MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

REPORT TO THE GOVERNOR ON THE EFFICACY AND PROGRESS OF THE STATE'S CAPACITY DEVELOPMENT STRATEGY

The 1995 Montana Legislature created the Drinking Water Revolving Fund with the passage of HB493. In 1997, the Legislature amended the program with HB483 to make Montana law consistent with the reauthorization of the federal Safe Drinking Water Act amendments passed in 1996. This legislation, now codified as MCA 75-6-201, et seq., authorizes the Department of Environmental Quality (DEQ) and the Department of Natural Resources & Conservation (DNRC) to develop and implement the program. The Drinking Water State Revolving Fund (DWSRF) is administered by DEQ and DNRC and is similar to the Water Pollution Control State Revolving Fund.

Montana's Drinking Water State Revolving Fund Program received federal approval and was awarded its first capitalization grant on June 30, 1998. The program offers below-market loans for construction of public health-related infrastructure improvements as well as provides funding for other activities related to public health and compliance with the Safe Drinking Water Act. These other activities, or set-asides, include administration of the Drinking Water State Revolving Fund Program and technical assistance to small communities, as well as financial and managerial assistance, source water assessment and delineation, operator certification, and assistance with administration of activities in the DEQ's Public Water Supply Program.

As the primacy agency responsible for implementation of the Safe Drinking Water Act, DEQ is also responsible for the oversight of the Drinking Water State Revolving Fund Program. This role consists primarily of providing technical expertise, while DNRC provides financial administration of project loans and oversees the sale of state general obligation bonds. Most of the funds for this program come to Montana in the form of capitalization grants through the U.S. Environmental Protection Agency (EPA). Montana provides the required 20 percent matching funds by issuing state general obligation bonds. Interest on the project loans is used to pay the general obligation bonds, thus no state general funds are used to operate the program. The repaid principal on the project loans is used to rebuild the revolving fund and to fund future projects. Federal and state laws require the Drinking Water State Revolving Fund to be operated in perpetuity.

The provisions of the Safe Drinking Water Act amendments of 1996 also include a strengthened approach to prevent drinking water contamination. Among these provisions is a requirement for each state to develop and implement a capacity development strategy, with the primary goal of promoting water system capacity. Water system capacity is defined as the ability to plan for, achieve, and maintain compliance with drinking water standards. Capacity has three components: technical, managerial,

and financial. Adequate capability in all three areas is necessary for a system to have satisfactory capacity.

The 1996 amendments to the Safe Drinking Water Act allow each state to use state revolving funds to enforce capacity requirements and implement a capacity development strategy. The goal of the strategy is to ensure that all community and non-transient non-community public water supply systems have the necessary technical, financial, and managerial capability to comply with the requirements of the Safe Drinking Water Act. (A community public water supply system is defined as one that serves at least 15 connections or 25 persons daily for at least 60 days a year. A non-transient non-community system is defined as one serving at least 25 of the same persons for at least six months a year.) Federal law also requires that a water system demonstrate adequate capacity as a condition of approval for obtaining a loan from Drinking Water State Revolving Fund.

Federal law also requires each state program to submit periodic progress reports. The purpose of this document is to comply with Section 1420(c)(3) of the Safe Drinking Water Act, codified at 42 U.S.C. § 300g-9(c)(3), which requires that: "not later than 2 years after the date on which a State first adopts a capacity development strategy, ... and every 3 years thereafter, the head of the State agency ... shall submit to the Governor a report that shall also be available to the public on the efficacy of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the State . . . ."

CAPACITY DEVELOPMENT REQUIREMENTS FOR NEW WATER SYSTEMS

Montana DEQ has the statutory authority to review and approve new public water systems or modifications of existing systems. DEQ is also the primacy agency under the Safe Drinking Water Act to monitor public water systems for bacteriological, chemical, and radiological constituents. Montana has adopted rules and design circulars governing the design, construction, and monitoring of public water systems.

In accordance with the 1996 amendments to the Safe Drinking Water Act, DEQ developed capacity development regulations for new community and non-transient non-community water systems commencing operation after October 1, 1999. After review and approval by the Board of Environmental Review (BER), the final rules and design circulars incorporating the new capacity development requirements became effective on September 10, 1999.

Montana's Drinking Water State Revolving Fund Loan Program received EPA approval and was awarded its first (FY 1997) capitalization grant on June 30, 1998. Since then, the program has provided loans to water systems at below-market interest rates for the construction of public health-related infrastructure improvements. As of September 15, 2020, the program had closed on 450 loans to 141 water systems throughout the state.

Section 1452(a)(3) of the 1996 amendments to the Safe Drinking Water Act, codified at 42 U.S.C. § 300j-12(a)(3), establishes that no assistance from the DWSRF may be

provided to a public water system that does not have the technical, managerial, or financial capability to ensure compliance with the Safe Drinking Water Act or that is in significant noncompliance with a national primary drinking water regulation or variance, except that a system without adequate capacity or in significant noncompliance may receive DWSRF assistance if the following provisions are met:

1. For those systems that are in significant noncompliance, the use of the assistance ensures compliance; and

2. For those systems without adequate capacity, "the owner or operator of the system agrees to undertake feasible and appropriate changes in operations (including ownership, management, accounting, rules, maintenance, consolidation, alternative water supply, or other procedures) if the State determines that the measures are necessary to ensure that the system has the technical, managerial, and financial capability to comply with the requirements of this title over the long term."

BASIS OF AUTHORITY

DEQ is granted legal authority for capacity requirements by Title 75, Chapter 6, MCA, Public Water Supplies, Distribution and Treatment. Section 75-6-103 grants the BER authority to adopt rules for regulating public water supplies, including, as relevant here:

1. the siting, construction, operation, and modification of a public water supply system or public sewage system; and

2. the review of financial viability of a proposed public water supply system or public sewage system, as necessary to ensure the capability of the system to meet the requirements of 75-6-103.

The public water supply laws in Title 75, Chapter 6, also grant authority to DEQ to take enforcement actions against noncomplying.

The regulatory requirements for the design, construction, operation, and monitoring of public water supply systems are set forth in administrative rules and design circulars. The criteria for the design and construction of public water supplies are set forth in Title 17, Chapter 38, Subchapter 1, of the Administrative Rules of Montana. These rules also adopt and incorporate by reference the design circulars used for public water supply systems: DEQ 1 is the design circular for community water systems and DEQ 3 is the design circular for non-community water systems. The design circulars provide operational, siting, and design criteria for new or modified public water systems. The bacteriological, chemical, and radiological requirements for public water supply systems are found in Title 17, Chapter 38, Sub-Chapter 2, ARM. This portion of the rules provides monitoring frequency requirements, maximum contaminant levels for regulated contaminants, treatment requirements, and reporting procedures of monitoring results to DEQ. DEQ currently maintains a database of the distribution, source, entry point, and monitoring information for public water systems. This database is updated whenever

new monitoring results are received, modifications to a system are constructed, or violations occur.

Montana has adopted cross-connection rules (Title 17, Chapter 38, Sub-Chapter 3, ARM) that require all cross-connections in a public water system must be eliminated either through disconnection from the system or installation of an approved backflow prevention assembly.

CAPACITY DEVELOPMENT CONTROL POINTS

As mentioned earlier, Montana chose to place capacity development requirements in the existing rules and circulars. The major rules that include capacity requirements are as follows:

1. Section 17.38.101(9) requires completion of construction, alteration, or extension of a public system within three years of approval. This section formerly required that construction, alteration, or extension of a public system commence within two years, but left the completion time frame open. This requirement ensures that new systems or system modifications are installed based on the most current design criteria and technology.

2. Section 17.38.101(14) requires that as-built records for the system, or portion of system constructed to date, be furnished to DEQ within 90 days after completion of construction, alteration, or extension of the system. This gives DEQ a more accurate inventory of operating public systems.

3. Section 17.38.101(13) requires that proper certification be provided to DEQ that the system was built in accordance with the approved plans.

These sections provide DEQ with control points on new water systems and result in a more accurate database of new public water systems.

In addition to the rules above, Montana added capacity development requirements to its existing design circulars, DEQ 1 and DEQ 3. Both circulars were modified to include criteria for new technologies available for water systems. The following capacity development requirements were included in each circular:

1. An assessment for groundwater under the direct influence of surface water must be performed for each new groundwater source. In 2008, DEQ created a new circular, Public Water Supply 5 (PWS 5), which provides the necessary information for performing this assessment.

2. A source water assessment report must be developed for each new source. In 1999, DEQ created Circular PWS-6, which provides the necessary information for performing this assessment.

3. New systems must provide detailed information on ownership, management, operation, maintenance, and financing of the new system. DEQ requests specific capacity information in the appendices of DEQ 1 and DEQ 3. Similar information is requested for non-transient non-community systems.

DEQ provides a questionnaire for applicants to assist in compiling the information necessary to meet the capacity development requirements. The questionnaire, Managerial and Financial Capacity Questionnaire for Public Water Supply Systems, is available in hard copy and electronically.

IMPLEMENTATION OF A CAPACITY DEVELOPMENT PROGRAM

Following adoption of Montana's capacity development rules on September 10, 1999, DEQ provided training to consultants, developers, and city-county officials. The training focused on assembling the required information in the proper format to comply with the capacity development rules, particularly groundwater-under-the-direct-influence-of-surface-water assessment, source-water assessment, and financial information. These three facets of the capacity development rules are the most labor-intensive requirements for consultants and developers to prepare.

DEQ tracks the progress of new community and non-transient non-community water systems throughout the approval process and during operation of the system. DEQ currently has a database system that contains the following information for each active public water supply system in the state:

1. owner, owner's address, contact person, operator, and size of system;
2. source and entry point information;
3. sampling profile for each entry point;
4. sampling results for all regulated contaminants;
5. remarks and history information of the system, such as system improvements or violations; and
6. results of sanitary surveys.

As part of the capacity requirements, information on system startup, records of as-built plans and certification, groundwater-under-the-direct-influence-of-surface-water assessment, and source-water assessment are included in the database for each new community and non-transient non-community water system. DEQ personnel routinely query the database to ensure that new systems have met all applicable capacity development requirements. DEQ can assess penalties against systems that fail to comply with capacity development requirements. Since implementation of the capacity development rules, all new community and non-transient non-community water supply systems in the state have successfully completed the capacity review process.

DEQ's Water and Wastewater Operator Certification Program works closely with the Public Water Supply and DWSRF programs to ensure that all new community and non-transient non-community water systems have appropriately certified operators. As in the past, the Operator Certification Program continues to be a strong component in the

state's capacity development strategy. The role of this program is described in more detail later.

DEQ's Source Water Protection Program also contributes to new water system capacity through its involvement in the review and approval of source water assessment reports for new water sources. The Source Water Protection Program staff identifies new sources at-risk due to geological conditions, source construction, or potential contaminant sources and ensures that adequate treatment is provided at those sources. The efforts of the Source Water Protection Program have resulted in improved source water protection and proactive water treatment requirements.

SUMMARY OF ASSESSMENTS OF TECHNICAL, FINANCIAL, AND MANAGERIAL CAPACITY OF SYSTEMS SEEKING DWSRF ASSISTANCE

Since closing on its first loan in 1998, Montana's DWSRF Program has issued 369 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, one is a non-transient non-community system, one is a transient system, and the remainder are community systems. The loan profile of the community systems is:

- 131 loans were issued to systems serving populations under 500;
- 185 loans were issued to systems serving populations between 500 and 3,300;
- 75 loans were issued to systems with populations between 3,300 and 10,000; and
- 59 loans went to systems with populations exceeding 10,000.

SYSTEMS IN SIGNIFICANT NONCOMPLIANCE RECEIVING DWSRF ASSISTANCE

Since the program's inception in 1998, 33 water systems receiving DWSRF assistance were out of compliance with the Safe Drinking Water Act. For seven of these systems, DWSRF assistance was used to fund the construction of surface water treatment plants that brought the systems into compliance with the Surface Water Treatment Rule. Another 14 systems made facility improvements that brought them into compliance with other provisions of the Surface Water Treatment Rule. Five systems used DWSRF assistance to attain compliance with the provisions of the Total Coliform Rule. One system used DWSRF funding to construct water treatment facilities for arsenic removal, and another to replace arsenic-contaminated wells with an acceptable groundwater source. In two cases, DWSRF assistance funded construction of facilities essential for returning to compliance with the Lead and Copper Rule. DWSRF assistance enabled two systems to improve infrastructure facilities to resolve a number of problems, including violations of the Disinfection Byproducts Rule. One other system used DWSRF funding to replace an asbestos-cement transmission main responsible for asbestos maximum contaminant level violations.

SYSTEMS REQUIRED TO UNDERGO RESTRUCTURING IN ORDER TO RECEIVE DWSRF ASSISTANCE

Of the water systems receiving DWSRF assistance since the program's inception in 1998, none were required to undergo restructuring in order to receive DWSRF assistance. One system incorporated as a county water district before its loan application was submitted to the DWSRF Program.

CAPACITY DEVELOPMENT ASSISTANCE FOR EXISTING SYSTEMS

The state of Montana has approximately 2,200 public water supplies. Given the large number of systems and a shortage of staff with the requisite financial and managerial experience, the department has chosen to provide these types of services through a contractor.

Operations and maintenance contracts have been in place beginning in May 1999 when the Midwest Assistance Program (MAP) was first awarded a contract. In 2012, after a competitive selection process, the contract was awarded to Rural and Tribal Environmental Solutions (RATES). Two separate technical assistance contracts provide operations and maintenance and financial and managerial assistance, respectively. MAP was again awarded the contract in 2019 and is the department's contractor for both of these efforts. Assistance provided under this contract has resulted in lifting boil orders at surface water treatment plants, improved treatment performance at others, and development of long-range operations and maintenance planning at many small systems.

Since 1999, more than 2,290 site visits have been completed, providing both long-term and short-term operations and maintenance assistance. Since 2001, MAP and RATES have provided in-depth financial and managerial services to more than 400 public water systems. The format for financial and managerial assistance begins with telephone or written contact with the selected water system management followed by one or more on-site visits to evaluate the financial and managerial status of the system. Following the site visits, a written report is prepared and mailed to the system owner or manager, summarizing the observations and recommendations discussed during the evaluation.

The department's Source Water Protection Program has also been building system capacity by identifying those systems at risk due to geological conditions, source construction, or potential contaminant sources. In conjunction with the Public Water Supply Section, the Source Water Protection Program ensures that adequate treatment is provided at systems that have been identified as being at-risk of having contaminant problems. The efforts of the Source Water Protection Program have led to improved source water protection and, when appropriate, additional water treatment (usually disinfection).

The department's Water and Wastewater Operator Certification Program has the responsibility for ensuring that each community and non-transient non-community water system has an operator certified at the appropriate level. The mission of the program is twofold. First, it protects the public health and the environment as required by Title 37, Chapter 42, MCA, and Title 17, Chapter 40, Sub-Chapter 1 and 2, ARM. These

statutes and rules mandate that each community and non-transient non-community water treatment plant and water distribution system and each public wastewater treatment plant system have a certified operator. Second, the program provides testing, recordkeeping, and program information services and ensures that comprehensive ongoing training is provided to the state's water and wastewater operator community. Montana has approximately 1,620 certified water and wastewater operators.

G:\ENG\DWSRF\SETASIDE\FMA\2020Section1420.doc
September 26, 2020