



Champion a healthy environment for a thriving Montana

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**Report to the Governor**  
**Federal Safe Drinking Water Act**  
**Capacity Development Strategy**  
**July 1, 2020 through June 30, 2023**

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This report is available to the public through the MTDEQ PWS Capacity Development webpage.

[Capacity Development | Montana DEQ \(mt.gov\)](https://mt.gov/deq/pws-capacity-development)

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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY.....</b>	<b>4</b>
<b>I. Introduction.....</b>	<b>6</b>
<b>II. Prioritization of assistance.....</b>	<b>7</b>
<b>III. Funding.....</b>	<b>8</b>
<b>IV. Efficacy, progress, and encouragement.....</b>	<b>8</b>
<b>V. Commonly identified problems and solutions.....</b>	<b>10</b>
<b>VI. Summary.....</b>	<b>11</b>

## EXECUTIVE SUMMARY

This report is presented by the Montana Department of Environmental Quality (MTDEQ) Public Water Supply Bureau (PWSB) in fulfillment of the requirements of the Safe Drinking Water Act. The report is published triennially and is intended to provide an overview of program activities in support of building technical, managerial, and financial capacity among drinking water systems across the great state of Montana.

MDEQ PWSB has always supported technical, managerial and financial assistance to systems in need since the origin of our PWS program. We have also continually met established EPA requirements outlined under the Safe Drinking Water Act (SDWA) Amendments of 1996 (section 1420) and met all additional requirements outlined under the SDWA Amendments of 2018. The following points summarize progress made during the reporting period July 1, 2020, through June 30, 2023:

- **Establish a Capacity Development Coordinator (CDC) position:** The new CDC position also serves as the Area Wide Optimization (AWOP) lead and State Technical Assistance Specialist for the MDEQ PWSB. The CDC position was filled in January of 2022 by a senior field inspector and has been directly involved in the resolution of 13 critical compliance issues that has helped maintain safe drinking water and saved a significant amount of money for Montana PWS systems. The CDC is an active participant in the Drinking Water State Revolving Fund (DWSRF) engineer project meetings, DWSRF Advisory Committee, Water, Wastewater, and Solid Waste Action Coordinating Team (W2ASACT), TMF contract management, EPA regulatory meetings, ASDWA meetings, Montana AWOP lead, and serves as technical specialist to resolve persistent public water supply issues. The capacity development position has been so successful to this point that the MTDEQ Capacity Development Coordinator received an invite to have lunch with the Governor, earned a Directors Coin for program achievements, and has recently been selected to receive a 2023 Governor's Award for Excellence in Performance. The success of the new Capacity Development Coordinator position has gathered enough managerial support to justify a second Capacity Development position based in Helena to help meet demand and improve coverage. MTDEQ hopes to have the second Capacity Development position filled before the end of 2023.
- **Update the Montana Capacity Development Strategy:** The Montana Capacity Development Strategy was updated in 2022 as required by the America's Water Infrastructure Act (AWIA) of 2018 to include asset management components. Failure to update the state Capacity Development Strategy would have resulted in a 20% reduction of SRF funding, which is approximately \$12M in fiscal year 2023. These funds provide critical financial support for water system projects across Montana.
- **Development of CDC professional skill set:** The Capacity Development Coordinator has earned an Asset Management Certificate from Virginia Tech to improve his knowledge base and effectiveness when working with PWS systems.
- **Creation of new innovative facility-based training for operators:** This program is designed to provide an opportunity for operators to earn continuing education credits during technical assistance visits at their own systems through approved training providers. MTDEQ PWSB hopes to reduce systems annual training costs, improve

training quality that is specific to each individual system, document critical operational information for system reference, and expand the partnership between MTDEQ and other technical assistance entities across our large rural state.

- **Creation of a Capacity Development webpage:** [Capacity Development | Montana DEQ \(mt.gov\)](https://www.mt.gov/DEQ) The new Capacity Development webpage contains the current Capacity Development Strategy, current Annual Report, current Report to the Governor, program descriptions, capacity development/asset management resources, contact information, downloadable records book, and library of available technical assistance outlines for facility-based training.
- **Promotion of Capacity Development and Asset Management tools:** Every MTDEQ PWSB field staff includes a reference for capacity development and asset management within all sanitary survey cover letters, and the Capacity Development Coordinators' contact information is on the back of their business cards.
- **Area-Wide Optimization Program (AWOP):** MTDEQ PWSB have reinitiated participation in the AWOP process at the encouragement of EPA, and have participated in AWOP West workshops and the National AWOP Meeting. The MTDEQ PWSB AWOP program is intended to help water systems optimize performance within their PWS.

The following points summarize MTDEQ's continued efforts to prioritize technical, managerial, and financial support of all public water supply systems in accordance with the Safe Drinking Water Act Amendment of 1996.

- **Drinking Water State Revolving Fund (DWSRF) Capacity Assessments:** Submittal of capacity assessment worksheets continue to be required component for water systems applying for DWSRF monies to assure they have considered technical, managerial, and financial considerations.
- **Technical, managerial, and financial (TMF) capacity reviews for new PWS systems:** All new community and non-transient non-community public water supplies must complete DEQ-1 Appendix A to demonstrate they have considered technical, managerial, and financial considerations of operating a public water supply.
- **Educational outreach:** The MTDEQ Water and Wastewater Certification, PWSB staff, and technical assistance providers all contribute to operator exam preparation, technical assistance, and formal classroom training events.
- **Technical Assistance Providers:** Operations and maintenance contracts have been in place since May of 1999 and continue to provide valuable long-term and short-term technical assistance to water systems across Montana. Assistance provided through this contract includes, but is not limited to: Lead service line inventory education, GIS mapping, Operator training, Operator testing and Certification prep, Operator O&M training, Policies/procedures training and education, District formation, Income surveys, Water loss data collection/review/education, Bylaw reviews, Rate studies, Emergency Response Planning, Standard Operating Procedures training/manual development, Financial management education, Clerk software training, Water audit preparation, Loan document education, DEQ violation education, Board training, Leak detection, and Sample collecting education.

## I. Introduction

The Capacity Development Program was created under the Safe Drinking Water Act (SDWA) Amendments of 1996 (section 1420) to promote drinking water systems development of finances, management, infrastructure, and operations so they can provide safe drinking water consistently, reliably, and cost-effectively. More specifically, the capacity development provisions provide a flexible framework within which states and water systems can work together to ensure that systems acquire and maintain the technical, financial, and managerial capacity<sup>1</sup> to consistently achieve the health objectives of the 1996 SDWA.

Subsequently, America's Water Infrastructure Act of 2018 (AWIA) amended Section 1420(c) to add asset management<sup>2</sup> into their state capacity development strategies. AWIA contains the following requirements: (1) encourage public water supplies (PWSs) to create asset management plans (AMPs); (2) assist public water systems in training to implement AMPs; (3) include a summary of these efforts in a triennial capacity development report to the governor. Consistent with this statutory change, state drinking water programs are expected to revise their capacity development strategies to include a description of how asset management will be promoted through addressing the five-core-question framework of asset management. This provision aligns with EPA's strategic measure of reducing the number of public water supply systems with health-based violations by ensuring long-term sustainability of the public water supply systems.

The Montana Department of Environmental Quality (MDEQ) Public Water Supply Bureau (PWSB) has always supported technical, managerial and financial assistance to systems in need since the origin of our PWS program. The original MDEQ Capacity Development Strategy was designed in conformance with Section 1420(c) of the SDWA submitted, reviewed, approved, and implemented in the calendar year 2000. MDEQ has assessed the 2018 SDWA requirements outlined in 1420(c), our existing program, and our future organizational capabilities to create an updated Capacity Development Strategy that will meet regulatory and existing PWS needs. The original MDEQ Capacity Development Strategy successfully guided our program efforts over the initial 22 years, and the updated Capacity Development Strategy will guide our program as we move forward.

The updated MDEQ Capacity Development Strategy is a dynamic document that may be modified over time to meet the changing needs of Montana public water supply systems and regulatory requirements. The purpose of the State Capacity Development Strategy outlines MDEQ PWSB's concentrated effort to maintain public water systems viability through technical, managerial financial capacity assistance, with an emphasis on incorporating asset management tools.

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<sup>1</sup> **Technical capacity** refers to a system's physical and operational abilities (e.g., source water adequacy, infrastructure adequacy, technical knowledge and implementation) **Managerial capacity** refers to a system's administrative and organizational abilities. (e.g., ownership accountability, staffing and organizational, effective external linkages) **Financial capacity** refers to a system's abilities to generate or obtain enough money to maintain the system and pay for future improvements. (E.G., revenue efficiency, credit worthiness, fiscal management and controls).

<sup>2</sup> **Asset management** is the practice of managing infrastructure capital assets to minimize the total cost of owning and operating them, while delivering the service level customers desire and that complies with drinking water regulations.

## II. Prioritization of Capacity Development Assistance

The MDEQ PWS capacity development strategy prioritizes assistance to systems that are out of compliance. However, MDEQ PWS strongly believes our state capacity development program also needs to continue helping systems operating within compliance as a tool to sustain compliance. With that stated, MDEQ will make every effort to support all systems with capacity development assistance while emphasizing asset management tools, but will prioritize problem systems that pose an immediate acute health risk. MDEQ PWS has historically prioritized system criteria based primarily on empirical information gathered and reviewed by PWS staff because the information may be tactile, visual (images), written or numerical in nature. The established professional scale used to prioritize systems for assistance is shown below.

Systems with MCLs or system deficiencies that pose an acute health risk will be given first priority. These systems will be identified when monitoring data are reviewed, compliance runs are conducted, a preliminary assessment for groundwater under the direct influence of surface water is conducted, or an unapproved system is discovered. Systems classified in this category are:

- Systems that have been placed on a public notice advisory such as a boil water advisory and/or any other contaminant concentration that poses an acute health risk.
- Systems with an unresolved significant deficiency(s) or sanitary defect(s).
- Systems that have failed a preliminary assessment for groundwater under the direct influence of surface water and require further evaluation.
- Systems with an Enforcement Targeting Tool (ETT) score of 10+ points.
- Systems that have unresolved 4-log disinfection treatment violation(s).
- Unapproved newly discovered PWS systems.

Systems with unresolved non-acute health risks or have potential health risks will be given second priority. These systems will be identified when monitoring data is reviewed or during a preliminary assessment for groundwater under the direct influence of surface water. Systems that fall in this category are:

- Systems that have repeated RTCR level 2 assessments, documented history of 5.0 mg/L to 10.0 mg/L nitrates or have a history of exceeding regulated contaminant concentrations that pose a non-acute health risk.
- Systems that have failed the preliminary assessment for groundwater under the direct influence of surface water.

Systems that are operating within compliance but request assistance to maintain compliance will be given third priority. These systems will be identified by all mechanisms previously discussed. Examples of systems that fall in this category include, but are not limited to:

- Systems requesting asset management tools and guidance for creation of a system specific asset management plan.
- Systems that need improvements as identified in sanitary surveys, technical assistance visit, Consumer Confidence Reports (CCRs).
- Systems expressing the desire to become a county water district.
- Systems requesting rate structure assistance.

### III. Capacity Development Funding

The Montana Capacity Development Program is funded through the Drinking Water State Revolving Fund (DWSRF) Capitalizations Grant Set-Aside. States are given the flexibility to “set aside” specified dollar amounts of a capitalization grant to support state programs to meet the Safe Drinking Water Act (SDWA) requirements. The SDWA authorizes states to use a maximum of 31% of its annual allotment for set-aside needs. The approximate funding percentages are shown below:

- Administrative – 4%
- State Program – 10%
  - Public Water Supply Supervision
  - Source Water Protection
  - Capacity Development
  - Operator Certification
- Small System Technical Assistance (TA) – 2%
- Local Assistance – 15%
  - Loan Assistance for SWP
  - Capacity Development
  - Source Water Assessment
  - Wellhead Protection

DWSRF Capitalization Grants are not guaranteed in perpetuity. The premise is for states to one day rely solely on revolving funds to support program operations.

### IV. Efficacy, Progress, and Encouragement

Montana has made great strides in updating and implementing our Capacity Development Strategy over the last three years. The America’s Water Infrastructure Act (AWIA) of 2018 provided the encouragement MTDEQ needed to refocus our strategy with goals of improving public outreach and system compliance without adding the red tape frequently associated with program changes. The following section outlines notable internal and external efforts MTDEQ has made to implement our Capacity Development Strategy and improve the overall effectiveness of our assistance.

**Encouragement of Capacity Development and Asset Management tools:** MTDEQ PWSB includes capacity development information and Capacity Development Coordinator contact information in every sanitary survey letter (C, NTNC, TNC). MTDEQ has also placed the Capacity Development Coordinator’s contact information on the back of every field staff’s business card. Capacity Development and Asset Management tools are available resources on the Capacity Development Webpage. Additionally, the Capacity Development Coordinator has spoken at MTDEQ Spring School, AWWA Conference, MRW Conference, MTDEQ Fall Water School, water system public meetings, and other smaller events across Montana. Technical assistance providers were encouraged to pursue additional secondary asset management training to improve their effectiveness when working with water systems across Montana.

**Capacity Assessments for DWSRF Applicants:** DWSRF applicants complete a capacity development assessment to verify technical, operational, maintenance, and financial

considerations have been addressed prior to release of funds. PWSB staff perform technical and managerial assessments of system capacity, and financial capacity is assessed through DNRC financial staff. DWSRF, PWSB, and DNRC work cooperatively to identify capacity deficiencies and work with the entities to resolve potential capacity deficiencies.

Since closing on its first loan in 1998, Montana's DWSRF Program has issued 490 loans to water systems throughout the state. A technical, financial, and managerial capacity assessment was conducted on each system prior to loan commitment. Of the water systems provided DWSRF funding since 1998, 5 have been non-community systems and the remainder are community systems. The loan profile of community systems includes:

- 143 loans issued to systems serving populations under 500.
- 203 loans issued to systems serving populations between 500 and 3,300.
- 88 loans issued to systems serving populations between 3,300 and 10,000.
- 56 loans issued to systems serving populations exceeding 10,000.

**Capacity Assessments for New Water Systems During Plan Review:** Assessments of new community and non-transient non-community public water systems are conducted during the initial plan review and approval process. Circular DEQ 1 Appendix A is required as part of the review process to demonstrate adequate technical, managerial, and financial capacity. MTDEQ PWSB activated 71 new public water supply systems between July 1, 2020 and June 30, 2023. The new system profile includes 17 community systems, 17 non-transient non-community systems, and 37 transient systems.

**Capacity Development Coordinator:** MTDEQ PWS created a fulltime Capacity Development Coordinator position in January of 2022 that was filled by a senior field staff member. Creation of this position has resulted in the advancement of Montana's Capacity Development Program through an updated Capacity Development Strategy with inclusion of asset management tools, implementation of an innovative training program associated with technical assistance visits, creation of a Capacity Development webpage, updates of the self-assessment form to include asset management considerations, development of approved training packets, inclusion of capacity development in all sanitary survey letters, promotion of capacity development/asset management by placing the Capacity Development Coordinator contact information on the back of all field staff cards, and targeted technical assistance visits that has resulted in a multitude of success stories in the resolution of persistent regulatory issues. The success of the new Capacity Development Coordinator position has gathered enough managerial support to justify a second Capacity Development position based in Helena to help meet demand and improve coverage. MTDEQ hopes to have the second Capacity Development position filled before the end of 2023.

**Creation of Capacity Development webpage:** The Capacity Development webpage contains program overview, DEQ 1 Appendix A, Table A-1 system budget table, EPA Capacity Development guides, EPA Asset Management guides, Small Community Assistance Planning (SCAP) Tool, downloadable Electronic System Record Book, Capacity Development background information, Montana's Capacity Development Strategy, Montana's current Annual Report, and Montana's current Report to the Governor, and a growing library of approved technical assistance visits where operators can earn CECs from approved trainers. The webpage address is [Capacity Development | Montana DEQ \(mt.gov\)](#).

**Creation of new innovative facility-based training for operators:** This program was designed by the Capacity Development Coordinator to enable certified water and wastewater operators to earn continuing education credits (CECs) for completing pre-approved technical assistance visits with an approved training provider while working on their own system. MTDEQ is partnering with Midwest Assistance Program (MAP) and Montana Rural Water Systems (MRWS) to create a series of technical assistance visit outlines that will provide general guidance during technical assistance visits, gather critical data, establish and review system protocol, and provide systems with useable information that can be incorporated into their operation and maintenance manuals for future use. Each technical assistance training packet is stored in the Capacity Development webpage after it is developed and approved. This library of available technical assistance outlines continues to grow as new outlines are designed, reviewed, and approved for use. Operators can visit the Capacity Development webpage to review the available technical assistance training outlines, contact an approved technical assistance provider, and schedule a TA visit for CECs. All training must be pre-approved through the Capacity Development Coordinator, include a completed outline upon completion, and an evaluation form of the training to earn CECs. MTDEQ feels this provides an opportunity for operators to earn CECs while working on their own systems, decreases annual system training costs, encourages systems to request TA from approved providers, improves TA provider/ MTDEQ communications, and creates a document upon completion that can be beneficial to the system for years to come.

## **V. Commonly identified problems and solutions**

MTDEQ has historically provided technical assistance to all public water supply systems and this approach has not changed with the implementation of our new Capacity Development Strategy. We all communicate between supervisors, field staff, rule managers, engineers, source water, enforcement, legal, etc. to provide the most useful information possible. This formula has served Montana well for many years. The public water supply problems we encounter are diverse in nature and we use our various skills as a group to independently diagnose and resolve each issue.

Unfortunately, unresolved persistent issues do occur and achieving compliance can seem out of reach for some systems. MTDEQ have used the Capacity Development Coordinator position to address these unresolved issues and the results have been extremely positive through financial savings to systems, and resolution of many monitoring violations and enforcement actions.

## VI. Summary

Montana's capacity development strategy and program are dependent on continued availability of DWSRF capitalization grant funds to financially support our efforts in maintaining technical, managerial and financial capacity in our public water supply systems. Many individuals have been, and will continue to be involved in the development and implementation of the capacity development strategy. The PWS Bureau will be responsible for the maintenance of the Montana capacity development strategy with an emphasis on the five-core-question framework of asset management and ten attributes<sup>1</sup> of an effectively managed utility. PWSB staff, approved technical assistance providers, and private consultants will present capacity development and asset management annually at training sessions and conferences to provide assistance to systems, solicit public input, and keep Montana's capacity development strategy current.

The PWS Bureau will involve consultants, operators, public water supply owners, board and council members, Midwest Assistance Program (MAP), Montana Rural Water Systems (MRWS), and Rural and Tribal Environmental Solutions (RATES). Facility-based capacity development training with emphasis on asset management for continuing education credits will also provide an avenue to collect attendee contact information for follow-up, training evaluations and summary of topics covered through the approved training providers. Subsequent contact with the system representatives and compliance reports will help determine the overall effectiveness of facility-based capacity development training. MDEQ will modify the strategy as needed based on changing needs of water systems, regulations, and public input. Technical assistance contracts will be routinely evaluated to ensure the services are meeting needs of systems and consumers.

MDEQ will review submitted asset management plans, self-assessment forms, training feedback, ETT data, and technical assistance reports to help determine the effectiveness of our capacity development program as a whole. This data will also enable MDEQ to determine which of the five-core-question framework needs to be strengthened and guide additional asset management improvements within our capacity development program

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<sup>1</sup> product quality, customer satisfaction, employee and leadership development, operational optimization, financial viability, infrastructure stability, operational resiliency, community sustainability, water resource adequacy, stakeholder understanding and support