPS) and/or your state-certified lab representatives for detailed questions on your specific water sampling requirements or how to use your water sample kits.
- ✓ **SAMPLE SHIPMENT AND LAB RECEIPT**. It is important you communicate with your state-certified lab personnel prior to shipping your water sample bottles for analyses for any special analytical arrangements or scheduling and to follow up with them to ensure timely receipt of your water samples.
- ✓ **CHAIN OF CUSTODY (COC).** Ensure you complete the COCs to be sent with all the water samples to the lab for analysis, write your water system number (also known as the public water system ID (PWSID)), and always make a copy of the completed COC to keep for your records.

Taking A Total Coliform Bacteria Sample Properly

Sometimes water samples fail a total coliform bacteria test because of a sampling error, not because the water system is actually contaminated. To ensure that this does not happen to you follow these steps when taking a coliform sample from your water system.

Step One



DO NOT RINSE OUT THE BOTTLE.

The powder in the bottle is meant to be there and will not contaminate your sample.

Step Two



WASH YOUR HANDS

prior to taking the sample. Then remove the sterile strip from the bottle.

Step Three



REMOVE FAUCET SCREEN

or other hoses or aerators from the end of the faucet. If possible avoid using a faucet that swivels.

Step Four



DISINFECT THE FAUCET

by dipping the end in a cap full of bleach before running the water. This is optional but is a good idea. If you're in a remote area, make sure you know the flight schedule and verify that the flight will be in. Take the sample as close to the departure time as possible.

Step Five



RUN THE COLD WATER LONG ENOUGH

to ensure that the water you are sampling has not been sitting in the pipes or tanks for a long time.

Step Six



TURN THE WATER DOWN

so it does not splash. Fill the bottle to at least the fill line (100ml). Do not fill it all the way up to the top, allow 1" head space.

Step Seven



SCREW THE CAP ON TIGHTLY.

Take special care not to touch the inside of the cap or bottle. If you do, start with a new bottle.

Step Eight



FILL OUT PAPER-WORK

and mail it with the sample. Keep a copy for your files. Pack the sample in a Styrofoam container or bubble wrap so the bottle doesn't break.

Important!
The lab must receive the sample when they are open and within 30 hours of collection

Keep the sample cool by placing samples in a cooler with an ice pack. Do not freeze.

Waterborne Diseases and Boil Water Notices

Waterborne Disease Outbreaks (WBDO's) occur when drinking water becomes contaminated by microbial pathogens or chemicals.

Typically, WBDO's are caused by microbial pathogens, such as bacteria, viruses, or protozoans. These pathogenic organisms are transmitted via the fecaloral route. This means that the drinking water supply has somehow been contaminated by fecal material from humans or other warm blooded mammals. The most important test used to determine if drink-

ing water has been



contaminated by disease-causing organisms, is the total/fecal coliform bacteria test. Coliform bacteria are present in the intestinal tracts of all warm blooded mammals and are good indicators of fecal contamination. If coliform are found in a water sample, it is possible that pathogenic organisms could also be present. It is important for public water systems to protect their source water from possible contamination sources, maintain treatment systems, including filtration and chlorination, and to routinely test the finished water for total/fecal coliform bacteria. If total coliform bacteria are detected in a sample, the PWS is required to conduct increased sampling to determine the extent and possible cause of the contamination. If fecal coliform are detected, it is called an "acute" violation and

the system will be put on Boil Water Notice.

The May 2000 WBDO in Walkerton, Ontario, illustrates the need for operators, public utility managers, and state drinking water officials to remain vigilant at all times. In this outbreak, the public water supply was contaminated by the bacteria 0157:H7. This pathogenic strain of E. coli serotype E. coli causes severe diarrhea and in some cases, kidney failure. Thousands of people may have been infected in Walkerton and fourteen deaths were under investigation at the time of the outbreak. It appears that proper response to the positive coliform tests could have reduced the harm. This case illustrates the importance of reporting all positive coliform tests to the ADEC immediately and the necessity for ADEC staff to take immediate action by issuing BWN's as needed, requiring additional samples, and requiring the water system to investigate possible causes of contamination. By routinely testing for coliform and responding immediately to positive coliform tests, we can greatly reduce the probability of a WBDO occurring in an Alaskan Public Water System. By working together, we can help to ensure the safety of the drinking water in our communities.



ADEC Remote Maintenance Worker (RMW) Program

What is the RMW Program?

The RMW Program is a partnership between the Alaska Department of Environmental Conservation and five regional health corporations to provide onsite training and technical assistance to operators in rural communities. Your assigned Remote Maintenance Worker will provide assistance to your water and sewer operators, with the aim of building up their skills and preventing failures of utility systems.

How can the RMW Program assist your community?

- By providing on-site and remote training and assistance to your water and sewer operators.
- By providing immediate response to emergency situations that threaten community water and sewer facilities.
- By assisting your operators in creating and following a Preventive Maintenance (PM) Plan, which is an important tool for tracking system maintenance.
- By providing regional classroom training for area utility operators.
- By maintaining an inventory of emergency repair equipment for loan to communities.

What are your next steps for learning about the RMW Program?

If your utility doesn't have one already, your assigned RMW will help you create a Preventive Maintenance (PM) Plan. A PM Plan is a daily, weekly, monthly, and annual operational checklist that will help your operators keep track of the maintenance requirements for your systems.

Please see the attached example PM Plan and contact your RMW to discuss creating a PM Plan for your utility.

When should you contact the RMW Program?

- Any time there is a new operator or utility manger.
- Any time utility operators need advice, assistance, or training with the utility systems.
- In the event of a system emergency, system management or operators should contact the RMW immediately to determine if the RMW can provide assistance.
- At least quarterly, the operators should provide PM Plan updates to the RMW.

How to contact the RMW Program:

To find your RMW, check the **Contact Information Page** of this binder. For any questions about the RMW Program, contact John Johnson:

Phone: 907-269-7605

Email: john.johnson@alaska.gov

https://dec.alaska.gov/water/remote-maintenance/



Preventative Maintenance Plan - Water Treatment Plant	Date:
Community:	
Daily Check List	
	N/A If not
Inside Water Plant	applicable
Record daily turbidity and chlorine residuals.	
Record Gallons per day usage for the previous 24 hours. Important, this will tell you if there is a leak in the system.	
Check solution vats for Polymer and/or Chlorine levels.	
Check effluent chlorine residual going to the water tank with a "Composite" sample.	
Check and record water level in tank. Should always be above half full.	
Inspect any unusual noise in the water plant.	
Check alarm panel and reset once resolved.	
Are chemical feed pumps in working order?	
Determine if filters need backwashing or bag filters need replacing.	
Record distribution system pressure. High, average, or low.	
Has a leak in the distribution system been reported? or low pressure? Note location.	
Notes:	
Weekly Check List inside Water Plant	
Check in with someone on the city or tribal council with any concerns.	
Call and check in/report to Mayor/Administrator.	
Were there any complaints from residents? Make notes.	
Inspect the pressure pumps and circulation pumps visually.	
Backwash filters if needed.	
Check water level in water storage tank.	
Replace light bulbs, emergency lighting, and check heater for operations.	

Outside Water Plant									
Visually check the walls, roof, stacks, ventilation hoods, and foundation for damage. Make notations as observed.									
Check the fuel tank and add heating fuel if needed. Make a note of gallons added.									
Check backwash line piping and backwash lagoon for problems.									
Check around septic tank, lift station, manholes, and drain field for sewage overflows.									
Police the area and pick up any trash.									
Notes:									
Monthly Check List									
Send in monthly Total Coliform sample to the lab, update sample site plan if needed.									
Fax or email monthly operator report/PM Plans to DEC.									
Submit a written report for council review (this is required per Best Practices).									
Clean SCD/Ph/Conductivity or other probes if needed.									
Check Septic tank and lift station.									
Check water Storage tank water level and inspect the tank.									
Notes:									
Quarterly Check List									
Clean and Calibrate Turbidimeters and/or Ph meters and probes.									
Clean chlorine pump, check valves, injector, and vat if needed.									
Check reservoir and intake screen. Make note of the date.									
Make notes of seasonal precipitation.									
Submit report to RMW and RUBA staff.									
Test Carbon Monoxide/ Smoke Detectors; Replace batteries as needed or annually									
Check Fire Extinguisher charge indicator; Replace or recharge unit if expired									
Notes:									

Annual Check List to be addressed by May 31st	
Monitoring Plan received and annual samples ordered	
Meet with council to discuss budget needs. Bulk chemicals ordered for the next year	
Consumer Confidence report Completed	
Spare pumps for chlorine, polymer, circulation, pressure, etc. are available.	
Tubing, brushes, cleaning supplies, and other disposables have been ordered	
Inspect Water Plant heating source and prepare for following cold season.	
Inspect and clean water storage tank if needed. Make note of last date cleaned.	
Updates or changes to this plan has been sent to RMW and RUBA representative	
Change batteries in Carbon Monoxide and Smoke Detectors;	
<u>Notes</u>	
Signature Water Operator:	Date
Signature City Clerk:	Date

ADEC Operator Certification (OpCert) Program

What is the OpCert Program?

The Operator Certification is a part of the Alaska Department of Environmental Conservation's Water Division. The program is responsible for ensuring that water and wastewater operators are properly trained and certified. The OpCert Program classifies water and wastewater systems, administers certification exams to operators, and coordinates trainings.

How can the OpCert Program assist your community?

- By providing information about the classification levels of your water and wastewater systems.
- By providing information about trainings and training materials for your utility operators.
- By arranging certification exams for operators in your community.
- By assisting your operators in remaining current in their certifications by earning Continuing Education Units (CEUs) every three years.

What are your next steps for learning about the OpCert Program?

Your water and wastewater systems are required to have operators who are certified to your system's classification level. System classification is based on several criteria such as the types of treatment used. Contact the OpCert Program to discuss how your system is classified and to see if you are certified to the correct level. Your OpCert Program specialist will review any steps that you need to take if you are not currently certified or need a higher level of certification. Your OpCert Program specialist will also review any continuing training needed to keep your certification active.

When should you contact the OpCert Program?

- When there is a new operator or utility manager.
- When you need to take training.
- When you need to take a certification exam or need exam study materials.
- When you need continuing education to keep your certification current.
- When changes have been made to your treatment systems.

How to contact the OpCert Program:

- 907-465-1139
- dec.opcert@alaska.gov
- https://dec.alaska.gov/water/operator-certification/



Operator Certification (OpCert) Program Training Calendar

Trainings available for utility administrators and operators are listed on the **Alaska Training Coalition Calendar**. If you are interested in taking a training, reach out to the listed contact in the calendar or the OpCert Program.



ALASKA TRAINING COALITION CALENDAR

Details

- · If you are interested in a particular course, you must call the contact listed to register for the course.
- Training classes may be canceled or rescheduled at the discretion of the instructor.
- · Per Board Policy 2016-01 (PDF), training must be at least one hour long to be eligible for CEUs.
- Yellow-shaded courses are introductory courses that "qualify" the attendee for a provisional level certification upon passing the
 provisional level certification exam and applying for certification. The Provisional Level exams may be administered on the last day
 of the course.
- · Green-shaded courses are those other than introductory courses that will have exams administered on the last day of the course.
- Blue-shaded webinars/webcasts are NOT approved for CEU credit unless prior arrangements have been made with the Operator Certification Program.

Septembe	r				
DATE	COURSE	LOCATION	CEUS	SPONSOR	CONTACT
Sept. 1	Deadline for Exam Registration Forms for Written Exams for Communities with Online Testing Centers or the North Slope Oil Fields for the October 13 th Written Exam Locations: Anchorage (including Mat-Su Valley, Palmer, and Wasilla), Barrow, Bethel, Cordova, Fairbanks, Homer, Juneau, Kenai, Ketchikan, Prince of Wales Island, Kodiak, Sitka, Valdez, and Prudhoe Bay Exam registration form. The registration form and the \$150 per exam fee must be in our office no later than September 1st.	Statewide	N/A	DEC	Operator Certification Program 907-465-1139
Sept. 7 - 15	Financial Management for Rural Utilities This training provides an overview of financial operations for rural utilities. Topics cover basic processes and procedures for financial reporting, fund accounting, budgeting, collections, risk management, audits, and rate setting. Registration is closed.	Online	3.2 Core	RUBA	Lynn Kenealy

For the most current training schedules, please scan the QR code above or use the URL: https://dec.alaska.gov/water/operator-certification/training-calendar/

How Do I?

Access Operator Database and My Operator Profile

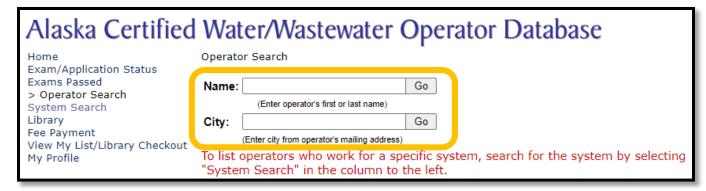


1. Scan the QR code above or use the URL:
https://dec.alaska.gov/Applications/Water/OpCert/Home.aspx?p=OperatorSearch

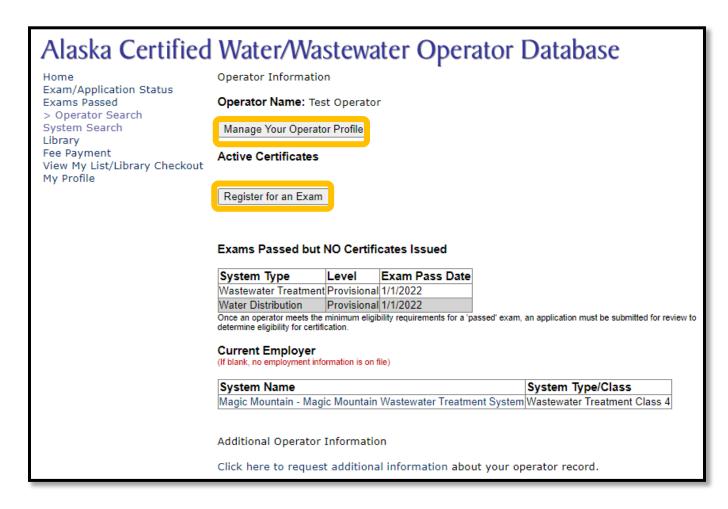
Or on the OpCert main page, click on the "OPERATOR DATABASE" link on the right side of the screen.



2. Type your name or city name and then click "Search".



3. The next page will provide you with information about your current certifications, exams that you have passed, and employer information. If you see anything that requires updates, you can click "Manage Your Operator Profile" or contact the OpCert Program. You can also register to take an exam from this page.



WATER SYSTEM OPERATOR

REIMBURSEMENT PROGRAM

ADEC OPERATOR TRAINING & CERTIFICATION PROGRAM

CERTIFIED OPERATORS IN WATER TREATMENT AND DISTRIBUTION CAN CLAIM REIMBURSEMENT OF UP

TO \$1000 FOR EXPENSES RELATED TO COURSE FEES, COMMERCIAL TRAVEL, AND LODGING.

* Non-certified water operators are eligible for reimbursement for costs associated

WITH ATTENDING A COURSE WHICH MAKES HIM/HER ELIGIBLE TO TAKE A WATER CERTIFICATION EXAM.

ELIGIBILITY

OPERATOR MUST BE A PRIMARY OR BACKUP OPERATOR. NON-CERTIFIED OPERATORS CAN ONLY BE REIMBURSED FOR WATER-RELATED PROVISIONAL CERTIFICATION PREREQUISITE COURSES. NO WASTEWATER RELATED COURSES WILL BE ELIGIBLE FOR REIMBURSEMENT. NO OUT-OF-STATE TRAVEL WILL BE REIMBURSED. IF YOU HAVE QUESTIONS REGARDING ELIGIBILITY, PLEASE CALL THE OPERATORS CERTIFICATION PROGRAM: 907-465-1139!

FOLLOW THESE STEPS TO APPLY:

OPERATORS

- COMPLETE AND SUBMIT THE OPERATOR
 PRE-APPROVAL FORM.
- COURSE AND TRAVEL RECEIPTS.
 - COMPLETE THE REIMBURSEMENT FORM

 AND THE TAXPAYER ID# FORM. SUBMIT FORMS,

 COURSE AND TRAVEL RECEIPTS, AND A

 CERTIFICATE OF COMPLETION TO THE OPERATOR

 CERTIFICATION PROGRAM.

CITY/UTILITY/SYSTEM OWNER

- COMPLETE THE CITY/UTILITY/SYSTEM OWNER
 PRE-APPROVAL FORM.
- OPERATOR COMPLETES AN APPROVED COURSE.
 KEEP ALL COURSE AND TRAVEL RECEIPTS.
 - COMPLETE THE REIMBURSEMENT FORM
 AND THE TAXPAYER ID# FORM FOR THE
 CITY/UTILITY/SYSTEM OWNER. SUBMIT FORMS,
 COURSE AND TRAVEL RECEIPTS, AND A
 CERTIFICATE OF COMPLETION TO THE OPERATOR
 CERTIFICATION PROGRAM.

PHONE: 907-465-1139

EMAIL: DEC.OPCERT@ALASKA.GOV

ADEC Wastewater Discharge Authorization & APDES Program

What is the Wastewater Discharge Authorization and APDES Program?

The Wastewater Discharge Authorization and APDES Program is a part of the Alaska Department of Environmental Conservation's Water Division. They issue and enforce the regulation of discharge of treated wastewater from permitted wastewater facilities to ensure that public health and the environment are protected.

How can the Wastewater Discharge Authorization and APDES Program assist your community?

- By answering questions about a community's wastewater discharge permits and authorizations.
- By providing guidance on the required sampling and reporting for wastewater discharge.
- By providing technical and compliance assistance to operators to avoid noncompliance, or to come back into compliance when there has been a violation of a wastewater discharge permit or authorization.

What are your next steps for learning about the Wastewater Discharge Authorization and APDES Program?

Please review the wastewater discharge authorization for your community. Please reach out if you need help finding a copy of your authorization. Your authorization includes sampling and reporting requirements to ensure that the conditions of your permit are met.

When should you contact the Wastewater Discharge Authorization and APDES Program?

- New utility managers and operators should contact the Domestic and Municipal Wastewater Permitting and Compliance Programs to introduce themselves and receive guidance on sampling and reporting requirements.
- Your utility operators should follow the requirements of your wastewater discharge authorization to submit regular reports and sample results.
- In the event of an unauthorized discharge or a failure of the wastewater treatment process that leads to the discharged wastewater being outside of permit requirements. Permit violations of any kind must be reported as described in the permit.
- Assistance is available at: https://dec.alaska.gov/water/compliance/permittee/

How to contact the Wastewater Discharge Authorization and APDES Program

For any questions about your wastewater discharge permit and authorization, contact Earl Crapps:

Phone: 907-465-5364

contact Jon Wendel:

• Email: earl.crapps@alaska.gov

• Email: jon.wendel@alaska.gov

https://dec.alaska.gov/water/compliance/

For any questions about the APDES Program,

https://dec.alaska.gov/water/wastewater/

Phone: 907-269-7681

Environmental Data Management System (EDMS)

What Is EDMS?

The Wastewater Discharge Authorization and APDES Program has transitioned to a new online system called the Environmental Data Management System (EDMS) and Customer Service Portal.

- EDMS replaces the DEC Online Application System (OASys) for online form submissions.
- You can visit the EDMS information page by scanning this QR code, or use the URL: https://dec.alaska.gov/water/edms



How do I sign up for an EDMS Account?

You can sign up for an EDMS Account by scanning the QR code or use the URL: https://dec.alaska.gov/Applications/Water/EDMS/ncore/external/home

With an account, you can:

- Apply for permits
- Manage your permits (pay fees, request a renewal, modification, transfer, or permit termination)
- Submit reports required by your permit
- Request online access to a site for which you are responsible



What information can I find on EDMS?

You can view information about current and historical permits, inspections, and compliance actions can be viewed using the **EDMS Site Explorer map tool**. If you needed to apply for a permit or manage data for your community, sign up for an EDMS account.

You can visit the EDMS Site Explorer Map by scanning this QR code or use the

URL: https://dec.alaska.gov/Applications/Water/EDMS/nsite/map/help



EDMS Assistance

For any questions about EDMS or if you need technical assistance, you can submit a Help Request to:

edms.help@alaska.gov

Please include a phone number where you can be reached for assistance.

Net DMR

What Is Net DMR?

NetDMR is a Web-based tool that allows you to electronically sign and submit discharge monitoring reports (DMRs). At this time all DMRs must be submitted electronically through NetDMR. Paper submittals will no longer be accepted.

You can visit DEC's NetDMR information page by scanning the QR code above, or use the URL: https://dec.alaska.gov/water/compliance/electronic-reporting-rule

On this page you can register for NetDMR and will find a NetDMR User Guide and Support Portal.

NetDMR and Training

Alaska is using EPA's instance of the NetDMR program. EPA's tools are web-based and require only a computer, an Internet browser, and high-speed internet access. These tools communicate securely, requiring passwords and known responses to security questions. They are designed to provide electronic submittals with the same level of legal dependability as paper submittals.

Alaska NETDMR User Guide 2022(PDF)

DEC encourages APDES permittees to attend EPA's nationally scheduled training webinars as well as utilize system tips, tools, and other useful self-reporting guidance documents.

Enter the NetDMR
Support Portal

Register for NetDMR

NetDMR Assistance

For any questions about NetDMR or if you need technical assistance, you can submit a Help Request to: (907) 465-5353 or decnetdmr@alaska.gov. Please include a phone number where you can be reached for assistance.

ADEC Solid Waste Program

What is the Solid Waste Program?

The Solid Waste Program is part of the Alaska Department of Environmental Conservation's Environmental Health Division. They regulate health and compliance at solid waste (landfill) facilities through a combination of design review, permits, inspections, monitoring, and compliance assistance.

How can the Solid Waste Program assist your community?

- By providing guidance on permit applications, landfill planning, operation and management, assisting with identifying grants for solid waste projects, helping draft ordinances and solid waste fee structures, and developing public outreach materials.
- By providing tools and guidance for solid waste operators and managers.
- By assisting communities with planning for future solid waste needs.

What are your next steps for learning about the Solid Waste Program?

Please review your **landfill permit** for your community. Your permit includes important conditions about separating, disposing, and burning different types of solid waste. This binder also includes a **monthly visual monitoring template** that you can use to regularly assess the operation of your landfill. Contact your assigned Solid Waste Program specialist if you have any questions.

Permits need to be renewed every 5 years. Operations Plans for your facility must also be reviewed and updated at least every five years and be submitted with your permit renewal application. If the attached permit is expired, use the SWIMS search feature below to download a copy of your new one. If your landfill is not permitted, please reach out to the Solid Waste Program.

When should you contact the Solid Waste Program?

- New solid waste utility managers and operators should contact the Solid Waste Program to introduce themselves and receive guidance on permit requirements and landfill best practices.
- If you have questions about the requirements of your landfill permit or if your landfill is not permitted.
- If you need training, contact your Solid Waste program specialist to learn about opportunities near you.
- If your landfill is approaching capacity or if you are expecting a construction or renovation project to produce a large amount of waste, contact the Solid Waste Program to discuss your options.

How to contact the Solid Waste Program:

To find your assigned Solid Waste Program staff, check the **Contact Information Page** of this binder. For generic questions about the Solid Waste Program, contact Rebecca Colvin:

• Phone: 907-269-7802

• Email: rebecca.colvin@alaska.gov

https://dec.alaska.gov/eh/solid-waste/



ADEC Solid Waste Program

https://dec.alaska.gov/eh/solid-waste/waste-in-rural-alaska/

On this webpage, the Solid Waste Program provides information about landfill management tools, landfill permits, solid waste trainings and your Landfill Specialist contacts, along with other helpful program features.

WASTE IN RURAL COMMUNITIES

We work with rural communities to ensure safe solid waste management to protect both public health and the environment. This includes conducting inspections, permitting landfills, providing training, and offering **free** technical assistance! We are here to help you and your community with your solid waste needs.



Prevent major seasonal events from impacting your landfill.

Technical Assistance



Our free assistance is available on a variety of topics.

Landfill Permits



We can help you obtain or renew your permit.

Landfill Operator Tools



We have created guidance and templates to help you and your landfill.

Solid Waste Trainings



Both online and in-person trainings are offered by multiple entities.

Find Your Landfill Specialist



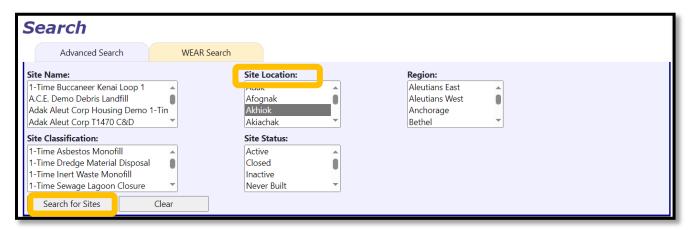
We have five specialists dedicated to rural communities.

How Do I?

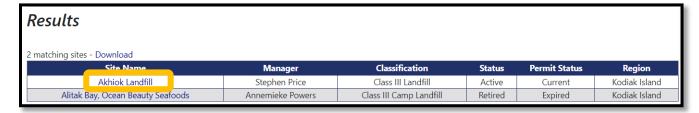
Search for My Landfill Permit?



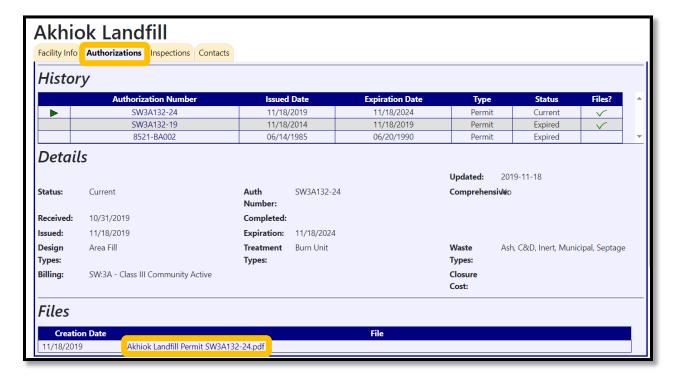
- 1. Scan the QR code above or use the URL: https://dec.alaska.gov/Applications/EH/SWIMS/Default.aspx
- 2. This example is for the Akhiok Landfill.
 - Scroll through the "Site Location" column and select your community.
 - Click "Search for Sites"



3. Click on your community's landfill in the *Results* section.



4. On the "Authorizations" tab, you can view current and expired permits and download a copy of your permit from the *Files* section.



5. While on the SWIMS database, you can also view facility information, review the inspections conducted by DEC at your landfill, and review your community's primary contact. Note that if the primary contact is not accurate, please contact your Solid Waste specialist to have it updated.

DCCED Rural Utility Business Advisor (RUBA) Program

What is the RUBA Program?

The Rural Utility Business Advisor (RUBA) Program is part of the Alaska Department of Commerce, Community & Economic Development. RUBA's goal is to support rural communities in their efforts to build and maintain managerial and financial capacity necessary to safely operate and maintain their water and wastewater utilities. The program offers capacity building assistance to the governing bodies and staff of rural utilities throughout the state. The RUBA Program is staffed by Local Government Specialists (LGS), and each community is assigned to an LGS. The program is advisory only; travel and assistance is at the request of local or city staff.

How can the RUBA Program assist your community?

- By providing onsite and remote managerial and financial training and technical assistance to utility managers and staff, including training with bookkeeping and budgeting.
- By providing a series of nine management trainings to utility managers and staff, including trainings for clerks, elected officials, and bookkeepers.
- By identifying the strengths and weaknesses of your current utility management plan and offering guidance on making improvements.
- By providing expert QuickBooks onsite assistance, training, and access to a help line.
- By partnering with the Department of Environmental Conservation on the Operations and Maintenance Best Practices to assess the capacity of rural water and wastewater utilities.

What are your next steps for learning about RUBA?

RUBA can assist you with your financial and organizational reporting and with training. **Helpful templates can be found at the <u>RUBA Best Practices Toolkits</u> and Documents webpage.** Your LGS will identify areas that need improvement and help you develop strategies to improve your managerial and financial capacity. Please contact them to see if your community is up to date with your documentation and has sustainable management and financial plans.

When should you contact the RUBA Program?

- Any time there is a new utility manger, clerk, board member, or bookkeeper.
- When your utility needs assistance with financial or managerial issues, including bookkeeping, budgeting, utility board policies, personnel management, or elections.
- To improve your Best Practices score, utility or city staff should send in monthly meeting minutes, operator reports, the budget, and monthly financials to RUBA staff.

https://www.commerce.alaska.gov/web/dcra/RuralUtilityBusinessAdvisorProgramRUBA.aspx

Contact the RUBA Program

Do you need Local Government Assistance or Utility Management support?

To find your assigned RUBA staff, check the **Community Water/Sewer Improvement Contact List** discussed in Section 2 of this binder. You can also scan this QR code to submit a request for help to the RUBA Program and an LGS will reach out to you directly:



Do you need help with QuickBooks or Payroll Taxes?

Call the QuickBooks Help Line at **(907) 440-0242** or email **qb.helpline@gmail.com**. The Help Line is open the following days and times:

Mondays: 10am to 3pm
Tuesdays: 10am to 3pm
Thursdays: 10am to 3pm

Sign up for RUBA Notices

Scan this QR code to sign up for RUBA notices, including Best Practices reminders, funding opportunities, and training opportunities:



How Do I?

Access RUBA Templates and Example Documents



 Scan the QR code above or use the URL: https://www.commerce.alaska.gov/web/dcra/LocalGovernmentResourceDesk/B estPracticesToolkit.aspx



2. While on that web page, <u>scroll down</u> to where it says "Documents". This section has the links to the RUBA utility and management templates and models. You can click on the topic you are interested in, and it will take you to the selected template or the model document.

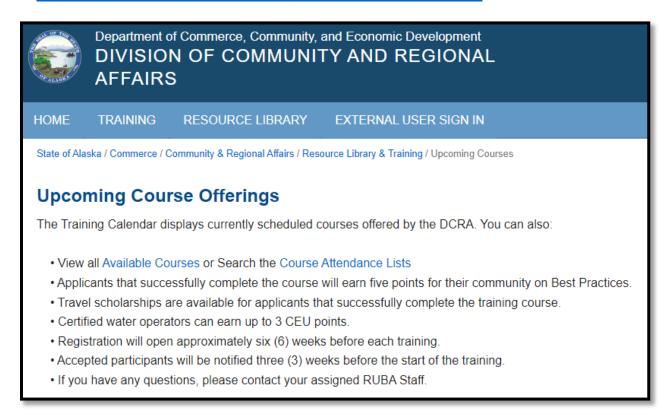
Best Practices Category	RUBA Templates	RUBA Model Docs
	RIFICAL UTILITY SUSINESS ADVISOR TEMPLATES	RUBA RURAL UTILITY MODEL DOCS
Managerial – Meetings		Model - Meetings Code Language
Managerial – Meetings	Template - Minutes - City	Model - Minutes - City
Managerial – Meetings	Template - Water Operator Report	Model - Water Operator Report
General	Template - Code Ordinance	
General	Template - Resolution	
Financial – Budget	Budget Manual	
Financial – Budget		Model - Utility Budget
Financial – Budget	Template - Budget Ordinance	Model - Budget Ordinance
Financial – Budget & Revenue	Template - Tribal Budget & Financial Report	
Financial – Revenue	Template - City Financial Report	Model - City Financial Report
Financial – Revenue		Model - Utility Monthly Financial Report
Financial – Revenue		Model - R&R Report

How Do I?

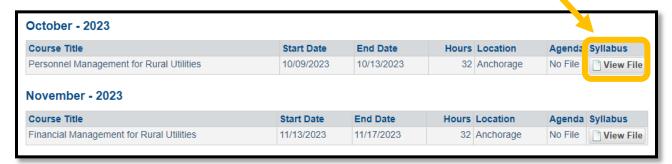
Find RUBA Trainings Available In-Person or Online

 Scan the QR code above or use the URL: https://www.commerce.alaska.gov/dcra/admin/Training





2. To see if a course is right for you, you can click on "View File" Under the Syllabus tab for detailed course information.



3. Contact your LGS if you see a course that you would like to attend.

City of ABC Monthly Finances	FY2018 BUDGET	JUL	AUG	SEP	ост	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Year-to Date	Balance
Prior Year Cash Balance	86,838														
Heating Fuel Asset (in cash)	52,750	894	1,991	200	-	164	-	-	-	-	-	-	-	3,250	49,500
Heating Fuel Asset (in gallons)	17,642	299	666	67		55								1,087	16,555
ADMINISTRATION & FINANCE INCOME															
Sales Tax (4%)	18,100	884	815	1,065	1,172	1,661								5,598	12,502
Rental Income	1,000		18											18	982
Room Rental Income	5,000		450		150	900								1,500	3,500
Reimbursements/Refunds	2,000		48			1,342								1,390	610
Tobacco Sales Tax	10,000	1,398	1,577	425	1,734	1,266								6,400	3,600
Tele Share (State of Ak)														-	-
Interest Income		0		5										5	(5)
Community Revenue Sharing (State)	77,000			80,327										80,327	(3,327)
Fish Tax (State of Alaska) payment	87													-	87
Payment in Lieu of Taxes (PILT) Payment	29,234	30,515												30,515	(1,281)
Fax, Copies and Scanning	30	9			3									12	18
Equipment Rental Income														-	-
Miscellaneous Inc.					100									100	(100)
TOTAL ADMINISTRATION & FINANCE															
INCOME	142,451	32,807	2,908	81,821	3,159	5,170	-	-	-	-	-	-	-	125,865	16,586
ADMINISTRATION & FINANCE EXPENSES															
Salaries	49,785	4,293	4,322	6,508	3,171	3,745								22,040	27,745
Payroll Taxes	5,705	392	399	601	293	341								2,025	3,680
Workers Comp	5,269													-	5,269
Liability Insurance	5,531													-	5,531
Legal/Consulting Fees	800													•	800
Travel/Airfare	2,000			666										666	1,334
Per Diem	1,500				799									799	701
Workshop/Training Fees	1,000			895										895	105
Telephone, Internet and Fax	4,100	535	530	839	510	331								2,745	1,355
Diesel/Heating Fuel	3,100		1,047	200										1,247	1,853
Electricity	3,500	67	428	179	212	100								986	2,514
Bank Service Charges	600	8	63	473	3	3								550	51
Supplies	2,600	551		127										678	1,922
Freight/Postage	500		25			26		-						50	450
Dues/Fees	1,100	46	26	46	42	40								200	900
Donations	500													-	500
Equipment/Parts/Repair	350													-	350
Building Maintenance	500		8											8	492
Gasoline/Motor Oil				44										44	(44)
TOTAL ADMIN. & FINANCE EXPENSES	88,440	5,892	6,847	10,577	5,030	4,586	-	-	-	_	-	-	-	32,932	55,508
ADMINISTRATION & FINANCE NET	54,011	26,915	(3,939)	71,245	(1,871)	584	-	-	-	-	-		-	92,934	(38,923)

City of ABC Monthly Finances	FY2018 BUDGET	JUL	AUG	SEP	ост	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Year-to Date	Balance
AVEC INCOME															
AVEC Plant Operator Pay (P.O.P)	42,000	10,621	5,203	4,811	7,119	15,504								43,257	(1,257)
AVEC EXPENSES															
Salaries	28,200	8,765	4,131	3,660	5,618	12,703								34,876	(6,676)
Payroll Taxes	2,869	809	381	338	519	1,172								3,219	(350)
Workers Comp														-	-
Liability Insurance														-	-
Legal/Consulting Fees														-	-
Travel/Airfare	2,880													-	2,880
Per Diem & Stipends	500													-	500
Workshop/Training Fees														-	_
Supplies														-	-
Dues/Fees														-	-
PERS Payroll Match														-	-
TOTAL AVEC EXPENSES	34,449	9,574	4,512	3,998	6,136	13,875	-	-	-	-	-	-	-	38,095	(3,646)
AVEC NET	7,551	1,047	691	813	983	1,629	-	-	-	-	-	-	-	5,163	2,389
CITY COUNCIL EXPENSES															
Salaries (Members Stipends)	10,000	340	1,720	580	1,420	1,080								5,140	4,860
Payroll Taxes	650	26	136	44	109	83								398	252
Legal/Consulting Fees	1,300													-	1,300
Travel/Airfare	500													-	500
Per Diem	600													-	600
Diesel/Heating Fuel														-	-
Workshop/Training Fees														-	-
Supplies	400	28												28	372
Freight/Postage														-	-
Dues/Fees	1,800													-	1,800
Elections	1,800				350									350	1,450
TOTAL COUNCIL EXPENSES	17,050	394	1,856	624	1,879	1,163	-	-	-	-	-	-	-	5,916	11,134
PUBLIC SAFETY EXPENSES														-	-
Salaries														-	-
Payroll Taxes														-	-
Workers Comp														-	-
Donation														-	-
Liability Insurance														-	-
Diesel/Heating Fuel														-	-
TOTAL PUBLIC SAFETY EXPENSES		-	-	-	-	-	-	-	-	-	-	-	-	-	-

Oite of ADO Monthly Finance	FY2018													Year-to	Dalamas
City of ABC Monthly Finances	BUDGET	JUL	AUG	SEP	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Date	Balance
WASHETERIA INCOME															
Washeteria Income	58.200	4.380	3.598	4.238	4,747	4.649								21,612	36,588
Reimbursements/Refunds	00,200	1,000	0,000	1,200	1,7 17	1,010									-
TOTAL WASHETERIA INCOME	58,200	4,380	3,598	4,238	4,747	4,649	-			-	_	-	-	21,611	36,589
WASHETERIA EXPENSES		·				•									·
Salaries	21,575	1,008	1,369	1,321	1,101	1,597								6,396	15,179
Payroll Taxes	2,654	93	126	122	102	147								590	2,064
Workers Comp														-	
Liability Insurance														-	-
Legal/Consulting Fees														-	
Travel/Airfare														-	
Per Diem														-	-
Workshop/Training Fees	600													-	600
Electricity	3,500													-	3,500
Diesel/Heating Fuel	3,500	581												581	2,919
Supplies	2,000	568		13		495								1,076	924
Freight/Postage	200		500			57								557	(357)
Dues/Fees														-	-
Equipment, Part and Repair	2,500			189										189	2,311
Building Maintenance	1,500	19	915											934	566
TOTAL WASHETERIA EXPENSES	38,029	2,270	2,911	1,644	1,203	2,297	ı	ı	ı	•	-	-		10,324	27,705
WASHETERIA NET	20,171	2,110	687	2,593	3,544	2,352	-	1	1	-	-	-	-	11,287	8,884

City of ABC Monthly Finances	FY2018 BUDGET	JUL	AUG	SEP	ост	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Year-to Date	Balance
WATER AND SEWER INCOME															
Water/Sewer Income	40,000	2,506	3,678	3,348	4,012	2,914								16,458	23,542
Water/Sewer Commerical	7,000	1,230	7,365	1,034	940	528								11,097	(4,097)
TOTAL WATER AND SEWER INCOME	47,000	3,736	11,043	4,381	4,952	3,442	-	-	-	-	-	-	-	27,555	19,445
WATER AND SEWER EXPENSES															
Salaries	46,043	3,594	4,509	3,956	3,808	4,160								20,027	26,016
Payroll Taxes	5,394	332	416	365	351	384								1,849	3,546
Workers Comp														-	_
Liability Insurance															-
Legal/Consulting Fees	200													-	200
Travel/Airfare	2,000			550										550	1,450
Per Diem	2,000													-	2,000
Diesel/Heating Fuel	12,500	313	945			164								1,422	11,078
Workshop/Training Fees	1,000	100												100	900
Telephone, Internet and Fax														-	_
Electricity	5,000	351			109	405								866	4,134
Supplies	3,000	38	585	458	140	92								1,312	1,688
Freight/Postage	2,000		50	45	55	25								174	1,826
Dues/Fees	500			150		30								180	320
Equipment/Parts/Repair	22,000	114		719	1,520	700								3,053	18,947
Building Maintenance	1,500		314		1,0-0	963								1,277	223
Gasoline/Motor Oil	1,500	117		244		133								494	1,006
Chemicals	4,000													-	4.000
Water Testing/Lab Fees	3,000	50		100	50	225								425	2,575
TOTAL WATER AND SEWER EXPENSES	111,637	5,008	6,819	6,587	6,034	7,281	-							31,729	79,909
WATER AND SEWER NET	(64,637)	(1,272)	4,224	(2,205)	(1,082)	(3,839)	-	-	-	-	-	-	-	(4,174)	(60,463)
THE TARBUTATION IN THE TARBOT TO THE TARBOT THE TARBOT TO	(04,037)	(1,212)	4,224	(2,205)	(1,002)	(3,039)	-	-	-	-	-	-	-	(4,174)	(60,463)
SUMMARY															
TOTAL INCOME	289,651	51,544	22,752	95,251	19,977	28,765	-	-	-	-	_	-	-	218,289	71,362
TOTAL EXPENSES	289,605	23,137	22,944	23,430	20,282	29,202	-	-	-	-	-	-	-	118,995	170,610
BALANCE	46	28,407	(193)	71,821	(305)	(437)	-	-	-	-	-	-	-	99,294	(99,248)
		,	, -7	,	, -7	, ,									



	City of(name)
	Regular City Council Meeting
	(date & time)
	Meeting Minutes
1.	Call to Order
2.	Roll Call Council present: Council absent/excused: Council absent/unexcused: Staff present: Public present:
3.	Approval of Agenda •
4.	Public Comment •
5.	Approval of Previous Meeting Minutes •
6.	Reports (list each department & discuss each report, including but not limited to) Manager/Administrator report: Water/Wastewater utility report: Monthly financial report:
7.	Public Hearings •
8.	Old Business •
9.	New Business •
10.	Adjourn

Attested:	
Mayor (enter name)	Date
City Clerk (enter name)	Date

ADEC Capacity Development (CapDev) Program

What is the CapDev Program?

The Capacity Development program is a part of the Alaska Department of Environmental Conservation's Water Division. The program is responsible for reviewing the capacity of new water systems and assisting the existing public water systems acquire and maintain the capacity to sustain their operations. Capacity refers to the technical, managerial, and financial (**TMF**) abilities of a utility in delivering safe drinking water while protecting public health and the environment.

How can the CapDev Program assist your community?

- By assessing the financial capacity of new systems and/or existing systems with proposed substantial system modification which requires DEC operational approval.
- By providing helpful tools and reference guides to assist water and wastewater systems acquire
 and maintain TMF capacity. Some of the tools include informational welcome packets for
 community leaders and new utility operators, water sampling reference guides, and rural
 community reminder calendars.
- By encouraging and assisting utilities with their asset management plan development.
- By coordinating outreach and assistance efforts with federal, state, and other agencies on systems' TMF capacity needs.

What are your next steps for learning about the CapDev Program?

Your water and wastewater systems are required to acquire and maintain the technical, managerial, and financial capacity to sustain effective system operations that protect the public health and environment. During water and wastewater operations, it is important to maintain assistance partnership with the CapDev program to ensure the capacity requirements are maintained and delivered. You may contact program staff or access the website for helpful tools, links, and guidance.

When should you contact the CapDev Program?

- When there is a new operator or utility manager.
- When you need assistance in asset management plan development.
- When you need capacity assistance reference materials.
- When you need CCR report writing assistance.

How to contact the CapDev Program:

For any questions about the CapDev Program, contact Fatima Ochante:

Phone: 907-451-2106

• Email: fatima.ochante@alaska.gov

https://dec.alaska.gov/water/technical-assistance-and-financing/capacity-development/

Asset Management Resources

What Is Asset Management?

Your water system is made up of many different components or assets, like land, equipment, buildings, and staff, needed to deliver safe and clean water. Asset management is a tool that you can use to decide how and where to spend money on these assets. The goal is to provide the level of service people want while keeping costs low in the long run. There are five key concepts: first, knowing and keeping track of what you have (Asset Inventory); second, ensuring the water system works the way people expect it to (Level of Service); third, figuring out which parts are most important and need special attention (Criticality); fourth, planning for the costs over the entire lifespan of these assets (Life Cycle Costing); and finally, making sure there's always enough money set aside for future needs (Long-Term Funding). Asset management is a strategic plan to make sure your water system is efficient, effective, and sustainable over time.

Where Can I Find Asset Management Resources?

Asset Management Switchboard

https://swefcamswitchboard.unm.edu/am/

This page will provide you with information about asset management and resources to learn more about specific topics, like how to get started with an asset management plan.



Rural Community Assistance Corporation (RCAC) Asset Inventory Worksheet https://www.rcac.org/tools/

This page includes an Asset Inventory Worksheet that you can use to create an asset inventory for your system.



Water system financial management tools

- Simplified Capital Improvement Plan
- Asset Inventory Worksheet (Version 13)
- Financial Toolbox (Version 10.3)
- Scheduled Maintenance (Version 6)
- · Water Audit Worksheet
- Water Use Calculator (Zip file)

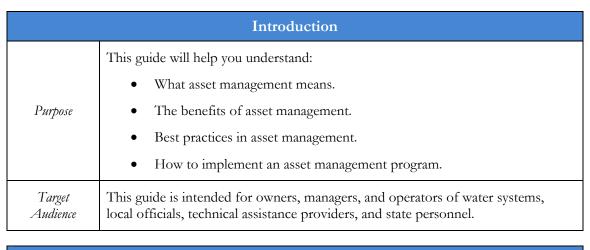
More tools and resources can be found under Guidebooks.

Asset Management Assistance

If you have questions about asset management planning or resources, contact the CapDev Program at: dec.capacity.development@alaska.gov



Asset Management: A Best Practices Guide



Asset Management

Asset management is maintaining a desired level of service for what you want your assets to provide at the lowest life cycle cost. Lowest life cycle cost refers to the best appropriate cost for rehabilitating, repairing or replacing an asset. Asset management is implemented through an asset management program and typically includes a written asset management plan.

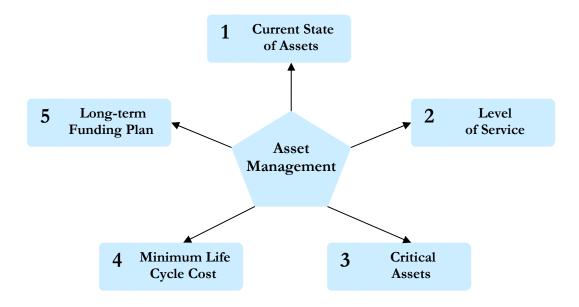
Challenges faced by Water Systems	Benefits of Asset Management
 Determining the best (or optimal) time to rehabilitate/repair/replace aging assets. Increasing demand for services. Overcoming resistance to rate increases. Diminishing resources. Rising service expectations of customers. Increasingly stringent regulatory requirements. Responding to emergencies as a result of asset failures. Protecting assets. 	 Prolonging asset life and aiding in rehabilitate/repair/replacement decisions through efficient and focused operations and maintenance. Meeting consumer demands with a focus on system sustainability. Setting rates based on sound operational and financial planning. Budgeting focused on activities critical to sustained performance. Meeting service expectations and regulatory requirements. Improving response to emergencies. Improving security and safety of assets

Implementing Asset Management: Five Core Questions Framework

A good starting point for any size water system is the five core questions framework for asset management. This framework walks you through all of the major activities associated with asset management and can be implemented at the level of sophistication reasonable for a given system. These five core framework questions provide the foundation for many asset management best practices. Several asset management best practices are listed for each core question on the following pages. Keep in mind that these best practices are constantly being improved upon.



Flow Chart: The Five Core Questions of Asset Management Framework



This flow chart shows the relationships and dependencies between each core framework question.

1. What is the current state of my system's assets?

The first step in managing your assets is knowing their current state. Because some of this information may be difficult to find, you should use estimates when necessary. Over time, as assets are rehabilitated, repaired or replaced, your inventory will become more accurate.

You should ask:

- What do I own?
- Where is it?
- What is its condition?
- What is its useful life?
- What is its value?

Best practices include:

- Preparing an asset inventory and system map.
- Developing a condition assessment and rating system.
- Assessing remaining useful life by consulting projected-useful-life tables or decay curves.
- Determining asset values and replacement costs.

2. What is my required "sustainable" level of service?

Knowing your required "sustainable" level of service will help you implement an asset management program and communicate to stakeholders what you are doing. Quality, quantity, reliability, and environmental standards are elements that can define level of service and associated system performance goals, both short- and long-term. You can use information about customer demand, data from utility commissions or boards, and information from other stakeholders to develop your level of service requirements. Your level of service requirements can be updated to account for changes due to growth, regulatory requirements, and technology improvements.

You should ask:

- What level of service do my stakeholders and customers demand?
- What do the regulators require?
- What is my actual performance?
- What are the physical capabilities of my assets?

Best practices include:

- Analyzing current and anticipated customer demand and satisfaction with the system.
- Understanding current and anticipated regulatory requirements.
- Writing and communicating to the public a level of service "agreement" that describes your system's performance targets.
- Using level of service standards to track system performance over time.

3. Which assets are critical to sustained performance?

Because assets fail, how you manage the consequences of failure is vital. Not every asset presents the same failure risk, or is equally critical to your water system's operations. Therefore, it is important to know which assets are required to sustain your water system's performance. Critical assets are those you decide have a high risk of failing (old, poor condition, etc.) and major consequences if they do fail (major expense, system failure, safety concerns, etc.). You can decide how critical each asset is and rank them accordingly. Many water systems may have already accomplished this type of analysis in vulnerability assessments.

You should ask:

- How can assets fail?
- How do assets fail?
- What are the likelihoods (probabilities) and consequences of asset failure?
- What does it cost to repair the asset?
- What are the other costs (social, environmental, etc.) that are associated with asset failure?

Best practices include:

- Listing assets according to how critical they are to system operations.
- Conducting a failure analysis (root cause analysis, failure mode analysis).
- Determining the probability of failure and listing assets by failure type.
- Analyzing failure risk and consequences.
- Using asset decay curves.
- Reviewing and updating your system's vulnerability assessment (if your system has one).

4. What are my minimum life cycle costs?

Operations and maintenance (O&M), personnel, and the capital budget account for an estimated 85 percent of a typical water system's expenses. Asset management enables a system to determine the lowest cost options for providing the highest level of service over time. You want to optimize the work O&M crews are doing, where they are doing it, and why. An asset management program helps make risk-based decisions by choosing the right project, at the right time, for the right reason.

You should ask:

- What alternative strategies exist for managing O&M, personnel, and capital budget accounts?
- What strategies are the most feasible for my organization?
- What are the costs of rehabilitation, repair, and replacement for critical assets?

Best practices include:

- Moving from reactive maintenance to predictive maintenance.
- Knowing the costs and benefits of rehabilitation versus replacement.
- Looking at lifecycle costs, especially for critical assets.
- Deploying resources based on asset conditions.
- Analyzing the causes of asset failure to develop specific response plans.

5. What is my best long-term funding strategy?

Sound financial decisions and developing an effective long-term funding strategy are critical to the implementation of an asset management program. Knowing the full economic costs and revenues generated by your water system will enable you to determine your system's financial forecast. Your system's financial forecast can then help you decide what changes need to be made to your system's long-term funding strategy.

You should ask:

- Do we have enough funding to maintain our assets for our required level of service?
- Is our rate structure sustainable for our system's long-term needs?

Some strategies to consider:

- Revising the rate structure.
- Funding a dedicated reserve from current revenues (i.e., creating an asset annuity).
- Financing asset rehabilitation, repair, and replacement through borrowing or other financial assistance.

Implementing Asset Management: Follow-up and Continuing Steps

The five core questions framework for asset management is the starting point for asset management. Beyond planning, asset management should be implemented to achieve continual improvements through a series of "plan, do, check, act" steps.

- Plan: Five core questions framework (short-term), revise asset management plan (long-term).
- Do: Implement asset management program.
- Check: Evaluate progress, changing factors and new best practices.
- Act: Take action based on review results.

For additional information: Call the Safe Drinking Water Hotline at 1-800-426-4791, visit the EPA Web site at http://www.epa.gov/safewater/smallsystems or contact your state drinking water representative.

Operations & Maintenance Best (O&M) Practices

https://dec.alaska.gov/water/technical-assistance-and-financing/best-practices/

What is O&M Best Practices?

Operations & Maintenance Best Practices is a set of criteria used to assess the capacity of rural water and wastewater utilities. Communities are evaluated against each criterion and assigned a numerical score. The scoring criteria were developed by the Alaska Department of Environmental Conservation's Village Safe Water and Remote Maintenance Worker Programs, in collaboration with the Department of Commerce, Community & Economic Development, Rural Utility Business Advisor Program, and the Alaska Native Tribal Health Consortium.

What are the O&M Best Practices Scoring Criteria?

Best Practices scores are meant to evaluate a utility's capacity to provide sustainable service. Best Practices scoring is based on three overall categories: Technical, Managerial, and Financial. Included in these categories are a total of nine criteria. Please see the attached Best Practices scoring criteria document for more details about the criteria. The criteria are scored by staff in several state programs:

- Operator Certification Program staff are responsible for scoring the Operator Certification criteria.
- Remote Maintenance Worker Program staff are responsible for scoring the Preventative Maintenance Plan criteria.
- Drinking Water Program staff are responsible for scoring the Compliance criteria.
- Rural Utility Business Advisor Program staff are responsible for scoring the Utility Management Training, Meetings of the Governing Body, Budget, Revenue, Worker's Compensation, and Payroll/Tax Liability Compliance criteria.

How does O&M Best Practices Scoring affect project ranking for funding?

Best Practice score accounts for 40% of the points possible for Capital Improvement Project (CIP) scoring. This is an important source for rural utilities to fund water and sewer projects. The most effective way to increase your community's chance of receiving this project funding is by improving your Best Practices score. The most effective way to increase your Best Practices score is by working with your assigned staff in the programs you will read about in this quick reference guide.

How can you get more information about O&M Best Practices Scoring?

Contact the Capacity Development Program for more information about your Best Practices score. When you improve your Best Practices score, you are also improving capacity of your utility to provide service to your community!

How Do I?



To find the most recent copy of your Best Practices score, you can follow the steps below.



- 1. Scan the QR code above or use the URL: https://dec.alaska.gov/water/technical-assistance-and-financing/best-practices
- **2.** Scroll down to the bottom of the page:

Fall 2023 Best Practices Scores

Select a community from the tabs below to see the Fall 2023 Best Practices Score:



Previous Best Practices Scores

See Best Practices Scores from previous scoring periods.

3. You can find both your most current score and previous year scores in this section of the website.

	Category	Best Practice	Points
	Operator Certification	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
		Primary operator is certified to the level of the water system and the backup	5
		operator holds no certification or there is no backup operator Utility has one or more operators certified at some level in water treatment or	
		distribution	3
ica		Utility has no certified operators	0
Technical	Preventive Maintenance Plan	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
Te		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
	Compliance	Utility had no Monitoring and Reporting violations during the past year	10
		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
	Utility	A person who holds a position of responsibility for management of the utility has	
al	Management	completed a DCRA approved Utility Management course or other utility	5
eri	Training	management training course within the last five years	
Managerial	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
Mai		The utility owner's governing body meets routinely consistent with the local	2
		ordinance/bylaw requirements The utility owner's governing body does not meet	0
		Total Managerial Points	10
		Utility owner and the Utility have each adopted a realistic budget and budget	-
		amendments are adopted as needed; Accurate monthly budget reports are	
			15
		prepared and submitted to the governing body Fither the Utility or the Utility owner has adopted and implemented a budget	
	Budget	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not	15
	Budget	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being	
	Budget	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not	13
	Budget	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented	13 10 0
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Financial	Revenue Worker's Compensation	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented Utility owner and the Utility have not adopted a budget Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account Utility is collecting revenue sufficient to cover expenses Utility has a fee schedule and a collection policy that is followed Utility has no fee structure or collection policy Utility has had a workers' compensation policy for all employees for the past two	13 10 0 20 15 5 0
Financial	Revenue Worker's	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented Utility owner and the Utility have not adopted a budget Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account Utility is collecting revenue sufficient to cover expenses Utility has a fee schedule and a collection policy that is followed Utility has no fee structure or collection policy Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place	13 10 0 20 15 5 0
Financial	Revenue Worker's Compensation Insurance	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented Utility owner and the Utility have not adopted a budget Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account Utility is collecting revenue sufficient to cover expenses Utility has a fee schedule and a collection policy that is followed Utility has no fee structure or collection policy 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	13 10 0 20 15 5 0 5
Financial	Revenue Worker's Compensation	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented Utility owner and the Utility have not adopted a budget Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account Utility is collecting revenue sufficient to cover expenses Utility has a fee schedule and a collection policy that is followed Utility has no fee structure or collection policy Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has no workers' compensation policy in place for all employees Utility has no workers' compensation policy	13 10 0 20 15 5 0 5 2 0
Financial	Revenue Worker's Compensation Insurance Payroll	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented Utility owner and the Utility have not adopted a budget Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account Utility is collecting revenue sufficient to cover expenses Utility has a fee schedule and a collection policy that is followed Utility has no fee structure or collection policy Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has no workers' compensation policy in place for all employees 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	13 10 0 20 15 5 0 5 2 0 5
Financial	Revenue Worker's Compensation Insurance Payroll Liability	Either the Utility or the Utility owner has adopted and implemented a budget, the other has not Either the Utility or the Utility owner has adopted a budget, but it is not being implemented Utility owner and the Utility have not adopted a budget Utility is collecting revenue sufficient to cover the Utility's operating expenses and to contribute to a repair and replacement account Utility is collecting revenue sufficient to cover expenses Utility has a fee schedule and a collection policy that is followed Utility has no fee structure or collection policy Utility has had a workers' compensation policy for all employees for the past two years and has a current policy in place Utility has no workers' compensation policy in place for all employees 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	13 10 0 20 15 5 0 5 2 0 5 2