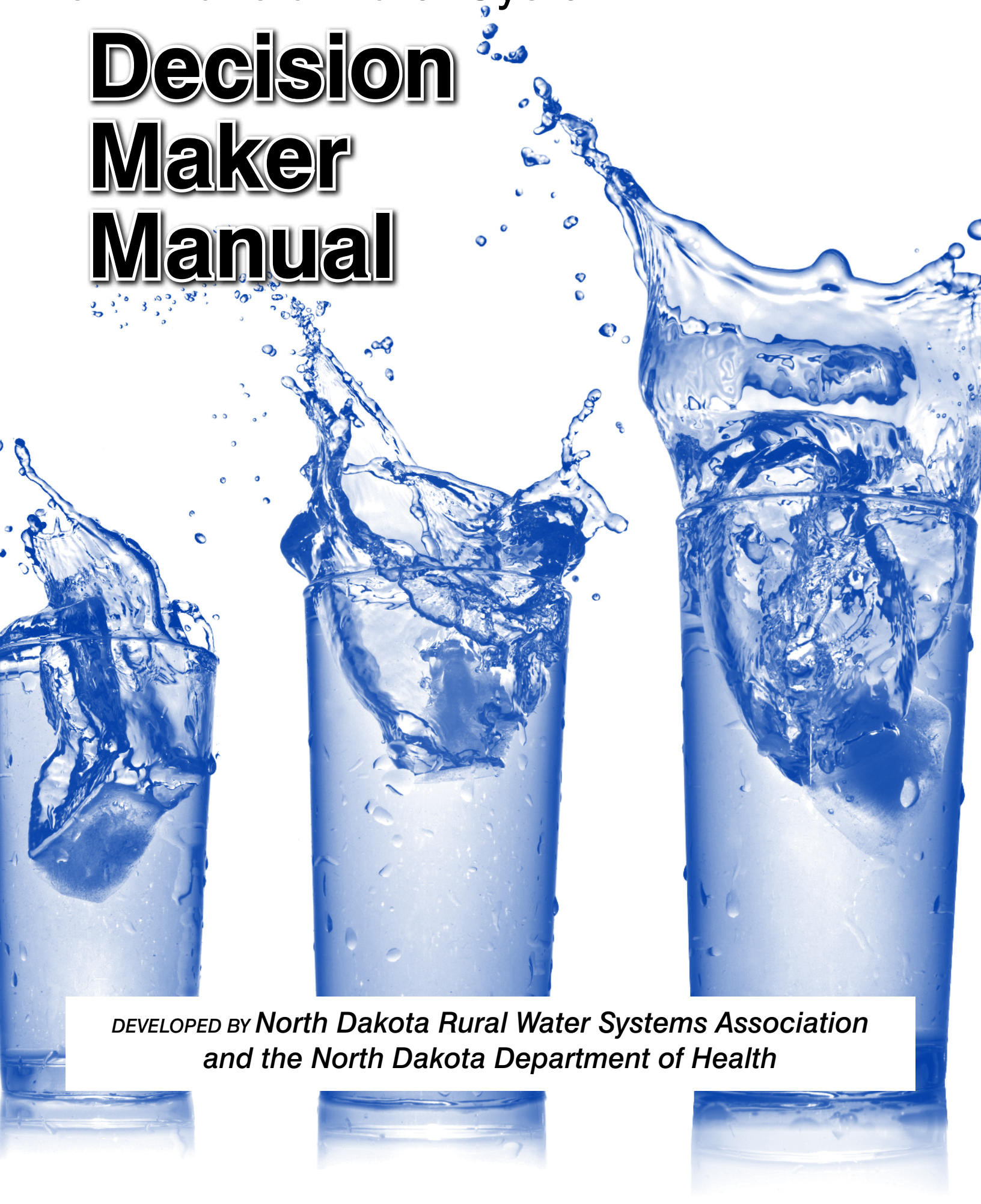
North Dakota Water System

Decision Maker Manual



DEVELOPED BY ***North Dakota Rural Water Systems Association and the North Dakota Department of Health***

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An important goal of federal, state, and local officials is to provide safe drinking water to nearly 300 million people in the United States. Approximately 53,000 community water systems are located within the U.S. While our drinking water is among the safest in the world, many water system personnel must make significant management decisions in the near future to continue supplying safe drinking water to their customers.

The ultimate obligation of water system decision makers is to provide affordable drinking water of excellent quality and sufficient quantity to its users. All water systems should be committed to completing and maintaining their infrastructure for economic growth and improving the overall quality of life for their members. Meeting these requirements is time consuming, complex, and sometimes difficult for today's governing bodies, especially in small communities.

According to the U.S. Department of Agriculture (USDA) Rural Development and U.S. Environmental Protection Agency (EPA), many rural and small water systems throughout the country struggle with various issues which may include aging or inadequate infrastructure, difficulties recruiting or retaining qualified staff, growing or establishing financial reserves, and setting rates that are reflective of their operational costs.

To help address these various issues and more effectively provide sustainable services to the communities and regions they support, North Dakota Rural Water Systems Association, through funding from the North Dakota Department of Health, has developed the North Dakota Water System Decision Maker Manual.

The decisions made by water systems management cover a vast array of topics depending on the particular needs of their users. Every system experiences specific problems to be addressed. This manual is designed to offer general guidance to help improve the overall technical, managerial, and financial capacity of North Dakota water systems.

Today's decision makers have a unique opportunity to enhance the quality of life of their users by continually improving their water systems. This manual will aid in these efforts.

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The Sustainably Managed Utility: Ten Key Management Areas

Information below is excerpted from the *USDA and EPA Rural and Small Systems Guidebook to Sustainable Utility Management.*

The ten key management areas can help rural and small water and wastewater systems address many ongoing challenges and move toward sustainable management of both operations and infrastructure. In aiming to increase their long-term sustainability and effectiveness, the eventual goal for systems is high achievement, consistent with the needs and expectations of their communities, in each of the management areas.

The management areas were developed by using information and experience from a wide range of rural and small water system operations specialists and managers from across the United States. The management areas were further validated through EPA- and USDA-sponsored workshops held with rural and small systems. Each management area is described as a desirable outcome for a system to achieve and can be considered a building block for improving system performance. By working to improve performance in each of the ten areas, managers can help their systems to become more successful, resilient, and sustainable for the long term.

The management areas are not presented in a specific order, but together they make up the framework for a complete and well-rounded management approach. By making improvements in any of the areas at a pace consistent with its most pressing challenges, a system will be able to deliver increasingly efficient and higher quality services.

- Product Quality
- Customer Satisfaction
- Employee & Leadership Development
- Operational Optimization
- Financial Viability
- Infrastructure Stability
- Operational Resiliency
- Community Sustainability & Economic Development
- Water Resource Adequacy
- Stakeholder Understanding & Support

Product Quality: The system is in compliance with permit requirements and other regulatory or reliability requirements. It meets its community's expectations for the potable water or treated effluent and process residuals that it produces. The system reliably meets customer, public health, and ecological needs.

Customer Satisfaction: The system is informed about what its customers expect in terms of service, water quality, and rates. The system provides reliable, responsive, and affordable services; and it requests and receives timely customer feedback to maintain responsiveness to customer needs and emergencies. Customers are satisfied with the services that the system provides.

Employee and Leadership Development: The system recruits and retains a workforce that is competent, motivated, and safe-working. Opportunities exist for employee skill development and career enhancement. Training programs are in place or are available for employees to retain and improve their technical knowledge. Job descriptions and performance expectations are clearly established (in writing), and a code of conduct is in place and accepted by all employees.

Operational Optimization: The system ensures ongoing, timely, cost-effective, reliable, and sustainable performance in all aspects of its operations. The key operational aspects of the system (e.g., pressure, flow, quality) are documented and monitored. The system minimizes resource use, loss, and impacts from day-to-day operations. It has assessed its current energy use and water loss and performed related audits.

Financial Viability: The system establishes and maintains an effective balance of long-term debt, asset values, operations and maintenance expenditures, and operating revenues. The rates that it charges are adequate to pay its bills; put some funds away for both future capital expenditures and unanticipated issues; and maintain, repair, and replace its equipment and infrastructure as needed. The system discusses rate requirements with its customers, decision-making authorities, and other key stakeholders.

Infrastructure Stability: The system understands the condition and costs associated with its critical infrastructure assets. It has inventoried its system components, conditions, and costs; and it has a plan in place to repair and replace these components. The system maintains and enhances the condition of all assets over the long term at the lowest possible life-cycle cost and acceptable level of risk.

Operational Resiliency: The system ensures that its leadership and staff members work together to anticipate and avoid problems. It proactively identifies legal, financial, non-compliance, environmental, safety, security, and natural threats to the system. The system has conducted a vulnerability assessment for safety, natural disasters, and other environmental threats; and it has prepared an emergency response plan for these hazards.

Community Sustainability and Economic Development: The system is active in its community and is aware of the impacts that its decisions have on current and long-term future community health and welfare. It seeks to support overall watershed, source water protection, and community economic goals where feasible. It is aware of, and participates in, local community and economic development plans.

Water Resource Adequacy: The system ensures that water availability is consistent with current and future customer needs. It understands its role in water availability and manages its operations to provide for long-term aquifer and surface water sustainability and replenishment. The system has performed a long-term water supply and demand analysis; and it is able to meet the water and sanitation needs of its customers now and for the reasonable future.

Stakeholder Understanding and Support: The system actively seeks understanding and support from decision-making bodies, community members, and regulatory bodies related to service levels, operating budgets, capital improvement programs, and risk management decisions. It takes appropriate steps with these stakeholders to build support for its performance goals, resources, and the value of the services that it provides. The system performs active outreach and education to understand concerns and promote the value of clean, safe water and the services the utility provides, consistent with available resources.

The *USDA and EPA Rural and Small Systems Guidebook to Sustainable Utility Management*, October 2013, was developed with assistance from Rob Greenwood, Morgan Hoenig, and Erin Krane-Peterfreund with Ross Strategic under Contract EP-C-11-009 with the Office of Wastewater Management at the U.S. Environmental Protection Agency.

The Safe Drinking Water Act (SDWA)

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996, requiring many actions to protect drinking water and its sources such as rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals). SDWA authorizes the U.S. EPA to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. EPA, states, and water systems then work together to make sure that these standards are met.

Millions of Americans receive high quality drinking water every day from their public water systems (which may be publicly or privately owned). Nonetheless, drinking water safety cannot be taken for granted. There are a number of threats to drinking water. Improperly disposed of chemicals, animal wastes, pesticides, human threats, wastes injected underground, and naturally occurring substances can all contaminate drinking water. Likewise, drinking water that is not properly treated or disinfected, or that travels through an improperly maintained distribution system, may also pose a health risk.

Originally, SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water protection. This approach ensures the quality of drinking water by protecting it from source to tap.

All public water systems must have at least 15 service connections or serve at least 25 people per day for 60 days of the year.

Drinking water standards apply to water systems differently based on their type and size.

Community Water System (nationwide, there are approximately 53,000) - A public water system that serves the same people year-round. Most residences (homes, apartments, and condominiums in cities, small towns, and mobile home parks) are served by Community Water Systems.

Non-Community Water System - A public water system that serves the public but does not serve the same people year-round. There are two types of non-community systems:

Non-Transient Non-Community Water System (there are approximately 20,000) - A non-community water system that serves the same people more than six months per year but not year-round(e.g., a school with its own water supply).

Transient Non-Community Water System (there are approximately 87,000) - A non-community water system that serves the public but not the same individuals for more than six months (e.g., a rest area or campground).

EPA also classifies water systems according to the number of people they serve.

- Very small water systems serve 25-500 people.
- Small water systems serve 501-3,300 people.
- Medium water systems serve 3,301-10,000 people.
- Large water systems serve 10,001-100,000 people.
- Very large water systems serve 100,001+ people.

"Understanding the Safe Drinking Water Act" (United States Environmental Protection Agency, June 2004) 3 March 2015, http://water.epa.gov/lawsregs/guidance/sdwa/upload/2009_08_28_sdwa_fs_30ann_sdwa_web.pdf

"Public Drinking Water Systems: Facts and Figures" (United States Environmental Protection Agency) 3 March 2015, http://water.epa.gov/infrastructure/drinkingwater/pws/factoids.cfm.

EPA Rules for Water Systems

Ground Water Rule (GWR) (October 11, 2006)

Specifies the appropriate use of disinfection while addressing other components of ground water systems to ensure public health protection.

Long Term 2 Enhanced Surface Water Treatment Rule (LT2) (December 15, 2005)

Reduces illness linked with the contaminant Cryptosporidium and other disease-causing microorganisms in drinking water.

Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBP) (December 15, 2005)

Builds upon earlier rules that addressed disinfection byproducts to improve a system's drinking water quality and provide additional public health protection from disinfection byproducts.

Long Term 1 Enhanced Surface Water Treatment Rule (LT1) (January 14, 2002)

Strengthens control of microbial contaminants, particularly Cryptosporidium, for small systems-those systems serving fewer than 10,000 people. It is the smaller system counterpart of the Interim Enhanced Surface Water Treatment Rule.

Arsenic Rule (January 22, 2001)

Established revised monitoring and reporting requirements and limits for arsenic in community and non-community water supplies.

Radionuclide Rule (December 7, 2000)

Established monitoring and reporting requirements and limits for radioactive contaminants in community water system supplies.

Public Notification Rule (May 4, 2000)

Sets requirements for the form, manner, and timing of public notice required under drinking water regulations.

Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBP) (December 16, 1998)

Reduces exposure to disinfection byproducts for customers of community water systems and non-transient non-community systems, including those serving fewer than 10,000 people, that add a disinfectant to the drinking water during any part of the treatment process.

Consumer Confidence Report Rule (August 19, 1998)

Sets requirements for community water systems to develop and distribute annual water quality reports to all consumers.

Phase II/V Rules (1991/1992)

Established monitoring and reporting requirements and limits for inorganic, volatile organic, and synthetic organic contaminants in community and non-community water supplies.

Lead and Copper Rule (June 7, 1991)

Established monitoring and reporting requirements and limits for lead and copper in community and non-community water system supplies.

Total Coliform Rule (June 29, 1989)

Established monitoring and reporting requirements and limits for the presence of total coliforms in all public water supplies.

Surface Water Treatment Rule (SWTR) (June 28, 1989)

Seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. These disease-causing microbes are present at varying concentrations in most surface waters. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.

Visit: http://water.epa.gov/lawsregs/rulesregs/sdwa/ or contact the North Dakota Department of Health at 701-328-5211, for more information on these rules.

North Dakota Department of Health's Capacity Development Program

Information below is excerpted from North Dakota's Capacity Development Report to the Governor, which was prepared by the North Dakota Department of Health's Division of Municipal Facilities, September 2014.

In the 1996 Amendments to the Safe Drinking Water Act (SDWA), it was conveyed that a capable water system is better positioned to consistently comply with applicable standards and provide safe and reliable water service. It was recognized by Congress that protection of the public's water supply requires ongoing compliance with the operation and maintenance of public water system facilities. The term "capacity development" was used to describe capability. The fundamentals of capacity are to:

1. Protect public health by ensuring consistent compliance with drinking water standards.
2. Enhance performance beyond that of compliance through measures that bring about efficiency, effectiveness, and service excellence.
3. Promote continuous improvement through monitoring, assessment, and strategic planning.

Capacity has three components: technical, managerial, and financial as shown in Figure 1. Adequate capacity in all three areas is necessary for a system to have "capacity." Technical capacity refers to the physical infrastructure of the water system including, but not limited to, the adequacy of source water; infrastructure adequacy (source treatment, storage, and distribution); and the ability of system personnel to implement the proper technical knowledge. Managerial capacity includes ownership accountability, staffing and organization, and effective external linkages. Financial capacity refers to the financial resources of the water system including, but not limited to, the revenue sufficiency, credit worthiness, and fiscal management and controls.

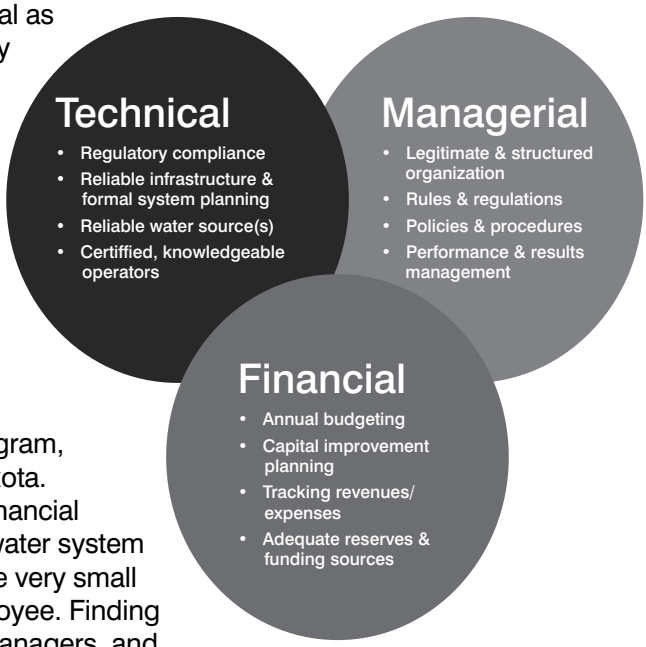

Figure 1.

Despite the maturing of North Dakota's Capacity Development Program, there are still some significant areas of weakness in rural North Dakota. These areas of weakness tend to be those in the managerial and financial capacity. Managerial capacity is directly affected by the individual water system operators, managers, and board members. North Dakota has some very small water systems, and often times there is not even one full time employee. Finding and retaining qualified and experienced water system operators, managers, and board members is limited in rural areas and may be attributed to the following causes:

1. **Aging Workforce.** There have been several published reports regarding the aging workforce in the water industry and the lack of qualified professionals to succeed those retiring.
2. **Salaries.** Due to the competition in the marketplace, rural water systems typically do not offer enough money to attract experienced operators and managers. They will usually find someone less qualified who will work for a lower wage.
3. **Declining Pool of New Professionals.** Educational programs that promote the water industry and adequately prepare new professionals seem to be lacking in North Dakota. Many operators and managers learn on the job and start at the entry level with little or no formal education or preparation. Some water systems are functioning without a certified water operator or continue to use a contract operator who provides minimal local service.
4. **Board Members without Utility Backgrounds.** In rural communities, water systems are fortunate to find enough individuals to serve on a board. Many board members lack a fundamental understanding of water system operations, finance, and management.

The experience, training, and background of water system managers, operators, and board members are directly linked to the capacity of a water system and are likely to be the greatest single factor. Water systems led by a capable, experienced manager, who is supported by a competent and progressive governing board, tend to have high capacity in all areas.

Operator Certification

According to EPA, operator certification helps protect human health and the environment by establishing minimum professional standards for the operation and maintenance of public water systems. In 1999, EPA issued operator certification program guidelines specifying minimum standards for certification and recertification of the operators of community and non-transient non-community public water systems. These guidelines are currently being implemented through state operator certification programs. While the specific requirements vary from state to state, the goal of all operator certification programs is to ensure that skilled professionals are overseeing the treatment and distribution of safe drinking water. Operator certification is an important step in promoting compliance with the SDWA.

In the state of North Dakota, it is unlawful for anyone to operate a water treatment facility or a water distribution system serving a population of 25 or more if that person is not appropriately certified.

Direct Responsible Charge - An operator who has direct responsible charge shall hold a certificate that is at least equal to the classification of the facility or system where the operator is employed. Direct responsible charge means full and active performance of on-site operation. In addition to full and active performance of on-site operation, one or several of the following may be included:

1. Responsible for technical support and provides direction to other operators
2. On-site or on call during shift operations
3. Responsible for operation of a major segment of a facility or system
4. Operation of a small facility or system as sole employee

Facility Classifications (general guidelines)

A. Water Treatment Plant - This refers to a facility which in some way alters the physical, chemical, or bacteriological quality of the water.

1. Systems using simple chemical addition such as disinfection, fluoridation, corrosion control, or sequestering:
   Class IA serving a population of less than 500
   Class I serving a population of 500 to 5,000
   Class II serving a population of 5,000 to 15,000
   Class III serving a population of 15,000 or more
2. Systems using chemical softening processes and filtration or membrane technology:
   Class II serving a population of less than 1,000
   Class III serving a population of 1,000 to 5,000
   Class IV serving a population of 5,000 or more
3. Systems using coagulation, flocculation, sedimentation, and filtration for clarification:
   Class II serving a population of less than 1,500
   Class III serving a population of 1,500 to 10,000
   Class IV serving a population of 10,000 or more
4. Systems using chemical oxidation of iron or manganese and filtration:
   Class II serving a population of less than 2,000
   Class III serving a population of 2,000 to 15,000
   Class IV serving a population of 15,000 or more

B. Water Distribution System - This refers to a system which obtains, stores, and conveys water from the treatment facility to the consumer.
Class IA serving a population of less than 500
Class I serving a population of 500 to 1,500
Class II serving a population of 1,500 to 15,000
Class III serving a population of 15,000 to 50,000
Class IV serving a population of 50,000 or more

Contact Craig Bartholomay, North Dakota Department of Health, at 701-328-6626 for more information on operator certification.

Water System Rate Setting Basics

Information below is excerpted from EPA's Setting Small Drinking Water System Rates for a Sustainable Future.

7-Step Rate-Setting Process

Step 1 Determine the full cost of doing business by calculating your costs.

Step 2 Determine your current revenues.

Step 3 Consider your reserve requirements to ensure you have enough funds to cover your asset rehabilitation and repair costs, as well as unexpected costs during the next five years.

Step 4 Calculate how much money you need to collect from customer charges to cover your costs and fully fund your reserve account.

Step 5 Evaluate appropriate rate structures and design an appropriate rate.

Step 6 Implement the rates.

Step 7 Review your rates and make changes when appropriate.

Rate Setting Important Terms

Full-Cost Pricing - Charging customers for the actual cost of water service will guarantee you the revenue needed to cover the costs of operation, treatment, storage, and distribution and will provide funds for future investments.

Fixed Costs - Costs that remain the same regardless of variations in how much water your system pumps, treats, and delivers (e.g., debt service on loans, rent, etc.).

Variable Costs - The costs of operating your system that change as the amount of water that you pump, treat, and sell increases or decreases. Examples include chemicals and maintenance.

Decreasing Block Rate - A rate structure under which the price of water per unit (block) decreases as the amount used increases. Blocks are set according to consumption (e.g., up to 2,000 gallons used, 2,000 to 6,000 gallons, etc.).

Flat Rate/Fixed Rate - Rate structure under which all customers pay a set fee (monthly, quarterly, etc.) for water service that is not tied to the amount of water used.

Increasing Block Rate - Rate structure under which the price of water per unit (block) increases as the amount used increases. Blocks are set according to consumption (e.g., up to 2,000 gallons used, 2,000 to 6,000 gallons, etc.). This type of rate structure encourages water conservation.

Uniform Rate - A rate structure under which customers pay a single charge per unit of water. For example, customers may pay $2 per thousand gallons. The cost per thousand gallons remains constant even if usage changes. A uniform rate may be combined with a fixed fee so customers would pay a fixed monthly fee plus a charge per unit of water purchased.

For more information on proper rate setting or to have your system's rates analyzed, contact North Dakota Rural Water Systems Association at 800-349-6951 or ndrw@ndrw.org.

Financial Indicators

Utility decision makers and staff need a good understanding of how several financial indicators are calculated and used to assess the financial soundness of the utility and its rates. Decision makers should also know what the indicators are for the system so they can continually judge if things are going well or not.

Operating Ratio

This is an indicator of a system's ability to pay its operating costs. A ratio of 1.0 means income and operating reserves are just high enough to pay expenses. Operating ratio equals current incomes and working capital reserves divided by current expenses, not including debt. An operating ratio of 1.0 is break even. Most systems should have an operating ratio of 1.25 or higher. The higher the operating ratio is, the better.

Coverage Ratio

Coverage ratio is like the operating ratio, except this ratio measures the utility's ability to pay debt and debt-related expenses. As with the operating ratio, higher is better. Coverage ratio equals incomes and debt reserves available to pay debt divided by the amount of the debt for that year. Most systems should have a coverage ratio of 1.25 or higher.

Affordability Index

Operating and coverage ratios measure the utility's ability to pay its bills. The affordability index measures the ratepayer's ability to pay utility bills. As compared to the operating and coverage ratios, lower is better when it comes to the affordability index. An affordability index of 1.0 percent means that a family earning the median household income for the area served by the utility must use 1 percent of income to pay the utility bill. For water or sewer service, an affordability index of 1 percent is fairly normal around the U.S. Affordability indices of less than 0.5 percent are fairly common. That means that those systems' rates are cheap. To give a comparison, most of the federal grant programs now require an affordability index of 2 percent or higher before they will give a grant to a water or sewer system. Few systems qualify because, on that basis, their rates are too low. For electric and gas services, an affordability index of 3 percent or more would not be unusual. The affordability index for most storm water systems is remarkably cheap-a few tenths of a percent or less.

The affordability index is calculated by taking the monthly charge for 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0 percent, meaning a household uses 1 percent of its income to pay its bill for 5,000 gallons of service, is generally considered affordable.

Visit www.factfinder.census.gov for median household income information.

Current Position

Current position is simply the sum of all current year revenues and cash reserves held for paying current expenses, minus all expenses incurred during that year. Current position is not a ratio; it is a dollar figure. Current position is essentially the same as the balance in your personal checking account after you have paid all your bills for that year. Current position is included in a standard balance sheet. The higher a system's current position, the more financially stable it will be. A current position that amounts to 35 percent of a large system's annual operating costs may be considered strong. That same current position for a small system should be considered weak because the dollar amount for the small system would end up being fairly close to zero. (A current position of 35 percent of an annual budget of $50,000 is only $17,500. One broken pump and one electric motor could use that up in one month.) A current position that is equal to the annual operating costs of a small system should be considered reasonable. Usually, such reserves should be split into several sub-reserves, such as those for equipment replacement and capital improvements.

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Planning

Asset Management

Asset management is a planning process that ensures that a utility gets the most value from each asset and has the financial resources to rehabilitate and replace assets when necessary. Asset management also includes developing a plan to reduce costs while increasing the efficiency and the reliability of assets.

Asset management begins with an inventory of all utility assets, collecting information on age, condition, service history, and life expectancy. These assets will need to be ranked according to their criticality. The maintenance, repair, and replacement of assets that are critical to operations will take precedence over assets that will have a minor impact on service.

Once critical assets have been identified and analyzed, utilities must establish a timeline or schedule for rehabilitation or replacement. The first step is researching the costs associated with rehabilitation and replacement and making an affirmative determination on which will be more cost effective. While rehabilitation may be cheaper in most cases, managers must consider how much life is left in the asset and additional maintenance requirements as compared to replacing the asset. Technological improvements are an additional consideration. If technology has improved to the point where a replacement would require less maintenance and run more efficiently, then these considerations must be factored into the determination as well.

Once costs have been identified, utilities must find a way to fund these costs. This may include a rate adjustment, loans, grants, or a combination of these funding sources. In any event, this is a planning process and, as such, utilities will need to develop a plan by which they can set aside funds incrementally to pay for all or part of these costs as they occur.

Finally, utilities must review and possibly revise the asset management plan at least annually. The asset management plan will be an important part of the budgeting and planning process and will need revisions as cost, technology, and assets change.

Capital Improvement and Equipment Replacement

A key aspect to proper financial and asset management is planning for equipment and facilities replacement. The old adage, “If it ain’t broke…” cannot be rationally applied to utility infrastructure. Financial and technical capacity demands a plan.

The difference between a capital improvement project and equipment replacement varies from utility to utility. The key difference for most water utilities will be how the costs associated with the project are funded. Funds used to replace equipment are usually part of the annual budget and placed into an interest-earning account to accumulate until the scheduled replacement. On the other hand, capital improvement projects not entirely funded by new customer contributions usually require outside financing through grants or loans.

A utility should have both an equipment replacement schedule and a capital improvement plan (CIP). The first step in developing a replacement schedule and a CIP is an inventory of current facilities. Utilities need to know the age and condition of facilities in order to plan for replacement and maintenance. Utilities must also attempt to predict and plan for growth and necessary future capacity. This will likely involve coordination with neighboring utilities, cities, and counties to research permit applications from developers and growth patterns.

The inventory and research process should produce a list of all utility facilities and equipment, when these items need to be replaced, and an estimate of how much the replacements will cost. The costs associated with projects that may not be scheduled for several years can be difficult to determine. Getting estimates from vendors and researching the actual cost of similar projects completed in the near past will be beneficial in this process. However, utilities need to plan for cost adjustments on projects that are scheduled several years in advance. Some vendors may be able to give estimates that include projected price increases.

Once a utility understands the costs associated with these projects, then the process of determining how to fund them begins.

- Is there a grant available to fund the project?
- If not, how much will be needed to deposit in the equipment replacement fund each year to complete the project?
- Is this amount reasonable to build into a rate adjustment?
- If not, what loan programs are available and how much investment is needed up front to qualify?

If the utility determines that it can finance the projects with existing funds, a small rate adjustment, or several incremental rate adjustments, then the funds it needs to save will become an item on the operating budget. This amount will appear on the budget each year so that the utility is not without the funds to make relatively minor replacements.

The amount of funds required to complete a project and how this amount impacts a utility will vary according to a utility's size and financial capacity. Replacing a high pressure pump may be a major project expenditure that requires outside funding for a very small utility, while a larger utility will be able to fund it from the account established to replace equipment.

For utilities that will need grants or outside funding, it is still important to have an equipment replacement account. Grants and loans often require engineering and environmental impact studies. These are up-front costs that a utility must cover in order to qualify for funding. Funding these costs from an account established to replace equipment will help offset these expenses and prevent budget shortfalls.

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Key Funding Sources for Water Systems

Drinking Water State Revolving Fund (DWSRF)

The overall purpose of the DWSRF is to assist public water systems (PWSs) in financing the costs of drinking water infrastructure needed to achieve or maintain compliance with the SDWA and to protect public health. PWSs eligible for DWSRF assistance include community water systems (both publicly and privately owned) and nonprofit non-community water systems. Federally owned PWSs are not eligible to receive DWSRF assistance. Community water systems are PWSs which serve at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents. Non-community water systems are PWSs that primarily provide service to other than year-round residents.

DWSRF Eligible Projects

Examples of nonprofit non-community water systems that are eligible for DWSRF assistance include schools and publicly owned campgrounds, parks, and rest areas. Although there is some exclusion, there is considerable flexibility in the types of projects and project-related costs that are eligible for DWSRF assistance. A DWSRF program may provide assistance only for expenditures of a type or category which will facilitate compliance or otherwise significantly further health protection under the SDWA.

SRF Process

Before a political subdivision can receive loan money, the proposed project must be identified on the Project Priority List and the Intended Use Plan. *Systems must contact the North Dakota Department of Health in the fall to be placed on the priority list for construction the next summer.* Application packets can be obtained from either the Department of Health, the Public Finance Authority, or online at http://www.nd.gov/pfa/srf.html. A community will typically require the services of a consulting engineer and bond counsel. The engineer is responsible for preparing all required technical documents. The Public Finance Authority will work with the community's bond counsel to assure that all legal and financial requirements are met. The typical SRF project consists of three steps: designing the facility plan, developing plans and specifications, and constructing the facility.

NORTH DAKOTA
DEPARTMENT *of* HEALTH

For more information contact:

North Dakota Department of Health
Division of Municipal Facilities
918 East Divide Ave 3rd Floor
Bismarck, ND 58501-1947
701-328-5211
www.ndhealth.gov/ehs/mf

USDA-Rural Development Water & Waste Disposal Loan & Grant Program

This program provides funding to eligible rural households and businesses for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage. This program assists qualified applicants that are not otherwise able to obtain commercial credit on reasonable terms.

Eligible applicants include:

- Most state and local governmental entities
- Private non-profits
- Federally recognized Tribes

Areas that may be served include:

- Rural areas and towns with fewer than 10,000 people
- Tribal lands in rural areas

What kinds of funding are available?

- Long-term, low-interest loans
- Grants that may be combined with a loan if necessary to keep user costs reasonable (if funds are available)

How may the funds be used?

- Funds may be used to finance the acquisition, construction, or improvement of the following:
    - Drinking water sourcing, treatment, storage, and distribution
    - Sewer collection, transmission, treatment, and disposal
    - Solid waste collection, disposal, and closure
    - Storm water collection, transmission, and disposal

What is the loan term and rate?

- Up to 40-year payback period based on the useful life of the facilities financed
- Fixed interest rate
- Interest rate based on the need for the project and the median household income of the area to be served

USDA Rural Development

For more information contact:

USDA Rural Development North Dakota Main Office
220 East Rosser Ave
Room 208
Bismarck ND 58502-1737
Phone: 800-582-7584
www.rd.usda.gov/nd

State Water Supply Program

The North Dakota State Water Commission supports water supply efforts and will use a grant and loan program. The local sponsor may apply for water supply funding, and the application will be reviewed to determine project priority. Projects will be prioritized within categories (1) through (5) below.

Projects within category (1) may be considered for grant funding up to 60 percent cost share or in special cases up to 75 percent of cost share. Projects in category (2) may be considered for grant funding up to 60 percent of cost share. Grant funding within category (3) will be on a case-by-case basis. Projects within categories (1) through (5) may be considered for loan funding. After cost share for grant funding has been determined, the local sponsor may be considered for loan funding in addition to the grant funding. The combination of grant and loan funding will not exceed 80 percent from the State Water Commission.

Categories:

(1) Addresses upgrades to meet primary drinking water standards or expansion into new service areas. If the expansion into a new service area requires at least 10 miles of new transmission pipeline, grant funding up to 75 percent may be considered. Factors considered for water system expansions are:
   (a) Connection of communities to the regional system as part of this expansion as determined by the State Engineer
   (b) Willingness of water users at far reaches of the system to pay additional costs for water service as an indicator of greater need for access to water and local commitment in the project as determined by the State Engineer
   (c) Affordable and sustainable water rate as determined by the State Engineer

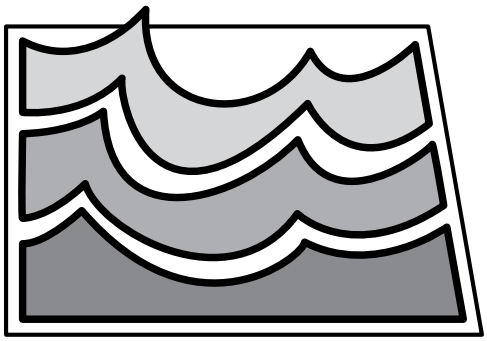
(2) Supports improvements and connection of new customers within the existing service area of a water system that has a 3-year average population growth in excess of 3 percent per year as determined by the State Engineer.

(3) Water treatment improvements that address impacts from other State Water Commission projects. Grant funding to be determined based on level of impact by State Water Commission project.

(4) Assists with improvements in service areas where the anticipated cost per user each year (based on 5,000 gallons per month) divided by the average annual median income per user is in the top quartile (or other ranking as determined by the State Water Commission) of its peer group's (large city, small city, and regional) water systems that submitted planning information forms for the biennium. The State Engineer will rank the projects.

(5) Addresses extraordinary repairs or replacement needs of a water supply system due to damages from a recent natural disaster.

Debt per capita, either actual or anticipated, may be used as an additional determinant of financial need.



For more information contact:

North Dakota State Water Commission
900 East Boulevard Ave
Bismarck, ND 58505-0850
Phone: 701-328-2750
www.swc.nd.gov

Federal Municipal Rural & Industrial (MR&I) Water Supply Program

Eligible MR&I Projects

Water supply projects and associated costs are eligible for financial assistance from program funds. Many aspects of the design and construction of water supply projects can be funded including the following:

- New ground-water wells including mechanical and electrical components
- Pipelines from water sources to public water systems and principal supply works for rural water systems
- Booster pumping plants for supply lines
- Intake works and pumping plants for new surface water sources
- New or enlarged storage facilities
- New rural water systems or expansions of rural water systems
- New regional water systems or enlargements or extensions of regional water systems

The design and construction phases of water treatment projects are also eligible. These projects can be new water treatment plants or modifications and upgrades of existing water treatment plants.

Program funds may be used for engineering, legal, and right-of-way costs, excluding the purchase of easements and costs incurred in conducting environmental reviews or cultural resources investigations associated with the planning, design, and construction. Program funds are not available for costs associated with operation, maintenance, and replacement of water supply or treatment systems, or with the preparation of the preliminary engineering report.

How to Apply for State MR&I Funding

- An applicant must submit an application for program funds to the State Engineer. A copy must also be sent to the Garrison Diversion Conservancy District. The application must include the following:
  - Information explaining the need for the proposal including its objectives and benefits
  - Area to be served by the proposal
  - Maps, diagrams, or other illustrated documentation if these will make the proposal more understandable
  - Approximate cost of carrying out the proposal (if available)
  - Amount of funding sought from program funds and the amount the applicant intends to contribute to carry out the proposal
  - Efforts (and the results) to secure funds from sources other than the MR&I Program
  - Current rate schedule for the water supply and treatment system (if available)
  - Other information the applicant believes pertinent or requested by the State Engineer

For more information contact:

North Dakota State Water Commission
900 East Boulevard Ave
Bismarck, ND 58505-0850
Phone: 701-328-2750
www.swc.nd.gov

Garrison Diversion Conservancy District
PO Box 140
Carrington, ND 58421
Phone: 800-532-0074
www.garrisondiv.org

Water Loss and Audits

As water supplies dwindle and demand for potable water increases, reducing water loss is becoming a growing concern for public water supplies. Though water audits and loss prevention programs can be time consuming and costly, most utilities will find that reducing water loss will have short- and long-term benefits. Reducing water loss can:

- Recover production capacity lost due to leaks and unauthorized use.
- Recover lost revenue due to faulty meters.
- Extend the life of pumps by reducing demand.
- Reduce utility liability due to the possibility of contamination through cross connections.

Unaccounted for Water

Unaccounted for water is the difference between the amount of water a utility purchases or produces and the amount of water a utility can account for through sales and other known uses. Water may be unaccounted for because of inaccurate system records, inaccurate meters, leaks, theft, or water used without metering for line flushing or firefighting activities. Some amounts of unaccounted for water are generally unavoidable, but investigating excessive water loss is an affirmative duty of a utility to ensure that technical capacity is adequate and that customers are not being charged for mismanagement.

Water Balance Table

System Input Volume	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water
			Billed Un-metered Consumption	Non Revenue Water (NRW)
		Unbilled Authorized Consumption	Unbilled Metered Consumption	
			Unbilled Un-metered Consumption	
	Water Losses	Apparent Losses (Commercial Losses)	Unauthorized Consumption	
			Customer Meter Inaccuracies and Data Handling Errors	
		Real Losses (Physical Losses)	Leakage in Transmission and Distribution Mains	
			Storage Leaks and Overflows from Water Storage Tanks	
			Service Connections Leaks up to the Meter	

Water Audits

Investigating water loss should start with an audit of the utility's records. Water that has gone unaccounted for due to records mismanagement is one of the most common types of unaccounted losses and the easiest to remedy. If a records audit does not reveal discrepancies that would account for the water loss, then managers should look for patterns in the amount of loss. If loss is steady or steadily increases, then the water loss is likely due to leaks. If the loss positively correlates with customer demand, then the loss is likely due to meter errors.

A water audit identifies the total water supplied to a water utility and then identifies how water is consumed. The water that is consumed by the utility consists of both authorized water consumption and water losses. These categories are then subdivided by water that is billed and unbilled, and water that is apparently lost by unauthorized consumption, metering inaccuracies, and various forms of leakage (see water balance table left).

A water audit should include a survey of the utility's operations followed by an inspection of well pumps, motors, and chemical delivery systems to ensure that they are operating properly and not wasting water. Source water meters and other connections that provide water to the utility should also be tested and recalibrated if necessary to ensure that source water is properly measured. In lieu of testing each customer meter, a sample of meters that represents each customer category should be performed. Older meters should be included in this sample whenever possible to ensure that equipment is metering accurately.

Once operations and meters have been inspected, it is necessary to identify unbilled water uses and water losses due to leaks. Depending on the amount of water identified as lost to leaks or other equipment failures, a utility may then consider leak detection services or equipment. Leak detection can be expensive; therefore, if water loss due to leaks is less than 10 percent, it may not be cost effective to find and repair leaks. Whether or not leak detection is cost effective will depend on the scarcity of source water and the production costs associated with the lost water. In areas with extremely limited water sources or where water quality requires expensive treatment processes, even a relatively small percentage of water loss may be unacceptable. It is the duty of the utility manager to investigate the costs associated with water loss and determine a threshold of acceptable water loss.

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Water System Recommended Policies and Procedures

1. **System Maps and Records**
   Water mains - size, material, and location
   Gate valves - size, type, date exercised
   Curb stops - size and location
   Fire hydrants - location, type, size, date flushed

2. **Gate Valve Inspection and Maintenance**
   How often should gate valves be exercised?
   Valve box maintenance - flushing, raising top to grade, measure and record location

3. **Fire Hydrant Inspection, Flushing and Maintenance**
   How often are hydrants inspected, flushed, and painted?

4. **Tower and Reservoir Inspection and Maintenance**
   Paint inspection interior and exterior
   Tower pit inspection
   Freeze-up prevention procedures

5. **Water Main Breaks**
   How are breaks repaired and by whom?
   Expected timeframe for repair
   Post-repair cleanup

6. **Service Line Leaks**
   Who is responsible for service line repair?
   What portion of service line is the responsibility of the municipality and what portion is the property owner's?
   What is the timeframe for repair by responsible party?

7. **Water Meters**
   Who owns and pays for the meter?
   Right to inspect
   Theft of service and tampering prohibition
   Frozen or damaged meter repair

8. **Service Line Connections**
   Connection fee (one-time payment) vs. deposits (interest bearing and refundable)
   Tapping permit
   Tapping procedure and who can tap mains

9. **Cross Connections**
   Back flow prevention on private services
   Private well disconnection
   Back flow prevention during fire hydrant use

10. **Service Shut Offs for Non Payment**
    How delinquent before service is shut off?
    Charge for service reconnection
    Will service be turned back on after hours?
    Who is responsible if curb stop breaks during shut-off procedure?

11. **Equipment Maintenance**
    Oil change schedule, greasing schedule for heavy equipment, list of equipment required in service vehicles

12. **Safety Policy**
    Clothing and footwear requirements, situation-specific training, personal protective equipment

A Guide to North Dakota's Open Records and Meetings Law

The public has the right to know how state and local government functions are performed and how public funds are spent. North Dakota has "sunshine laws," which provide that all government records and meetings must be open to the public unless a specific law authorizes a record or meeting to be closed.

All public entities are subject to open records and meetings law.

Public entity includes: *state and local government agencies, rural fire and ambulance districts, public schools, private businesses or non-profit organizations that are supported by or expending public funds, and contractors, if the contractor is providing services in place of a public entity rather than providing services to that entity.* Courts are not subject to open records and meetings law.

Anyone has the right to attend meetings of a public entity or to access and obtain copies of the entity's records, regardless of where they live. Before a public entity may deny access to a record or meeting, it first has to explain which law closes the record or meeting.

To deny access to records, the public entity must explain, within a reasonable time, the *legal authority* (the specific law) for denying the request. If asked, the entity must put the denial and explanation in writing.

To deny access to a meeting, the public entity must identify the topics to be considered and the legal authority for closing a meeting before asking the public to leave the meeting room.

Opinion Requests

Anyone may ask the Attorney General to issue an opinion regarding an alleged violation of open records or meetings law. The request must be made within 90 days of an alleged meeting held without notice or within 30 days for other violations of open meetings law or of any open records law (regardless of the date on which the requester became aware of the violation). There is no charge for the opinion, which is issued to the public entity with a copy to the requester.

If the Attorney General finds a violation, the entity has seven days to take the corrective action required by the opinion. Even if the opinion finds that the public entity violated the law, the opinion cannot change, void, or overrule a decision of, or action taken by, the public entity.

The basic open records and meeting laws are found in Chapter 44-04 of the North Dakota Century Code (N.D.C.C.), beginning at Section 44-04-17.1.

Quick Tips

Generally, a public entity cannot ask why the records are requested, ask for identification, or require a request be made in writing (or in person).

A request for *information* is not a request for a *record*. A public entity has no obligation to respond to questions about its duties and functions, or to explain the content of any of its records.

A statute may declare certain records to be exempt or confidential. If a record is exempt, a public entity may release it or withhold it, at its discretion. If a record is confidential, the public entity either cannot release it or first must redact the confidential information.

A member of the public does not have the right to *speak* to the governing body at an open meeting, only the right to see and hear what happens at the meeting and to record or broadcast those observations.

Generally, there is no requirement that a meeting notice be *published* in the newspaper.

Draft minutes should be made available to anyone who requests them, even if the minutes have not been approved.

Economic development information identifying the name, nature, and potential location of a business considering relocating or expanding within the state can be closed until the business announces its intentions.

Public employee salary and job performance is open, but certain personal and payroll information is exempt or confidential. Generally, a public entity may *not* close a meeting to discuss salary issues or employee job performance.

A governing body may close a meeting to talk with its attorney *if* the discussion pertains to the attorney's advice regarding a "pending or reasonably predictable" lawsuit involving the public entity.

Confidentiality clauses in a contract or settlement agreement involving a public entity are against public policy and are declared *void* by state law.

Open Records

"Record" includes *all recorded information regardless of physical form (e.g. paper, e-mail, computer file, photograph, audiotape or recording, video, text message, etc.) that has a connection with how public funds are spent or with the public entity's performance of its governmental functions or its public business.*

Anyone has the right to view or get a copy of public records, regardless of the reason. However, a request must reasonably identify existing records. A request for *information* is not a request for a record under open records law.

A request for public records can be made in any manner—in person, by mail, e-mail, fax, or by phone. The entity must respond to the request within a reasonable time, either by providing the requested record or by explaining the legal authority for denying all or part of the request. Generally, a "reasonable time" is measured in hours or a few days, but depending on the amount and type of records requested and various other factors, it may be several days or weeks.

A public entity may only deny access to or a copy of a record for which there is a specific statute closing all or part of the information. The remaining information is open to the public and must be provided. If a request for records is denied, the entity must explain what specific federal or state law makes all or part of the record closed. If asked, the entity must put the reason for the denial in writing.

An entity does not have to convert its records to another format, create or compile records that do not exist, or obtain records originating from another public entity that it does not have in its possession.

Access to records is generally free. An entity may charge up to 25¢ a page for copies on standard letter or legal size paper. For other records (photos, maps, etc.), the entity may charge the actual cost of making the copy, including labor, materials, and equipment. The entity should inform you if other statutes authorize a different fee.

The first hour of locating requested records (including electronic records) is free. After the first hour, the entity may charge up to $25/hr for locating records. An entity also may charge up to $25/hr (after the first hour) for the time it takes to redact any exempt or confidential information.

Generally, electronic records are provided at no cost. However, if providing electronic records takes more than one hour, in addition to charges for locating and redacting, the entity may charge the *actual cost* incurred by Information Technology resources to access and copy the records.

The entity may charge for postage to mail the records (and will need a name and address for mailing purposes). The entity can require payment of estimated costs before copying or releasing the requested records.

Open Meetings

"Meeting" means *any gathering of a quorum of the members of a governing body of a public entity regarding public business, and includes committees and subcommittees, informal gatherings or work sessions, and discussions where a quorum of members are participating by phone, e-mail, or any other electronic communication (either at the same time or in a series of individual contacts).*

If a governing body delegates any authority or assigns a portfolio to two or more people, the newly formed committee also is subject to open records and meetings law.

The *only* time a gathering of a quorum of members is not a meeting is if it is a purely social gathering—as soon as any public business is discussed, it becomes a "meeting."

Prior written notice is required for all meetings of a public entity. The notice must include the date, time, and location of the meeting, and the agenda topics the governing body expects to address during the meeting. Regular meeting agendas may be altered at the time of the meeting. For special or emergency meetings, however, *only* the specific topics included in the notice may be discussed.

Generally, there is *no minimum advance notice period* for public meetings. Notice must be posted, filed at the central location (or on the entity's website), *and* given to anyone who has requested it, *at the same time* the members of the governing body are notified of the meeting.

Meeting notices must be filed with the Secretary of State (state agencies), the City Auditor (city-level entities) or the County Auditor (all other entities); *OR* the public entity may choose to post the meeting schedules and notices on its official website. The meeting notice *also* must be posted in the entity's main office, if it has one, and if the meeting is held elsewhere, at the location of the meeting on the day of the meeting.

Additionally, notice of special or emergency meetings must be given to the entity's official newspaper and any media representatives who ask for notice of special or emergency meetings. Copies of meeting notices can be obtained from the appropriate office. If asked, a public entity must provide a requester with personal notice of its meetings.

Before a governing body may close a portion of its meeting, it first must convene in a properly noticed open meeting. Next, it has to announce the legal authority to close the meeting and the topics to be considered during the closed portion of the meeting. Unless the law *requires* a closed meeting, the governing body must vote on whether to close the meeting.

Any executive session must be tape recorded. Final action on the topics considered in the executive session must be taken during the open portion of the meeting. All substantive votes must be recorded by roll call.

Office of Attorney General, 600 E. Boulevard Ave, Bismarck, ND 58505
Tel: (701) 328-2210 • www.ag.nd.gov

Drought Management Plans

A Drought Management Plan (DMP) proactively addresses potential drought problems in order to minimize adverse impacts on the community. This document defines drought stages and outlines mitigation strategies that make wise resources for each increasing level of a drought's magnitude. Predetermined strategies may not be adequate for every scenario, but a well-conceived plan with measured responses may help take the "crisis" out of a drought situation and enhance public acceptance of actions taken. Water system personnel may engage in ongoing dialogue with their customers and specialists from a variety of disciplines to reach a point of recognition that the community can successfully endure an extended period of drought.

Water Conservation Plans

A Water Conservation Plan (WCP) follows federal methodologies set forth in the 1998 EPA's *Water Conservation Plan Guidelines*. EPA was required by the 1996 Amendments to the SDWA to provide water systems with this information. The EPA guidelines are not regulations but offer recommendations for water systems to follow in the development of water conservation plans. Conservation is defined by G. Tyler Miller, Jr. in his 1990 book *Living in the Environment* as "the use, management, and protection of resources so that they are not degraded, depleted, or wasted, and are available on a sustainable basis for use by present and future generations."

Vulnerability Assessments

A Vulnerability Assessment (VA) is the identification of weaknesses in a water system's security. The VA focuses on defined threats that could compromise its ability to meet its various service missions (e.g., providing adequate drinking water, water for firefighting, and/or water for various commercial and industrial purposes). The goal of the vulnerability assessment is to develop a system-specific list of priorities intended to reduce security risks. The document is designed particularly for systems that serve populations of up to 10,000. This document is meant to encourage smaller systems to review their vulnerabilities. Protection of public drinking water systems should be a high priority for local officials and water system owners and operators to ensure an uninterrupted water supply, which is essential for the protection of public health and safety. Adequate security measures will help prevent loss of service through terrorist acts or vandalism. If your system is prepared, such actions may even be prevented. The appropriate degree of security is best determined by the water system at the local level.

Emergency Response Plans

Emergency Response Plans (ERP) contain action steps to follow if a primary source of drinking water becomes contaminated or if the flow of water is disrupted. This document is written to function as a reference guide for emergency situations that may potentially affect a water system. A community acknowledges that its crisis prevention efforts may not be adequate for every scenario. It is difficult to anticipate the types of actions that may be needed to implement during an emergency. An emergency response plan will endeavor to outline appropriate courses of action that will minimize harm to citizens, employees, and important office documents. The community will strive for an efficient use of resources to mitigate the emergency. Whether threats are real or perceived, a water system has an emergency protocol in place and may practice this protocol before an emergency occurs. Emergency planning is a dynamic process, and communities should plan to amend and update this plan on a periodic basis.

Source Water Protection

Water System Personnel

As an operator or manager of a public water system, it is your responsibility to provide a safe and reliable quality water product to your customers. Protecting your sources of water is vital to accomplishing that goal. The success of a Source Water Protection Plan is directly related to the individuals who are managing the plan. Make an effort to annually review your plan and update the contaminant source inventory. Establish relationships with property owners within your delineated area and educate them about what they can do to help protect the community's drinking water sources. Familiarizing yourself with the possible contaminants in your delineated area will enable you to react quicker during an emergency situation, and it will also allow you to create a more comprehensive contingency plan.

Directors and City Officials

One of the most important aspects of managing a water system is having open lines of communication among operators, council members, managers, and directors. The same concept applies to source water protection. Preventative planning is often overlooked while discussing the annual budget. A significant number of water system personnel may not realize that a small investment today can lead to huge savings in the future. In the event that a water system loses its source to contamination, several contingency options are available. None of them are nearly as cost effective as the steps that could have been taken to prevent the contamination in the first place. Obviously, not all events are avoidable, but there are steps that directors and city officials can take to mitigate the risks of contamination to their community. A municipality has the ability to protect its water source within one mile of city limits. An ordinance that limits the use/storage of harmful chemicals or fuels in vulnerable areas is a good place to start.

Rural water systems can use local water resource district boards to establish similar guidelines within their jurisdictions. There are a number of management strategies that can be implemented within your community at little or no cost. A key factor to transforming a Source Water Protection Plan from a document on the shelf to a procedure within your system is public awareness and education. Residents of your community will be more willing to support and participate in best management practices if they know that what they are doing is improving the quality of life for their families.

Helpful Contacts

Attorney General.....701-328-2210

Department of Emergency Services 800-773-3259

Department of Health (Division of Municipal Facilities) 701-328-5211

Insurance Reserve Fund.....800-421-1988

North Dakota Rural Water Systems Association.....800-349-6951

Public Service Commission.....877-245-6685

State Water Commission.....701-328-2750

Surplus Property.....701-328-9665

U.S. Bureau of Reclamation 701-250-4242

U.S. Army Corps of Engineers 701-255-0015

U.S. Environmental Protection Agency Region 8 800-227-8917

U.S. Department of Agriculture Rural Development 800-582-7584

Workforce Safety and Insurance.....800-777-5033

NORTH DAKOTA
DEPARTMENT of HEALTH

North Dakota Department of Health
Division of Municipal Facilities
918 East Divide Ave 3rd Floor
Bismarck, ND 58501-1947
701-328-5211
www.ndhealth.gov/ehs/mf

New Horizons in Rural Living
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North Dakota Rural Water Systems Association
2718 Gateway Ave #201
Bismarck, ND 58503
701-258-9249 or 800-349-6851
www.ndrw.org

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