

Existing Water System Capacity Strategy

Improving the Technical, Managerial, and Financial Capability of North
Dakota's Public Water Systems

Division of Municipal Facilities
4201 Normandy Street
Bismarck, ND 58503-1324
701-328-5211
701-328-5200 (Fax)
deq.nd.gov

Version 2.0
December 2022

Table of Contents

Introduction.....	1
Public Comment	3
1996 Public Comment Responses	3
2018 AWIA (Section 2012) Updates.....	3
The Six Elements.....	4
Elements of §1420(c)(2)(A-F).....	4
The Strategy	11
The Process for Prioritizing Systems.....	11
Strategy Implementation Schedule.....	12
Future Reporting Requirements.....	13

Appendices

Appendix A: Stakeholder Contact List

Appendix B: Responsiveness Summary

Appendix C: Prioritization Form

Appendix D: Self-Evaluation

Appendix E: Self-Evaluation Questionnaires

Appendix F: Financial Worksheet

Appendix G: Capacity Attribute Evaluations

Introduction

The Safe Drinking Water Act (SDWA) Amendments of 1996 authorize a Drinking Water State Revolving Fund (DWSRF) program to help public water systems (PWSs) finance the infrastructure needed to achieve or maintain compliance with SDWA requirements and to achieve the public health protection objectives of the SDWA. Section 1420(c) of the SDWA directs the Administrator of the U.S. Environmental Protection Agency (EPA) to withhold a portion of a state's allotment under §1452 unless the state develops and implements a capacity development program to assist existing PWSs in acquiring and maintaining technical, managerial, and financial capability (capacity).

The SDWA amendments were purposely designed to be flexible so that states and local governments could develop appropriate solutions to their unique problems. The SDWA offers states flexibility and the opportunity to develop creative, state-specific solutions to achieve technical, managerial, and financial capability.

North Dakota has the authority, through North Dakota Century Code Chapter 61-28.1, to administer and enforce a safe drinking water program that is consistent with the provisions of the federal Safe Drinking Water Act. This authority includes the development and implementation of a strategy to assist all public water systems in acquiring and maintaining technical, managerial, and financial capability to comply with the rules adopted under this chapter. The North Dakota Department of Environmental Quality (previously the Environmental Health Section of the Department of Health) is the department designated with this authority.

The North Dakota Department of Environmental Quality (NDDEQ) was required to develop and implement a strategy to assist PWSs in acquiring and maintaining capacity to comply with the SDWA by August 6, 2000. In developing and implementing a capacity development strategy, the SDWA §1420(c)(2)(A-E) requires states to "consider, solicit public comment on, and include as appropriate" the following five elements:

- A. The methods or criteria that will be used to identify and prioritize the PWSs most in need of improving technical, managerial, and financial capacity
- B. The factors that encourage or impair capacity development
- C. The way the state will use the authorities and resources of the SDWA or other means to assist PWSs in complying with the National Primary Drinking Water Regulations (NPDWRs), encourage the development of partnerships between PWSs to enhance capacity of the systems, and assist PWSs in the training and certification of operators
- D. The way the state will establish a baseline and measure improvements in capacity with respect to the NPDWRs and state drinking water law
- E. An identification of the persons that have an interest in and are involved in the development and implementation of the capacity development strategy

America's Water Infrastructure Act of 2018 (AWIA) amended Section 1420 subsections (c)(2) of the Safe Drinking Water Act (SDWA). Section 1420 (c)(2) of the SDWA concerns the content that

a state shall consider, solicit public comment on, and include as appropriate in the state's capacity development strategy. The AWIA amended this subsection to add asset management as a sixth element.

- F. A description of how the state will, as appropriate (i) encourage development by public water systems of asset management plans that include best practices for asset management; and (ii) assist, including through the provision of technical assistance, public water systems in training operators or other relevant and appropriate persons in implementing such asset management plans.

According to the EPA document, Guidance on Implementing the Capacity Development Provisions of the Safe Drinking Water Act Amendments of 1996, North Dakota must document the following elements to demonstrate that it has met the basic requirements of §1420(c).

EPA has not updated their guidance manual to the states for capacity development and therefore we applied the principals below from the EPA document, Guidance on Implementing the Capacity Development Provision of the Safe Drinking Water Act Amendments of 1996, to 1420(c)(2)(F) and (c)(3). In this guidance, North Dakota must document the following elements to demonstrate that it has met the basic requirements of these new sections.

- **Public Comment:** North Dakota must verify that public comments on the now six elements listed above were solicited as part of the development of its capacity development strategy. North Dakota must also describe relevant public comments and its responses to them.
- **Consideration of §1420(c)(2)(A-F):** North Dakota must describe which of the listed elements were included or excluded from its strategy, and why each element was included or excluded.
- **Capacity Development Strategy:** North Dakota must describe how the selected elements together can rationally be considered to constitute a strategy to assist PWSs to acquire and maintain capacity.
- **Strategy Implementation:** North Dakota must describe how it will implement its strategy and evaluate its progress toward improving PWS capacity.
- **Ongoing Reporting Requirements:** not later than two years after the date on which North Dakota adopts a capacity development strategy, and every three years thereafter, the department as primacy agency must submit to the governor a report on the efficacy of the strategy and the progress towards improving the capacity of PWSs.

AWIA amended §1420 subsection (c)(3) of the SDWA. Section 1420(c)(3) requires that states include in their capacity development report to the governor their efforts to encourage the development of asset management plans and assist public water systems in implementation of asset management plans. Revised capacity development strategies must be submitted to the EPA by December 31, 2022. The capacity development report to the governor must include the asset management provisions no later than September 30, 2023 and every three years thereafter.

Public Comment

1996 Public Comment Responses

It is the intent of the Department to involve parties at interest in a collaborative manner in finalizing and updating this strategy. To this end, a public hearing was held in Bismarck on July 27, 2000 to gather input on the draft strategy. A notice was published in the Bismarck Tribune, Fargo Forum, Grand Forks Herald, and Minot Daily News at least 30 days in advance of the hearing. The notice described the purpose of the hearing and included contact information for requesting a copy of the strategy. A comment period of one week beyond the hearing was established to further enable input from parties attending or unable to attend the hearing. As a means to further encourage involvement, the Department directly mailed a copy of the hearing notice to identified stakeholders (see Appendix A). The stakeholder contact list includes entities previously contacted for input on capacity issues. Following the July 27, 2000 public hearing, a responsiveness summary was prepared (Appendix B). The responsiveness summary details comments received as well as how the comments were considered in finalizing the strategy. Public comments were solicited on all five elements listed in §1420(c)(2).

2018 AWIA (Section 2012) Updates

The NDDEQ prepared and provided a draft revised strategy to the stakeholders listed in Appendix A. Stakeholders were invited to provide input by either attending an online public input meeting or written input. The draft strategy and a meeting notice were posted on the NDDEQ website 30 days in advance of the meeting with details about how to access the meeting. Comments were accepted for three weeks beyond the hearing and a responsiveness summary was prepared and included in Appendix B.

The Six Elements

Elements of §1420(c)(2)(A-F)

The SDWA requires that states consider each of the six programmatic elements for inclusion in the capacity development strategy. It does not require states to use specific tools in implementing the selected elements. North Dakota considered and will include all six elements in the capacity strategy. North Dakota feels that all the elements, when taken as a whole, constitute a strategy to assist PWSs in acquiring and maintaining technical, managerial, and financial capability. SDWA Amendments per AWIA recommend that states encourage PWSs to development asset management plans and provide training to the PWSs to assist in the development and implementation of the asset management plans.

Element A: Methods or Criteria Used to Prioritize Systems in Need of Technical, Managerial, and Financial (TMF) Assistance

The SWDA requires that each state *"In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate- the methods or criteria that the State will use to identify and prioritize the public water systems most in need of improving technical, managerial, and financial capacity."*

North Dakota considered several methods and criteria that could be used to implement this element and benefit PWSs. It was determined that the greatest assistance to PWSs would be to utilize existing data from state agencies to prioritize those systems in greatest need of acquiring and maintaining technical, managerial, and financial capability, including asset management strategies. Existing data to be used in prioritizing systems are included in Appendix C.

Section B: The Factors that Encourage or Impair Capacity Development

The SDWA requires each state to identify the factors that either encourage or impair the TMF capability of PWSs. North Dakota must consider developing a description of the *"institutional, regulatory, financial, tax, and legal factors at the Federal, State, or local level that encourage or impair capacity development"*.

The factors operating at the federal, state, and local level that impair or enhance water system capacity are presented in this section of the document. By definition they are:

- Institutional- intergovernmental, cultural, procedural or relationship issues that either enhance or impair the ability of water systems to acquire or maintain TMF capability
- Regulatory- federal, state, or local rules and regulations that affect TMF capability
- Financial- financial practices, policies, or conditions that affect TMF capability
- Tax- federal, state, or local taxation practices, policies, or attitudes that affect TMF capability
- Legal- federal, state, or local statutes and interpretations of laws that affect TMF capability

The following factors were drawn from national studies, experience of DWSRF Program staff, and from knowledge gained by the DMF in administering the Drinking Water Program over the years.

Factors that Encourage Capacity Development

There are several factors that currently enhance the capacity of PWSs in North Dakota. This section is not meant to address all possible factors that enhance the capacity of water systems, but rather to identify those providing the greatest enhancement to capacity. An important factor is that the Department of Environmental Quality houses all programs that deal directly with drinking water related programs.

Enhancements at the Federal Level

- US Congress- allots DWSRF funding monies
- EPA- requires enforcement of NPDWR
- EPA- provides primacy to states
- EPA- performs Drinking Water Infrastructure Needs Surveys every four years

Enhancements at the State Level

- DWSRF Program- administers the Drinking Water State Revolving Fund
- DWSRF funded capacity development trainings, including asset management
- Drinking Water Program- implements the SDWA
- CWSRF Program- administers the Clean Water State Revolving Fund in North Dakota
- Groundwater Program- administers groundwater protection programs, including the Wellhead Protection and Source Water Assessment Programs
- ND Pollutant Discharge Elimination System (NDPDES) Program- administers discharge control of contaminants to surface water
- Watershed Management Program- administers the surface water protection program in North Dakota
- Operator Certification and Inspections Program- administers the operator certification program, provides training of water system operators, awards continuing education units (CEUs), and performs sanitary surveys
- Public Finance Authority- provides financial assistance to the DWSRF Program under contract and provides short term financing to PWSs
- ND Plumbing Board- licenses plumbing contractors and assures compliance with The Uniform Plumbing Code
- State Water Commission- issues allocation permits to control water usage in North Dakota
- Midwest Assistance Program- provides on-site and regional financial training for PWSs utilizing DWSRF set-aside funds through contract
- ND Rural Water Association- provides on-site technical assistance, including source water protection assistance to PWSs utilizing DWSRF set-aside funds through contract
- ND Chapter of the American Public Works Association- promotes professional excellence and public awareness

- ND Chapter of the American Water Works Association- provides research, education, and training for water related issues
- ND Consulting Engineers Council- provide engineering expertise
- ND Water Pollution Control Conference- sponsors an annual joint meeting of professional organizations in North Dakota which provides networking and training opportunities with CEUs for water professionals
- Annual Drinking Water Week- provides public awareness of the need to protect drinking water sources
- Rural water systems- rural water systems located throughout North Dakota provide water to many PWSs through consolidation or regionalized service

Enhancements at the Local Level

- Local and district public health units- conduct sanitary surveys of transient noncommunity PWSs
- Public water systems- networking among local area PWSs sharing equipment and expertise

Factors that Impair Capacity Development

There are also factors that impair capacity of PWSs in North Dakota. This section is not meant to address all possible factors that impair the capacity of water systems; but rather, to identify those causing the greatest impairment to capacity.

Impairments at the Federal Level

- Not all federal agencies that provide funding are involved in capacity development
- Rule interpretations may differ between programs
- Federal regulations are complex
- Federal regulations are ever-increasing
- Unfunded mandates
- Insufficient funding to address needs

Impairments at the State Level

- Resource limitations
- Lack of education to the consumer
- Funding limited to nonprofit noncommunity and community PWSs
- Water rate structures established at the discretion of the water system (except when funding applications are made)

Impairments at the Local Level

- Lack of planning
- Lack of financial management
- Unmetered water
- Lack of training/education for council or board members
- Lack of public awareness
- Failure or inability to understand regulations
- High turnover both for operators and governing officials

- Difficulty in finding a certified operator
- Difficulty in obtaining financing
- Small and/or declining population
- Insufficient rates/funds
- Low incomes
- Resistance to rate or tax increases
- Resistance to lose autonomy
- Lack of asset management

Element C: Description of How North Dakota Will Use the Authority and Resources of the SDWA

The SDWA requires each state to consider developing *“a description of how the State will use the authorities and resources of this title or other means to- assist public water systems in complying with national primary drinking water regulations; encourage the development of partnerships between public water systems to enhance technical, managerial, and financial capacity of the systems; and assist public water systems in the training and certification of operators.”*

North Dakota intends to use the following tools to assist and improve public water system capacity.

Existing Tools

- Sanitary surveys
- Operator Certification Program
- Working relationship with other agencies and organizations
- Training sessions at the annual operator training school
- Publication of articles in the Official Bulletin (official publication of the ND Water and Pollution Control Conference)
- Technical assistance organizations
- Enforcement

New Tools for Capacity Assessment and Development

- Self-Evaluation (Appendix E)

Element D: Establishing a Baseline and Measuring Improvements

The SDWA requires that North Dakota *“must consider, solicit public comment on, and include as appropriate- a description of how the State will establish a baseline and measure improvements in capacity with respect to national primary drinking water regulations and State drinking water law.”*

North Dakota currently conducts several activities that can be used to establish a baseline for existing PWS capacity.

Drinking Water Program

North Dakota’s Drinking Water Program currently monitors PWS statistics and compliance status under the SDWA. This information will be used to establish a baseline for all PWSs and to provide the method of measuring improvements over time relative to capacity.

- Types of PWSs
- Number of PWSs
- Population served by the PWSs
- Public water systems out of compliance with SDWA
- Public water systems with monitoring and reporting violations
- Public water systems in compliance with the SDWA
- Public water systems that are Enforcement Targeting Tool (ETT) 11 or greater under the SDWA

Operator Certification and Inspections Program

The Operator Certification and Inspections Program monitors PWS compliance with state operator certification requirements. They also maintain a list of PWSs that currently are lacking an appropriately certified operator for their class of water system. In addition, they award and monitor CECs earned and needed by operators to maintain certification.

Sanitary Surveys

The Operator Certification and Inspections Program also performs sanitary surveys of community and nontransient noncommunity water systems. The program evaluates conditions that must be corrected and monitors corrections of deficiencies.

Transient noncommunity water systems (TNCWS) are surveyed on-site by the Department.

Licensing and Permit Data for TNCWS

The Division of Food and Lodging maintains information regarding licensing and permit violations related to TNCWS.

In addition to the above activities, the volume of capacity activity will be tracked. This includes:

- The number of requests for capacity or asset management assistance
- The number of site visits conducted by DMF staff to provide technical or asset management assistance
- The number of contracted technical or asset management assistance site visits
- The number of contracted technical or asset management assistance training sessions provided

Element E: Identifying Interested Persons

The SDWA requires that North Dakota must consider *“an identification of the persons that have an interest in and are involved in the development and implementation of the capacity development strategy.”*

The Department has previously identified stakeholders and persons interested in capacity and asset management issues. To identify other potentially interested parties and encourage additional involvement, a 30-day advertised public hearing was held to solicit input and comments on the draft strategy. Based on past experience with public participation in previous rule development and changes, North Dakota feels that it is more productive and effective to develop a draft strategy prior to soliciting input from stakeholders and the general public. The draft strategy was available to any and all interested persons. The stakeholders and interested

persons were informed of the date of the public hearing to solicit comments regarding the draft strategy.

All entities previously identified and invited to provide input on capacity and asset management issues were contacted by mail informing them of the hearing and the opportunity to provide comments on the draft strategy. Stakeholders and interested parties are listed in Appendix A. All comments received were considered in finalizing the strategy.

Element F: Asset Management

The SDWA requires that North Dakota must *“consider, solicit public comment on, and include as appropriate a description of how the state will (1) encourage development by public water systems of asset management plans that include best practices for asset management and (2) assist, including through the provision of technical assistance, public water systems in training operators or other relevant and appropriate persons in implementing such asset management plans.”*

The asset management description must include how the state will use the following five core questions to satisfy the requirements of Element F:

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

Current State of the Utility’s Assets

Many PWSs have inaccurate or incomplete records of their assets or rely on the memory of their operators for the location of assets. As a result, assets may not be maintained properly or may even be difficult to locate during an emergency. Preparing an asset inventory is the primary step to addressing this question.

The Department has and will continue to offer training to PWSs on how to prepare an asset inventory. Training may be delivered by in-house staff or contracted out to technical assistance providers. Training may be held independently or in conjunction with operator certification training or conferences. The Department will also develop and maintain a webpage that will guide the user to resources available online through a variety of sources.

Utility’s Required “Sustainable” Level-of-Service

A PWS must identify their short- and long-term performance standards. This may include quality, quantity, reliability, and environmental standards.

The Department has and will continue to offer training to PWSs on how to identify their level-of-service standards. Training may be delivered by in-house staff or contracted out to technical assistance providers. Training may be held independently or in conjunction with operator certification training or conferences. The Department will also develop and maintain a webpage that will guide the user to resources available online through a variety of sources.

Critical Assets

After preparing an inventory and identifying level-of-service standards, a PWS must identify the specific assets that are critical to sustained performance and evaluate the effect the failure of each asset may have on the system.

The Department has and will continue to offer training to PWSs on how to evaluate asset criticality. Training may be delivered by in-house staff or contracted out to technical assistance providers. Training may be held independently or in conjunction with operator certification training or conferences. The Department will also develop and maintain a webpage that will guide the user to resources available online through a variety of sources.

Minimum Life-Cycle Cost Capital Improvement Plans and Operations and Maintenance Strategies

Asset management helps PWSs to identify maintenance and replacement needs throughout the future. Maintenance tasks are scheduled and tracked. Replacement time frames are established so the PWS may plan for the cost in the future.

The Department has and will continue to offer training to PWSs on how to develop capital improvement plans and operations and maintenance strategies so that a minimum life cycle cost can be attained. Training may be delivered by in-house staff or contracted out to technical assistance providers. Training may be held independently or in conjunction with operator certification training or conferences. The Department will also develop and maintain a webpage that will guide the user to resources available online through a variety of sources.

Long-Term Financing Strategy

This step requires a PWS to consider their budget on capital expenditures, infrastructure, and operating expenditures and to review rates and rate structures. This will ensure that the PWS is able to meet its level-of-service standards throughout the future.

The Department has and will continue to offer training to PWSs on how to develop a long-term financing strategy. Training may be delivered by in-house staff or contracted out to technical assistance providers. Training may be held independently or in conjunction with operator certification training or conferences. The Department will also develop and maintain a webpage that will guide the user to resources available online through a variety of sources.

The Strategy

North Dakota believes that the program elements it has chosen, when taken as a whole, constitute a strategy that will assist PWSs in the acquisition and maintenance of technical, managerial, and financial capability. North Dakota further believes that by requiring an accounting of each element selected to be included in the strategy, it can be demonstrated that adequate capacity exists.

Public water systems found to have weak areas or deficiencies in any of the three areas of capacity (technical, managerial, or financial) or in asset management will be prioritized and scheduled for follow-up activities. The type and degree of assistance provided will depend on the weaknesses or deficiencies identified, and the system's ability to acquire and maintain capacity.

The Process for Prioritizing Systems

By establishing a process for prioritizing water systems (Appendix C), North Dakota will be able to identify and help those systems most in need of capacity assistance. The prioritization system will rank systems using technical, managerial, financial, and asset management indicators. Prioritization will occur at least annually, but also as needs arise.

Following the prioritization process, PWSs ranked ten or higher will be evaluated using existing agency information to determine what type of assistance would most benefit them. If deemed necessary and appropriate, North Dakota will contract with technical assistance organizations to provide capacity assistance, particularly for systems determined to lack financial capability.

The following tools are available, and may be used singly or in combination, to help water systems acquire and maintain capacity:

- On-site visits by DMF staff
- Operator certification
- Training
- Use of technical assistance providers
- Use of DWSRF set-asides
- Public education
- Dissemination of education materials

If technical assistance providers are used, the providers will assist systems with completion of the Self-Evaluation (see Appendix E) and will complete the Capacity Attribute Evaluation (see Appendix G). Once the assistance is completed, the DMF will follow-up with the system to determine if the assistance has achieved the desired results of acquiring and maintaining capacity. The DMF will also measure improvements to capacity for all remaining PWSs by evaluating compliance with the NPDWRs under the SDWA, ETT 11 or greater lists, operator certification lists, and by tracking the volume of capacity activity.

The process is intended to follow the below steps in order:

1. Data collection
2. Prioritize systems to acquire and maintain capacity
3. Establish baseline
4. Determine assistance needed to acquire and maintain capacity
5. Assist systems with appropriate tools
6. Follow-up
7. Track success

After all systems receiving ten or more points have been evaluated and assigned assistance, any additional systems receiving fewer than ten points may be offered assistance to the extent that assistance is available.

Strategy Implementation Schedule

After stakeholders and interested persons reviewed the draft strategy and provided any comments, those comments were appropriately addressed, and a final strategy was sent to EPA Region VIII for review and approval.

The Strategy Implementation timetable is as follows:

Submit draft strategy to EPA Region VIII for review and comment	June 2000
Advertise to the public and specifically inform identified stakeholders of upcoming public hearing regarding draft strategy	June 2000
Hold public hearing on draft strategy, solicit comments, and address all issues	July 2000
Begin process of system prioritization	August 2000
Identify systems lacking adequate capacity and begin the capacity development process	September 2000
Re-prioritize systems for acquiring and maintaining capacity	July 2001 (thereafter annually and as capacity issues occur)
Evaluate the progress of the program	July 2001 (thereafter annually)
Evaluate the success of program tools in acquiring and maintaining capacity	July 2001 (thereafter annually)
Submit draft revised strategy to EPA Region VIII for review and comment	December 2021
Inform identified stakeholders of upcoming public input meeting regarding the draft revised strategy	December 2021
Hold public input meeting on draft revised strategy, solicit comments, and address all issues	January 2022
Submit the final revised strategy to EPA Region VIII	September 2022

North Dakota considers this strategy a dynamic strategy. It is intended to remain subject to change during the comment and evaluation process, and as issues arise.

Future Reporting Requirements

EPA's *Guidance on Implementing the Capacity Development Provisions of the Safe Drinking Water Act Amendments of 1996* requires that North Dakota perform the following activities:

Ongoing Implementation

- Each year, as a stand-alone submittal or as part of the capitalization grant application, North Dakota must provide documentation showing ongoing implementation of the capacity development strategy by September 30th of each year. The state fiscal year ends June 30th.

Listing of Systems with a History of ETT 11 or Greater (§1420(b)(1))

- States must prepare, periodically update, and submit to the EPA Administrator a list of CWSs and NTNCWSs that have a history of ETT 11 or greater. States must also, to the extent practicable, provide reasons for the noncompliance of these systems.

Note: In 2012 EPA moved to the ETT and EPA reviews any community and NTNC system with an ETT of 11 or greater.

Report to the EPA Administrator (§1420(b)(2))

- States must submit a report to the EPA Administrator by August 6, 2001, that details the success of enforcement mechanisms and initial capacity development efforts in helping those PWSs listed as having a history of ETT 11 or greater to improve their technical, managerial, and financial capability.

Report to the State Governor (§1420(c)(3))

- No later than two years after a state develops a capacity development strategy, and every three years thereafter, each state's primacy agency must submit a report to the state's governor and to the public that details the efficacy of the state's capacity development strategy and that outlines the progress made towards improving the technical, managerial, and financial capability of PWSs in the state including efforts of the state to encourage development by public water systems of asset management plans and to assist public water systems in training relevant and appropriate persons in implementing such asset management plans..

Failure to produce any of the above reports will constitute a basis for DWSRF withholding since these reports, required under §1420(b)(3) and §1420(c)(1), are considered a part of the capacity development strategy. However, EPA will not base withholding determinations on any type of judgements or inferences drawn from the reports regarding the relative merits or efficacy of North Dakota's capacity development strategy. Further, in statute in §1420(c)(4) explicitly prohibits EPA from reviewing decisions of North Dakota regarding any particular PWS as part of a capacity development strategy. Such decisions regarding individual PWSs may not serve as a basis for withholding funds. North Dakota intends to fulfill the above reporting requirements.

Appendix A: Stakeholder Contact List

The below parties have been identified as having an interest in capacity issues. As a means to further encourage involvement, the Department directly mailed a copy of the hearing notice to these parties.

- PWSs
- Consulting engineers
- North Dakota Consulting Engineers Council
- Local and District Health Units
- North Dakota League of Cities
- North Dakota Association of Counties
- North Dakota Section of the American Water Works Association
- Regional Planning Councils
- North Dakota Rural Water Systems Association
- Midwest Assistance Program
- North Dakota Department of Water Resources
- U.S. Department of Agriculture, Rural Development
- North Dakota State Plumbing Board
- North Dakota Public Finance Authority
- North Dakota Parks and Recreation Department
- North Dakota Association of Builders
- North Dakota Association of Realtors
- North Dakota Bankers Association
- North Dakota Manufactured Housing Association
- North Dakota Department of Public Instruction
- North Dakota Water Coalition
- North Dakota Water Users Association
- Associated General Contractors of North Dakota

Appendix B: Responsiveness Summary

Summary of Public Comments and Responses on the Draft North Dakota Existing Water System Capacity Development Strategy (June 2000)

The public was invited to comment on the draft North Dakota Existing Water System Capacity Development Strategy (strategy) dated June 2000 at a public hearing held on Thursday, July 27, 2000 at 1:30 p.m. CDT at the Environmental Training Center, 2639 East Main, Bismarck, ND. Notice of the hearing was published in the Bismarck Tribune, Grand Forks Herald, The Forum (Fargo), and the Minot Daily News 30 days prior to the hearing date (apart from The Forum which was 24 days). The notice clearly describes the purpose of the hearing, included contact information for requesting a copy of the strategy, and defined a comment period extending one week beyond the hearing date.

To further encourage involvement, the Department directly mailed a copy of the hearing notice to identified stakeholders (see Appendix A). The stakeholder contact list includes entities previously contacted for input on capacity issues. The draft strategy was made available to any interested party. Included in the notice was a statement indicating that the Department would fully consider all written or oral data, views, or arguments on the draft strategy received by August 4, 2000. Below is a summary detailing comments received as well as how the comments were considered in finalizing the strategy.

The public hearing was attended by one individual representing public water systems, one individual representing state agencies, and one technical assistance provider. One attendee presented an oral comment related to the Sample Financial Spreadsheet (Appendix F). The attendee suggested asking for historical financial data before the current year. The Department determined that although a financial history may prove interesting concerning a system, it is more appropriate to encourage a system to project future needs to better acquire and maintain capacity.

Written comments were received from the Midwest Assistance Program, Inc. and the ND Municipal Bond Bank. A summary of the comments and how they were addressed follows.

1. One commenter pointed out typographical errors.

Typographical errors have been corrected.

2. One commenter suggested that it might be helpful to restate to the time frame in which systems will be re-prioritized.

The commenter acknowledged that, restating the time frame for re-prioritizing systems for acquiring and maintaining capacity would be redundant. It would also be misleading since re-prioritizing occurs as capacity issues occur.

3. One commenter felt that the “Existing Water System Self-Evaluation Questionnaire” (Appendix E) is somewhat subjective for the person completing the questionnaire.

Systems targeted for assistance through the prioritization process will be contacted and requested to complete a self-evaluation questionnaire. By completing the questionnaire, each system will be able to identify and understand areas of strength and weakness related to their system. Each system is best able to evaluate their own system without comparison to other water systems. The information provided in the self-evaluation questionnaire, along with a review of the existing agency information, and a telephone interview will be used to determine what type of assistance would most benefit the system to acquire and maintain capacity. The questionnaire is also intended to be a tool to educate systems of appropriate attributes of a system with capacity. The Department feels the questionnaire is appropriate for the intended purpose.

4. One commenter noted that not all communities are required to complete full financial audits, just submit an audit report.

The questionnaire uses probing questions to determine if the system can demonstrate financial capability regardless if there is a law requiring actions. A system can perform a financial audit independently of “audit” requirements.

5. One commenter suggested a clarification to the determination of coverage for debt service on the “Sample Financial Spreadsheet” (Appendix F).

A new line item titled “Net Operating Water Revenues (2d-5p)” has been incorporated.

Summary of Comments from Stakeholder Meeting (January 2022)

Stakeholders were invited to comment on the Draft Revised Existing Water System Capacity Strategy (strategy) dated November 2021 at a stakeholder meeting held on Thursday, January 6, 2022 at 1:30 p.m. CDT on Microsoft Teams. Notice of the hearing was sent by email to the PWSs and consulting engineers, sent by postal mail to the remainder of the stakeholders identified in Appendix A, and published on the department’s website on December 1, 2021. The notice clearly describes the purpose of the hearing, included contact information for requesting a copy of the strategy, and defined a comment period extending three weeks beyond the meeting date. The strategy itself was published on the department’s website.

Comments on the strategy were solicited via the following methods:

- Participation in the online stakeholder meeting by responding to polls, providing verbal, comment, or using the chat feature
- Phone
- Email
- Postal mail

Sixteen individuals attended the online stakeholder meeting, representing a variety of water system operators, water system managers, technical assistance providers, and consulting engineers. Attendees were asked to participate in periodic polls during the meeting, questions were posed to give attendees the opportunity to provide comment regarding specific topics, and open discussion was invited on each element of the strategy and the strategy as a whole.

A summary of the comments and how they were addressed follows.

1. One commenter noted that South Dakota offers free online training that has been beneficial for water treatment plant operators. The suggestion was made that North Dakota consider doing something similar or collaborate with South Dakota on future online training.

The NDDEQ started offering an online training option for operators to receive credits toward their continuing education requirements in 2021 as a result of in-person training cancellations due to COVID-19. Online training continued as an option in 2022 and will be evaluated for possible continuation in the future. The training has not been able to be offered free of charge because the NDDEQ uses a platform employed by a local community college to verify that attendees are participating in the course.

2. One commenter noted that the North Dakota Water and Pollution Control Conference has been beneficial to their system. The suggestion was made to provide flexibility so that operators may be able to receive partial credits for partial attendance rather than an all-or-nothing option.

The NDDEQ has made improvements to attendance tracking at the conference over the years. However, tracking attendance at individual events at the conference is not sophisticated enough at this time that partial credits can be given. The NDDEQ will continue to look for ways to improve attendance tracking.

3. One commenter noted that sanitary surveys and certification requirements for DWSRF loans has been beneficial to gaining the support of city council members for funding or additional positions.

Noted. The NDDEQ will continue to use these techniques.

4. One commenter noted that the North Dakota Section of the American Water Works Association should be added to the stakeholders list in Appendix A.

The North Dakota Section of the American Water Works Association has been added to the stakeholder list.

5. One commenter noted that Midwest Assistance Program has the capacity to assist with asset management in a geographic information systems (GIS) format and that Midwest Assistance Program has attended and conducted asset management training events.

Noted. Midwest Assistance Program will be utilized as needed in the NDDEQ's strategy regarding asset management.

6. One commenter noted that on-site technical assistance and lessons learned from other water systems would be helpful for water systems when developing and maintaining their own asset management plan.

Noted. The NDDEQ will consider contracting with technical assistance providers for on-site technical assistance as appropriate.

Appendix C: Prioritization Form



TECHNICAL ASSISTANCE PRIORITIZATION FORM

DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF MUNICIPAL FACILITIES
 SFN 62048 (11-2021)

Prioritized Systems

A point system will be used by North Dakota to determine a priority ranking of drinking water systems. Points will be awarded to existing water systems to prioritize those systems in need of immediate or future assistance to acquire or maintain capacity or develop an asset management plan. Existing systems accumulating ten or more points will be determined to lack capacity. They will be targeted to receive immediate assistance to acquire capacity. Systems accumulating less than ten points will receive assistance to maintain capacity. Assistance will be provided to systems beginning with the highest ranking.

Facility Name	Prepared by	Date
---------------	-------------	------

Point System

A point system will be used to determine those systems requiring immediate action to acquire capacity (10 or more points). Check all that apply:

		Points
<input type="checkbox"/>	EET 11 or greater under the SDWA	10
<input type="checkbox"/>	Without a plan of action to regain compliance	5
<input type="checkbox"/>	Out of compliance with SDWA (non-EET 11 or greater, excludes monitoring/reporting violations)	8
<input type="checkbox"/>	Without a plan of action to regain compliance	4
<input type="checkbox"/>	Monitoring/reporting violations	6
<input type="checkbox"/>	Major	3
<input type="checkbox"/>	Minor	1
<input type="checkbox"/>	Without a corrective action plan	1
<input type="checkbox"/>	Lack of certified operator	4
<input type="checkbox"/>	Without a plan to gain certification	3
<input type="checkbox"/>	Sanitary survey indicated water system deficiency (each)	2
<input type="checkbox"/>	Without a corrective action plan	3
<input type="checkbox"/>	Out of compliance with DWSRF covenants	3
<input type="checkbox"/>	Not implemented asset management plan	1

Total Points

Appendix D: Self-Evaluation and Capacity Attribute Evaluation

Systems targeted for assistance through the prioritization process (those PWSs ranked ten or higher) will be contacted and requested to complete a self-evaluation questionnaire (see Appendix E). Such systems will also be requested to complete a financial spreadsheet (see Appendix F) to assist them in addressing the financial questions and better understand their financial capability. Systems will be allowed to use a different format for presenting the financial information as long as the same information is provided for both the current year and the following four years.

The questionnaire is designed to enable a comparison of the capacity characteristics of a system to the evaluation criteria shown below. The completed questionnaires will be reviewed by the DMF. Based on the responses, a determination will be made as to what type of assistance would most benefit the system.

By completing the questionnaire, each system will be able to identify and understand areas of strength and weakness related to their system. The questionnaire is not intended to be mandatory. It is intended to be a tool to educate systems of appropriate attributes of a system with capacity. Systems can then utilize appropriate tools to acquire and maintain capacity or an asset management plan. Assistance to acquire and maintain capacity or develop an asset management plan will be available from many sources including, but not limited to, engineering firms, technical assistance providers, the Department, other State agencies, and other water system operators. Assistance tools to be used by the Department include on-site visits by DMF staff or technical assistance providers. The questionnaire and spreadsheet will also be made available to PWSs not targeted for immediate assistance to use as an additional tool to maintain capacity.

Technical assistance providers may assist systems in completing the self-evaluation. Additionally, the technical assistance providers will complete the Capacity Attribute Evaluation as their own independent evaluation of the system.

Capacity Evaluation Criteria

Specific criteria have been identified to evaluate the technical, managerial, and financial capability or asset management plans of existing PWSs. By performing a self-evaluation using the following criteria, a PWS can demonstrate capacity, weak areas of capacity, or inadequate capacity. A system can then take appropriate corrective action using available tools to acquire and maintain capacity either on their own initiative or with outside assistance.

Technical Capability Criteria:

1. Finished water meets all required drinking water standards.
2. The water facilities are operated and maintained by appropriately certified operators, or the system has a plan acceptable to the Department to do so.
3. A valid water permit is issued.
4. Applicable local planning/zoning approvals are met.
5. The water facilities are constructed in accordance with plans and specifications approved by the Department.

Managerial Capability Criteria:

1. The system's owner(s), manager(s), and operator(s) are clearly identified.
2. The system complies with the state's operator certification requirements, or has a plan acceptable to the Department to do so.
3. The system maintains records concerning the design, construction, operation, and maintenance of the water utility, including all records required to document compliance under the SDWA.
4. The system maintains an operation and maintenance (O&M) manual for the water treatment and distribution facilities.

Financial Capability Criteria (CWS and NTNCWS):

1. The system maintains a separate set of accounts for the water utility.
2. The system produces and utilizes an annual budget.
3. Revenues are greater than costs.
4. The operating ratio is greater than 1.0*.
5. The coverage ratio is greater than 1.0**.
6. The system conducts a financial audit of the water utility at a frequency of no less than once every five years.
7. The PWS maintains a reserve account to be used strictly for emergency replacement of water system components or other unanticipated expenses related to the water system.
8. All service connections are metered.

$$* \text{ Operating ratio} = \frac{\text{Total annual water revenues}}{\text{Total annual O\&M and replacement expenditures}}$$

$$** \text{ Coverage ratio} = \frac{\text{Total annual cash revenues} - \text{annual O\&M and replacement expenditures}}{\text{Total annual } \frac{\text{loan}}{\text{capital}} \text{ lease payments} + \text{annual loan interest payments}}$$

Financial Capability Criteria (TNCWS):

1. The system produces and utilized an annual budget.
2. Revenues are greater than costs.
3. Total annual revenues are greater than total annual O&M and replacement expenditures.
4. The system conducts a financial audit at a frequency of no less than once every five years.
5. The system maintains a reserve account to be used strictly for emergency replacement of water system components or other unanticipated expenses related to the water system.

Asset Management Plans:

1. The system has an asset management plan.
2. The system has implemented an asset management plan.
3. The system understands the five core questions of asset management.

By performing a self-evaluation, water systems can determine their own areas of strengths and weaknesses in capacity. Each system will gain an understanding of the attributes of a system that is capable of maintaining capacity and thus be able to help themselves in acquiring and maintaining capacity.

Note: All existing PWSs will be evaluated and prioritized to determine those systems most in need of assistance to acquire and maintain capacity. The DMF will utilize internal data from existing agencies to perform the prioritization.

Appendix E: Self-Evaluation Questionnaires



SELF-EVALUATION QUESTIONNAIRE FOR COMMUNITY AND NONTRANSIENT NONCOMMUNITY WATER SYSTEMS

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF MUNICIPAL FACILITIES
SFN 62052 (11-2021)

System Name	Person Interviewed
Prepared By	Date

Yes No NA

Technical Capability

1. Does your system have a reliable source of drinking water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does your source provide an adequate quantity of drinking water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is your source water adequately protected from contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Can your system provide water that meets SDWA standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is your system constructed in accordance with NDDEQ approved plans and specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is any of the system's infrastructure in need of immediate repair? If yes, identify repair needs on separate sheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Has the life expectancy of any of the system's infrastructure components been exceeded? If yes, identify components on separate sheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Does your system have appropriately certified operators or a plan to obtain such operators?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Do your operators have sufficient technical knowledge of applicable standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Can your operator effectively implement appropriate technical knowledge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Do your operators understand the system's technical and operational characteristics?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Does your system have a valid water use permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Are applicable local planning/zoning approvals met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Does your system have an operations and maintenance program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Managerial Capability

1. Is your system's owner clearly identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Can the owner be held legally responsible for the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are your system's operator and manager clearly identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is your system properly staffed and organized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	NA
5. Do the owner/manager understand the regulatory requirements and system operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Do the owner/manager have adequate expertise to manage water system operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Do your system's personnel have the necessary training and qualifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Does your system maintain records regarding the design, construction, operation, and maintenance of the water facilities, including all records to document SDWA compliance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does your system maintain an O&M manual? Note: applies if treatment is provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Does your system interact well with customers, regulators, and other entities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is your system aware of external resources for assistance (i.e., technical, managerial, & financial assistance)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Financial Capability

1. Do your system's revenues cover costs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are water rates/charges adequate to cover the cost of providing water and maintaining the system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does your system maintain a reserve account strictly for water system emergencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is your system financially stable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Does your water system have access to financial capital through public or private sources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Does your system produce an annual budget?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Does your system keep and maintain separate books and records for your water system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Does your system utilize a financial spreadsheet such as the attached?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are appropriate budgeting, accounting, and financial planning methods and controls used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Does your system conduct a financial audit at a frequency of no less than once every five years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Does your system manage its revenues effectively?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all service connections metered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Asset Management

1. Do you understand the current state of your system's assets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the system's "sustainable" level-of-service been determined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have assets critical to sustained performance been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	NA
4. Have strategies been developed for the system’s best “minimum life-cycle cost” infrastructure replacement and an operations and maintenance plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Has a strategy been developed for the system’s best long-term financing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Public water systems have core responsibilities under the SDWA (see below). These responsibilities were discussed with the system as part of the technical assistance visit. The system was also advised to contact the Municipal Facilities Division (328-5211) on all matters pertaining to drinking water.

- **Monitoring** - collect required drinking water samples within allowable time frames and submit the samples to a certified laboratory for analysis
- **Reporting** - submit laboratory results, reports (such as the Consumer Confidence Report), and public notices (due to violations) to the NDDEQ
- **Compliance** - meet applicable drinking water standards, install treatment if necessary and approved by the NDDEQ to meet standards, operate and maintain the water system to ensure the reliable delivery of safe drinking water that meets standards, employ appropriately certified operators as required by the NDDEQ
- **Public Notification (PN)** - conduct PN for violations as instructed by the NDDEQ
- **Plans & Specifications (P&S)** - obtain NDDEQ approval of P&S before making water system changes
- **Records** - maintain records to document SDWA compliance (test results, reports, public notices, P&S, O&M, and all NDDEQ correspondence)

Signature	Date
-----------	------



SELF-EVALUATION QUESTIONNAIRE FOR TRANSIENT NONCOMMUNITY WATER SYSTEMS

DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF MUNICIPAL FACILITIES
 SFN 62051 (11-2021)

System Name	Person Interviewed
Prepared By	Date

Yes No NA

Technical Capability

1. Do you have a reliable source of drinking water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does your source provide an adequate quantity of drinking water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is your source water adequately protected from contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is your well equipped with a proper sanitary seal and protected against surface flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Can your well be properly disinfected without major changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you know the depth of your well? Depth: _____ ft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you know the distance of the closest well to yours? Distance: _____ ft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you know whether other demands are being placed on your water source?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Can your system provide water that meets SDWA standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have you ever tested your water for contaminants other than bacteriological contaminants (such as, but not limited to, hardness, iron, manganese, sulfate, chloride, TDS, fluoride, arsenic, radon)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is your system constructed in accordance with plans and specifications approved by the NDDEQ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Is any of the system's infrastructure in need of immediate repair? If yes, identify repair needs on a separate sheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Has the life expectancy of any of the system's infrastructure components been exceeded? If yes, identify components on a separate sheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Do you or your operator understand the system's technical and operational characteristics? Name of operator: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Have you and/or your operator had any training on operation and maintenance of a water system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. If training were available, would you and/or your operator be willing to attend?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Yes No NA

17. Do you or your operator perform any routine maintenance on the water system?

Frequency: _____

18. Do you have a run-time meter on your well pump and/or pressure pump?

19. Do you routinely flush your pressure tank and water lines?

20. Does your system have a valid water use permit?

21. Are applicable local planning/zoning approvals met?

Managerial Capability

1. Do you make all decisions regarding the water system? If not, who?

2. Do you feel that you have the necessary training and qualifications to operate the water system?

3. Do you understand your SDWA regulatory requirements and system operations?

4. Do you know who to contact at the NDDEQ regarding drinking water problems and regulatory matters (i.e., violations)?

5. Do you know what to do if a violation occurs (i.e., call NDDEQ, perform public notification as instructed, work with the NDDEQ to correct violation)?

6. Do you have a routine schedule for sample collection (i.e., bacti samples)?

7. Do you have an emergency plan for your water system (i.e., if well fails, etc.)?

8. Do you maintain records regarding the water system (water test results, plans and specifications, O&M, all NDDEQ correspondence)?

9. Are O&M manuals available for water equipment (i.e., softeners, iron filters, pumps)?

10. Do you have a particular person or contractor that you contact if you have problems with your water system?

Name of person or business: _____

11. Have you had to contact this person/contractor for assistance in the past 3 years?

12. Are you aware of other resources for assistance in operating a water system?

Financial Capability

1. Do your business revenues cover your business costs?

2. Do you have a savings or reserve account for major expenditures?

3. Do you maintain a reserve account strictly for water system emergencies?

4. Do you know what it would cost to replace your water system?

	Yes	No	NA
5. Is your business financially stable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you have a line of credit with a local bank to borrow money or access to other financial capital for your business?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you have an accounting system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manual bookkeeping <input type="checkbox"/>		Computerized system <input type="checkbox"/>	
Data entered: Daily <input type="checkbox"/>		Weekly <input type="checkbox"/>	Monthly <input type="checkbox"/>
Person handling money _____			
8. Do you feel that you have adequate expertise to use a computerized accounting system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Do you prepare an annual budget for your business?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Can you identify your water system expenses from your other business expenses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Do you utilize a financial spreadsheet such as the attached?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Do you have a business plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Do you foresee any major changes in your business over the next 5 years? If yes, describe changes on a separate sheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Do you use an accountant or professional financial advisor to do your taxes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sales tax only <input type="checkbox"/>		Income tax only <input type="checkbox"/>	Sales and income tax <input type="checkbox"/>
15. Do you seek financial advice from your accountant or professional financial advisor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Are you aware of economic development assistance programs (i.e., Small Business Administration, Regional Planning Councils, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Asset Management

1. Do you understand the current state of your system's assets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the system's "sustainable" level-of-service been determined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have assets critical to sustained performance been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have strategies been developed for the system's best "minimum life-cycle cost" infrastructure replacement and an operations and maintenance plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Has a strategy been developed for the system's best long-term financing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Public water systems have core responsibilities under the SDWA (see below). These responsibilities were discussed with the system as part of the self evaluation. The system was also advised to contact the Municipal Facilities Division (328-5211) on all matters pertaining to drinking water.

- **Monitoring** - collect required drinking water samples within allowable time frames and submit the samples to a certified laboratory for analysis
- **Reporting** - submit laboratory results, reports (such as the Consumer Confidence Report), and public notices (due to violations) to the NDDEQ
- **Compliance** - meet applicable drinking water standards, install treatment if necessary and approved by the NDDEQ to meet standards, operate and maintain the water system to ensure the reliable delivery of safe drinking water that meets standards, employ appropriately certified operators as required by the NDDEQ
- **Public Notification (PN)** - conduct PN for violations as instructed by the NDDEQ
- **Plans & Specifications (P&S)** - obtain NDDEQ approval of P&S before making water system changes
- **Records** - maintain records to document SDWA compliance (test results, reports, public notices, P&S, O&M, and all NDDEQ correspondence)

Signature	Date
-----------	------

Appendix F: Financial Worksheet

System Name	Prepared by	Date
-------------	-------------	------

5-year Projections	Year 1 Projected	Year 2 Projected	Year 3 Projected	Year 4 Projected	Year 5 Projected
Enter Year					
1. Beginning Cash on Hand					
2. Cash Receipts					
a. Unmetered Water Revenue					
b. Metered Water Revenue					
c. Other Water Revenue					
d. Total Water Revenues (2a through 2c)					
e. Connection Fees					
f. Interest and Dividend Income					
g. Other Income					
h. Total Cash Revenues (2d through 2g)					
i. Transfers/Additional Revenue Needed					
j. Loans, Grants, or Other Cash Added					
3. Total Cash Receipts (2h through 2j)					
4. Total Cash Available (1 + 3)					
5. Operating Expenses					
a. Salaries and Wages					
b. Employee Pensions and Benefits					
c. Purchased Water					
d. Purchased Power					
e. Fuel Expenses					
f. Chemical Expenses					
g. Materials and Supplies					
h. Contracted Services					
i. Rental Equipment/Real Property					
j. Transportation Expenses					
k. Laboratory Expenses					
l. Insurance					
m. Regulatory Expenses					
n. Advertising					
o. Miscellaneous					
p. Total O&M Expenses (5a through 5o)					
q. Replacement Expenditures (R)					
r. Total O&M + R Expenditures (5p + 5q)					
s. Loan Principal/Capital Lease Payments					
t. Loan Interest Payments					
u. Cash Transfers					
v. Capital Purchases					
w. Other					
6. Total Cash Paid Out (5r through 5w)					
7. Ending Cash Position (4 – 6)					
8. Number of Customer Accounts					
9. Average User Charge/Account (2d / 8)					
10. Coverage Ratio (2h - 5r) / (5s + 5t)					
11. Operating Ratio (2d / 5r)					
12. Year End Reserves					
a. Debt Service Reserve					
b. Bond Retirement Reserve					
c. Capital Improvement Reserve					
d. Replacement Reserve					
e. Other					
13. Total Reserves (12a through 12e)					
14. Year End Operating Cash (7 – 13)					

Note: Attach additional sheets if necessary for clarification

Appendix G: Capacity Attribute Evaluations



CAPACITY ATTRIBUTE EVALUATION FOR COMMUNITY AND NON-TRANSIENT NON-COMMUNITY PUBLIC WATER SYSTEMS

DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF MUNICIPAL FACILITIES
 SFN 62049 (11-2021)

This evaluation is based upon information obtained during the self-evaluation. The below capacity attributes and their importance were discussed with the system as part of the self-evaluation.

System Name	Person Interviewed
Prepared By	Date

	Adequate Capacity	Weak Capacity	NA
Technical Capacity			
Finished water meets applicable drinking water standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has appropriately certified operators or a plan to obtain appropriately certified operators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has a valid water use permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applicable local planning/zoning approvals are met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System construction approved by North Dakota Department of Environmental Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managerial Capacity			
Owner(s), manager(s), operator(s) clearly identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained (plans/specifications, O&M manual, compliance, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O&M manual maintained (applies if treatment provided)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial Capacity			
System maintains separate account for water utility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System produces and uses an annual budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Revenues are greater than costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating ratio (OR) is greater than 1.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coverage ratio (CR) is greater than 1.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial audit conducted at least every 5 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reserve account maintained (emergencies and unexpected expenses)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All service connections metered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asset Management			
System understands the current state of the system's assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Adequate Capacity	Weak Capacity	NA
The system's "sustainable" level-of-service has been determined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assets critical to sustained performance have been identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strategies have been developed for the system's best "minimum life-cycle cost" infrastructure replacement and an operations and maintenance plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is a strategy for the system's best long-term financing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

$$OR = \frac{\text{Water revenues}}{\text{O\&M and replacement expenditures}}$$

$$CR = \frac{\text{Cash revenues} - \text{\&M and replacement expenditures}}{\text{Loan or capital lease payments} + \text{loan interest payments}}$$

Note: all OR and CR cost elements represent total annual costs.



CAPACITY ATTRIBUTE EVALUATION FOR TRANSIENT NON-COMMUNITY PUBLIC WATER SYSTEMS

DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF MUNICIPAL FACILITIES
 SFN 62050 (11-2021)

This evaluation is based upon information obtained during the self-evaluation. The below capacity attributes and their importance were discussed with the system as part of the self-evaluation.

System Name	Person Interviewed
Prepared By	Date

	Adequate Capacity	Weak Capacity	NA
Technical Capacity			
Finished water meets applicable drinking water standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has an appropriately certified operator or a plan to obtain an appropriately certified operator (if required by North Dakota Department of Environmental Quality)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has a valid water use permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applicable local planning/zoning approvals are met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System construction approved by North Dakota Department of Environmental Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has developed and follows an O&M program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managerial Capacity			
Owner(s), manager(s), operator(s) clearly identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Records maintained (plans/specifications, O&M manual, compliance, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O&M manual maintained (applies if treatment provided)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owner understands applicable regulatory requirements and system operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial Capacity			
System produces and uses an annual budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System knows its cost of water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual revenues or sources of funds available to support the water facilities exceeded the cost of water (total annual O&M and replacement expenditures)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial audit conducted at least once every 5 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has designated reserves or sources of funds to address water system emergencies, repairs, or other unanticipated expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System utilizes some type of accounting method to track revenues and expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System has a business plan (5-year plan recommended)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Adequate Capacity	Weak Capacity	NA
Asset Management			
System understands the current state of the system's assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The system's "sustainable" level-of-service has been determined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assets critical to sustained performance have been identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strategies have been developed for the system's best "minimum life-cycle cost" infrastructure replacement and an operations and maintenance plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is a strategy for the system's best long-term financing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>