

WISCONSIN'S CAPACITY DEVELOPMENT STRATEGY

**Prepared by the Wisconsin Department of Natural Resources
Bureau of Drinking Water and Groundwater
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EXECUTIVE SUMMARY

This document presents the approach that the state of Wisconsin will follow to meet the federal capacity development requirements specified in the 1996 amendments to the Safe Drinking Water Act (SDWA). In general, states must prepare a capacity development strategy to assist existing public water systems acquire and maintain capacity. Capacity, in this sense, means that a water system has the technical, managerial, and financial capability to ensure safe drinking water.

The Wisconsin Department of Natural Resources (DNR), as the Primacy Agency for the SDWA, is taking a holistic approach with its capacity development strategy for existing public water systems. The strategy emphasizes the importance of the entire public drinking water program in Wisconsin and the interdependence of its parts. Capacity development weaves together all of the existing drinking water activities into a focused effort to help troubled systems. Wisconsin's capacity development strategy targets not only the significant noncompliers. It is also designed to assist systems that may soon be out of compliance. The goal is to enhance rather than supplant the state's SDWA program.

The DNR will modify its facility contact, inspection, and evaluation processes to incorporate and integrate capacity development elements into existing evaluation activities. Once evaluated, systems that have capacity deficiencies will be prioritized to determine which ones will receive additional assistance. An interim evaluation and prioritization system will be followed until the existing evaluation processes are modified and the data is stored electronically. DNR will initially use existing data sources to evaluate and prioritize public water systems, including:

- Water quality & sampling compliance data – number and type of violations
- Consumer Confidence Report compliance data for municipal and other-than-municipal systems
- Public Service Commission's list of financially troubled municipal systems
- Systems requesting capacity development assistance
- Systems referred to the Capacity Development Coordinator by DNR regional staff
- Systems dealing with emergency situations

There are many SDWA programs and activities that will be used to address the problems faced by public water systems. In Wisconsin, a number of these capacity building "tools" already exist and will continue to be used to help public water systems comply with the federal drinking water regulations. These tools include, but are not limited to: the sanitary survey process, one-on-one technical assistance from government staff, technical assistance contractors, small municipal system educational sessions, the safe drinking water loan program, and operator certification.

Wisconsin is also pursuing some new activities to help public water systems build technical, managerial, and financial capacity including: drinking water coalitions, self-assessments, additional training and workshops, additional guidance documents, and improved DNR staff training and interagency communication.

Capacity development is an ongoing process and not a static endpoint for public water systems. The implementation of Wisconsin's strategy will also be an ongoing process. The DNR will continue to enhance and modify its strategy over time as the problems and needs of public water systems change.

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SECTION 1 – INTRODUCTION

1.1 Background

The 1996 amendments to the Safe Drinking Water Act (SDWA) require states to have a “Capacity Development Program” approved by the U.S. Environmental Protection Agency (EPA). Capacity development is a program to help public water systems strengthen their ability to consistently supply safe drinking water to their customers. The program aims to help public water systems owners and operators, particularly small water systems, improve their technical abilities, managerial skills, and financial resources to comply with the SDWA requirements.

This document presents the approach that the Wisconsin Department of Natural Resources (DNR) will follow to meet the federal Capacity Development requirements specified in the 1996 amendments to the SDWA. States must prepare a capacity development strategy to assist existing public water systems acquire and maintain capacity.

Capacity does not mean just having enough safe drinking water available for everyone in a community. It means that a water system has the technical, managerial, and financial capability to ensure safe drinking water. Capacity can be broken down into three distinct, yet highly interrelated types. They include:

1. **Technical capacity** is the physical and operational ability of a water system to meet the SDWA requirements. Is the source of the water reliable? Is the water system appropriately sized, constructed, and operated? Does the system comply with minimum state operator standards?
2. **Managerial capacity** is a water system’s administrative capabilities. Is there clear ownership of the system? Is there clear identification of operational responsibilities? Is the system aware of state and federal regulations? Are managers prepared for emergency situations?
3. **Financial capacity** refers to the financial resources of the water system, including revenue sufficiency, credit worthiness, and fiscal management. Does the system maintain appropriate financial records? Does the system recognize and plan for the service life of components?

Capacity development is the *process* of public water systems acquiring and maintaining adequate funding, management, infrastructure, and operations so they can provide safe drinking water consistently and cost-effectively.

The Capacity Development Program affects all public water systems. Public water systems are defined and classified as follows:

Public water system: a system providing piped water to the public for human consumption which has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days per year.

- ◆ Community water system: a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Any public water system serving 7 or more homes, 10 or more mobile homes, apartment units, or condominiums.
 - ⇒ Municipal system: community system owned by a county, city, village, town, town sanitary district, utility district, public institution, or a privately owned water utility serving any of the above.
 - ⇒ Other-than-municipal (OTM) system: community system that is not a municipal system.
- ◆ Noncommunity system: public water system that is not a community water system.
 - ⇒ Nontransient noncommunity (NTNC) system: a system that regularly serves at least 25 of the same persons over 6 months per year. Examples include schools, day care centers, and factories.
 - ⇒ Transient noncommunity (TNC) system: a system that serves at least 25 people at least 60 days of the year. Examples include restaurants, motels, taverns, parks, and campgrounds.

1.2 Reasons for Capacity Development in Wisconsin

Prior to authorizing this program, the EPA collected information indicating that many of the public water systems across the country had problems meeting the requirements of the SDWA because of inadequate water system capacity. States that do not develop and implement a capacity development program will lose 20% of Drinking Water State Revolving Fund (DWSRF) money, which is approximately \$1.8 million of federal funding per year for Wisconsin systems. In Wisconsin, this money is essential and used to provide technical assistance to public water systems as well as provide low-interest loans to municipal systems needing to upgrade their facilities.

While a major impetus for capacity development in Wisconsin is the potential loss in federal funding, it is not the only reason. Enhancing and ensuring the technical, managerial, and financial capacity of water systems offers great potential for correcting and preventing noncompliance with safe drinking water standards and for ensuring reliably safe drinking water.

Below is a list of key areas where capacity development could be used as a tool for encouragement and improvement of public water systems in Wisconsin:

- ◆ To encourage infrastructure evaluation and improvement
- ◆ To improve water resource (quality and quantity) evaluations
- ◆ To encourage cooperation between state agencies
- ◆ To expand operational and managerial expertise to non-municipal systems
- ◆ To improve and expand operator training
- ◆ To encourage appropriate financial management and planning

1.3 Wisconsin DNR’s Safe Drinking Water Act Program

In Wisconsin, the DNR is the Primacy Agency for the SDWA. To implement the requirements of the SDWA, the DNR:

- ◆ Establishes drinking water standards and monitoring requirements (Wisconsin Administrative Code Chapter NR 809)
- ◆ Establishes well construction, pump installation, water treatment system and distribution system requirements (Wis. Adm. Code Chapters NR 811 & 812)
- ◆ Licenses well drillers and pump installers
- ◆ Conducts annual inspections (municipal systems)
- ◆ Conducts sanitary surveys (all public systems)
- ◆ Conducts well driller and pump installer surveillance activities
- ◆ Conducts SDWA enforcement activities
- ◆ Issues administrative orders and penalties
- ◆ Conducts plan review activities (municipal, OTM, and selected noncommunity systems) (Wis. Adm. Code Chapters NR 108, 811, and 812)
- ◆ Certifies water system operators (Wis. Adm. Code Chapter NR 114)
- ◆ Reviews wellhead protection plans
- ◆ Conducts source water assessments
- ◆ Administers a State Revolving Fund Loan program
- ◆ Conducts water quality and quantity studies
- ◆ Conducts vulnerability assessments
- ◆ Issues monitoring waivers
- ◆ Conducts training
- ◆ Provides technical assistance
- ◆ Coordinates groundwater research projects
- ◆ Regulates underground injection wells

The DNR Public Water Systems staff are located in a central office, 6 offices in 5 regions, and 20 service centers located in Geographic Management Units (GMU) across the state (refer to Table 1 and the DNR region map in Appendix A). DNR staff is responsible for inspection, evaluation, and assistance for 11,739 public water systems statewide (refer to Table 2).

Numbers need to be updated: Table 1: DNR Public Water System Staff

Location	Experts	Engineers	Specialists	Other*
South Central	1	3	4	4
Southeast	1	3	4	9
Northeast	1	2	9	6
West Central	1	7	7	11
Northern	1	3	4	11
Central Office	0	4	6	7
TOTAL	5	22	34	48

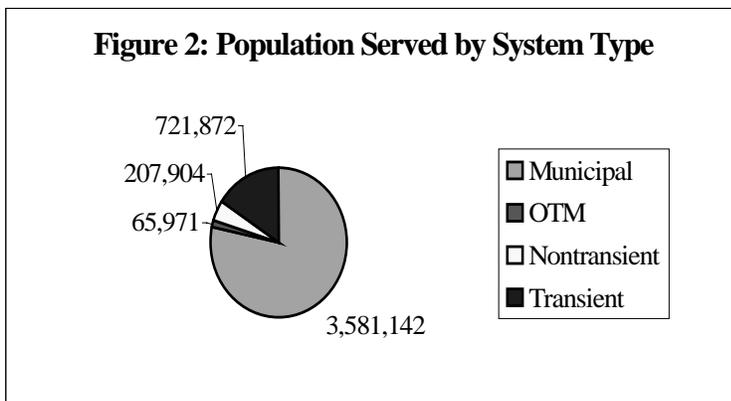
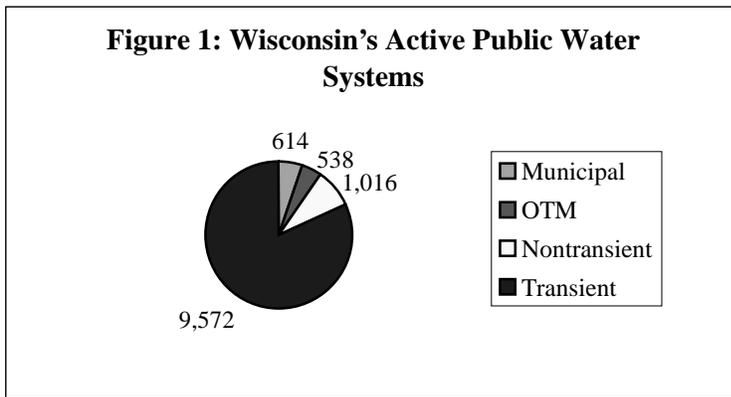
*Includes all support staff, limited term employees, and enforcement employees.

Table 2: Number of Active Public Water Systems*

Region	Municipal	OTM	NTNC	TNC	Total
South Central	164	98	168	1,286	1,716
Southeast	99	235	419	1,767	2,520
Northeast	117	49	171	2,176	2,513
West Central	151	114	175	1,825	2,265
Northern	83	42	84	2,512	2,721
TOTAL	614	538	1,017	9,570	11,739

*Taken from DNR's Drinking Water System Database – 05/2000

Currently, there are 11,739 active public water systems in Wisconsin. Figure 1 illustrates the number of systems by type. Although most of the public water systems are classified as transient noncommunity systems, the majority of the population gets its water from municipal water systems, as shown in Figure 2.



1.4 Partnering State Agencies

In addition to the DNR, other state agencies in Wisconsin have statutory jurisdiction over public water systems, including:

Public Service Commission of Wisconsin

The Public Service Commission of Wisconsin (PSC) plays a large role in determining the financial capacity of municipal water systems. The PSC is an independent agency responsible for the regulation of public utilities, including municipal water systems. The commission receives its authority and responsibilities from the State Legislature. The PSC's purpose is to ensure that, in the absence of competition, adequate and reasonably priced service is provided to utility customers. The PSC sets utility rates and determines levels for adequate and safe service. Most public utilities must obtain PSC approval before instituting new rates or undertaking major construction projects such as new water wells. Wisconsin Administrative Code Chapters PSC 184 and PSC 185 outline the construction and operational requirements, and Chapter 196 of the Wisconsin Statutes set forth rate approval requirements for public water utilities.

In particular, the PSC's Division of Water, Compliance, and Consumer Affairs is responsible for the regulation of water and combined water and sewer public utilities in Wisconsin. The division offers assistance to all of the state's utilities in compliance with the statutes, code, and record keeping requirements and the development of consumer affairs policies. It also coordinates consumer information and resolution of consumer complaints.

Wisconsin Department of Health & Family Services

The Wisconsin Department of Health & Family Services (DHFS) administers a wide variety of programs that assist the state in ensuring the technical capacity of many transient noncommunity systems in Wisconsin. In particular, the DHFS enforces administrative codes (HFS 196, 195, and 178) for the inspection and licensing of food services operations, including restaurants, lodging establishments, including hotels, and campgrounds. In particular, the codes regulating each of these types of establishments require that the wells and pumps be installed in accordance with code chapter NR 812, which governs well drilling and pump installation. Plumbing and plumbing fixtures must conform to the requirements in code chapter Comm 82 (discussed in the next section). In addition, the drinking water at these facilities must comply with the water quality standards established in chapter NR 809.

Wisconsin Department of Commerce

The Wisconsin Department of Commerce (Commerce) has authority over the licensing of mobile home parks and plumbing. Mobile home park licensing is regulated by Commerce's Safety and Buildings Division under the authority of Wisconsin State Statute 101.935. Regulations for mobile home parks are included in Wisconsin Administrative Code Chapter Adm 65. The administrative code regulates the license fee structure and requires owners to submit the mobile home park plans before work begins. This applies to new or expanded mobile home parks. Owners are required to submit the detailed plan for the park, a plumbing plan if the park contains

a private sewer and water system, and also a water quality test to document proof of a safe water sample if the water system is privately owned. If approved, a two-year license is issued. To renew a mobile home park license, a notice is sent out, and fees must be submitted. Commerce also conducts on-site inspections of mobile home parks when there is a new park, a change in ownership, an expansion, or a complaint.

The Department of Commerce has seven state consultant positions and hundreds of municipal agents for the enforcement of the statewide uniform plumbing code, which is covered by Wisconsin Administrative Code Chapters Comm 82 through 87.

Commerce regulates water systems by conducting plan reviews of private water mains (water services that connect two or more buildings located on private property), mobile home parks, and campground water distribution systems. The plans are signed by professionals, and the systems must be installed under the responsibility of licensed master plumbers. There are seven plumbing plan reviewers employed by the department. There are nearly 3,500 individuals licensed to install these water distribution systems in the state.

The plumbing products staff review plumbing materials, appurtenances, and appliances to ensure the safety and health of the public. All water distribution system materials are reviewed for strength, durability, and the chemical composition so water quality is maintained throughout the system. Another duty of the products staff is the review of water treatment devices. Staff members sit on national organization committees for the review of standards and development of new standards, including backflow prevention assemblies, water softeners, reverse osmosis systems, aerobic treatment devices, and various others.

Annual mandatory continuing education is a requirement of Wisconsin Administrative Code Chapter Comm 5, which covers licensing, registration, and certification for a variety of professionals, including plumbers. Commerce provides education to over 2,000 individuals per year, concerning water and drain and vent installation, cross-connection control, water treatment, and many other issues.

The Department of Commerce publishes “The Wisconsin Plumbing Codes Report” monthly, which has a circulation of over 10,000. Information concerning the installation of water distribution piping, water treatment and health-related topics is distributed to the industry through this publication.

Private Onsite Wastewater Treatment Systems (POWTS) are also covered under the authority of the Department of Commerce. Setbacks for wells and water distribution piping are included in the plan review for POWTS.

Wisconsin Department of Agriculture, Trade & Consumer Protection

The Wisconsin Department of Agriculture, Trade, and Consumer Protection’s (DATCP) Groundwater Program monitors, evaluates, and manages the presence of pesticides and fertilizers in groundwater. The program identifies areas with groundwater contamination, investigates

contamination sources, and develops regulations to prevent groundwater contamination above health-based standards.

DATCP's Bureau of Consumer Protection also fields consumer complaints concerning businesses in Wisconsin, including water-related complaints. The role of the bureau is to assure that business practices are fair. Once they receive a complaint, a consumer specialist or investigator contacts the business about the complaint. Although DATCP cannot force a business to resolve a complaint, their contact with the company often results in a solution to a consumer's problem. If the bureau decides that a complaint should be handled by another agency, they will forward the complaint to the appropriate agency. If a business has violated state consumer laws, DATCP may send the business a formal warning notice. If it is a serious and widespread violation, the agency may recommend the case for prosecution to the Department of Justice or a district attorney.

DATCP's Food Safety Division certifies microbiological laboratories that test water for compliance with public health standards prescribed by federal, state, or local laws. The objective of the evaluation program is to assure that laboratories produce consistently accurate results. The program evaluates the laboratory facility and equipment, analytical procedures, the analysts competence, and laboratory records. The Food Safety Division also regulates and issues licenses to businesses that produce bottled water.

1.5 Wisconsin's Drinking Water Sources

Surface water drinking water resources

The name Wisconsin is derived from the Ojibwa term, "gathering place of waters." This reflects an inherent appreciation of the numerous rivers streams and lakes in the state. Wisconsin has 982,163 surface acres of lakes and reservoirs, 57,698 linear miles of streams and rivers and 1,017 linear miles of Great Lakes shoreline. Of these resources, only Lake Superior, Lake Michigan, Lake Winnebago and Rainbow Lake are used for public water supply sources at this time.

Although there are only 20 public water supply systems which use surface water, these systems serve over 1.5 million of the state's 5 million residents. All but one of these systems have intakes on either Lake Michigan, Lake Superior or Lake Winnebago.

Groundwater drinking water resources

Approximately 70% of Wisconsin's private residents and most public water systems use groundwater. Only 20 community water systems use surface water although most of the major cities are entirely surface water-based systems. All of the state's noncommunity water systems use groundwater.

Major aquifers

About two million billion (2,000,000,000,000,000) gallons of water are estimated to be stored underground in Wisconsin. That is enough water to cover the state to a depth of 30 feet.

Approximately 14 billion gallons of water are recharged to groundwater every day. The 1990 estimated daily use of groundwater in Wisconsin was about 600 million gallons.

The state's groundwater reserves are primarily held in the following four aquifers:

1. The sand and gravel aquifer is the surface material covering most of the state except for parts of southwest Wisconsin. The sand and gravel was mostly deposited from glacial ice or in river floodplains. In some places these aquifers are over 300 feet thick. Though sand and gravel form some of Wisconsin's most productive aquifers they are also the most susceptible to contamination because they are closest to the land surface.
2. The eastern dolomite aquifer occurs in eastern Wisconsin from the Door County peninsula to the Illinois border. This aquifer's productivity depends on how many fractures or bedding planes a given well intersects. Where the fractured dolomite occurs at or near the land surface, the groundwater can easily become contaminated.
3. The sandstone and dolomite aquifer is found over the entire state except in the north central portion. In eastern Wisconsin this aquifer lies below the eastern dolomite aquifer and the Maquoketa shale layer. Where it is present, the Maquoketa shale restricts recharge to the sandstone aquifer. In other areas it lies below the sand and gravel layers. It is the primary source of groundwater for the southern and western portions of the state and for large users of groundwater in the eastern portion of the state.
4. The crystalline bedrock aquifer underlies the entire state. In the north central region it is the only aquifer under the sand and gravel aquifer. The crystalline bedrock aquifer often cannot provide adequate quantities of good quality water for larger municipalities or industries.

SECTION 2 – CAPACITY DEVELOPMENT STRATEGY FOR NEW PUBLIC WATER SYSTEMS

The DNR is implementing a program to ensure that new public water systems demonstrate capacity. The program was approved by the EPA on July 7, 1999. The new system capacity development program was authorized by Wisconsin Statutes 280, 281.12, 281.17(8) and (9), which are included in Appendix B. Wisconsin's Attorney General, James E. Doyle, certified this authority in a letter to the EPA in December 1998 (refer to Appendix B).

Capacity development for new public water systems is promulgated in Wisconsin Administrative Code Chapter NR 809 Subchapter VIII, which requires "capacity evaluations" for all new community and nontransient noncommunity water systems prior to construction (refer to Appendix B). This code became effective on September 1, 1999.

2.1 New Municipal Systems

A capacity evaluation is required for all new municipal systems. The evaluation is completed by the DNR as part of the system plan review process. Once the system plans and capacity evaluation are approved, DNR will send a plan approval letter and capacity certification to the owner.

2.2 New Other-Than-Municipal Systems

A capacity evaluation is completed by DNR as part of the plan review process for new OTM systems. Owners, with the assistance of their well driller/professional engineer, must fill out and sign DNR Form 3300-247 (included in the Appendix B) to provide DNR with system capacity information. Once the plan approval is granted and the capacity evaluation is reviewed, DNR will send an approval letter and capacity certification to the system owner.

2.3 New Nontransient Noncommunity Systems

Owners of new NTNC systems must complete DNR Form 3300-246 (included in Appendix B) with the assistance of a well driller or professional engineer. The capacity evaluation process for new NTNC systems is divided into two groups depending on plan review requirements and pumping capacity:

1. Systems subject to DNR plan review (systems with pumping capacity greater than or equal to 70 gallons per minute and all school water systems): A capacity evaluation is completed as part of the plan review. Once the plans and the capacity evaluation are reviewed, DNR will send an approval letter and capacity certification to the system owner.

2. Systems not subject to DNR plan review (pumping capacity less than 70 gallons per minute): A capacity evaluation must still be performed prior to system construction. Owners should send the completed capacity evaluation form (3300-246) to the DNR's Capacity Development Coordinator. Once the capacity evaluation is reviewed, a capacity certification letter will be sent to the system owner.

If the information submitted on the capacity evaluation form is incomplete, the form will be returned to the applicant, requesting the missing information within 30 days. Failure to return the completed form could result in enforcement action.

SECTION 3 – CAPACITY DEVELOPMENT STRATEGY FOR MUNICIPAL SYSTEMS SEEKING STATE REVOLVING FUND ASSISTANCE

3.1 Wisconsin's Safe Drinking Water Loan Program

In addition to capacity development, the 1996 amendments to the SDWA established the Drinking Water State Revolving Fund (DWSRF). The goal of the program is to provide states with a financing mechanism for ensuring that safe drinking water is delivered to the public. States can use the federal grant money to provide financial assistance to communities installing and upgrading drinking water system infrastructure.

Wisconsin is using part of its DWSRF allotment to provide low-interest loans to eligible municipal water systems for infrastructure improvements. Under the authority of Wisconsin

Statutes 281.59 and 281.61 (included in Appendix C), Wisconsin DNR and the Department of Administration established the “Safe Drinking Water Loan Program” (SDWLP). Wisconsin’s Attorney General, James E. Doyle provided verification of this authority to EPA in June 1998 (refer to Appendix C).

Wisconsin Administrative Code Chapter NR 166 (included in Appendix C) outlines the loan program implementation requirements, including a priority ranking system for funding projects. The Safe Drinking Water low-interest loans may be used to plan, design, construct or modify municipal water systems.

3.2 Evaluating SDWLP Applicant Capacity

The DNR uses a combination of “tools” to evaluate capacity of municipal systems seeking DWSRF assistance through the Safe Drinking Water Loan Program. These tools include a loan application, an evaluation and ranking form, engineering reports and plans, sanitary survey reports, and state drinking water database information. In addition, Wisconsin Administrative Code NR 166 sets eligibility and ranking criteria and system design requirements for loan applicants. The tools used to evaluate the capacity of loan applicants are discussed in more detail below:

Project Eligibility Criteria

Wis. Adm. Code Section NR 166.06 outlines criteria, which systems must meet to be eligible for the loan program. Capacity development requirements are included in the code to ensure that loans are given only to systems with adequate capacity. The SDWA prohibits states from providing DWSRF assistance to public water systems that do not have technical, managerial, and financial capacity. However, the SDWA, as well as Wis. Adm. Code Section NR 166.06(1)(e), allows a system lacking adequate capacity to receive DWSRF assistance if the project will ensure that the system returns to and maintains compliance with the SDWA requirements.

Financial Assistance Agreement Requirements

NR166.11 includes a list of conditions that applicants must meet before entering into a financial assistance agreement. Specifically, Wis. Adm. Code Section NR166.11(4) states that applicants must have “the legal, institutional, managerial, technical and financial capability to insure that adequate construction, operation and maintenance of the water system.”

In addition, if a public water system is regulated by the PSC, the applicant must file the appropriate application with the PSC to increase rates. The PSC must then issue an order to authorize the water rates and rules. If a system is not regulated by the PSC, the applicant must develop and adopt water rates and operating rules.

Financial Assistance Application

Wisconsin’s Safe Drinking Water Loan Program is a lending operation. Therefore, the applicant evaluation process emphasizes criteria used to make lending decisions. It requires a thorough and

comprehensive review of each applicant's financial practices. The borrower must have the financial capacity to repay the loan and to retain financial solvency over the life of the loan.

Municipal systems interested in receiving a loan must complete a "Financial Assistance Application" (Form 8700-262 included in Appendix C) to demonstrate and document their financial capacity. An applicant's financial capacity is demonstrated by showing a dedicated source of repayment and the ability of the system to repay each loan according to its terms and conditions. Applicants must supply information pertaining to rates, financial planning, and budget, including, but not limited to:

- ⇒ The municipality's current year budget with year-to-date-information
- ⇒ The current year water department budget
- ⇒ The last 3 years of financial audit reports (or internal financial statements for the municipality if no audit was done)
- ⇒ A schedule of the principal and interest for each outstanding bond issue for the next 5 years
- ⇒ The latest official statement for previous bonds/notes
- ⇒ The proposed user charge system
- ⇒ Any outstanding water revenue debt
- ⇒ The water system customer statistics

Evaluation and Ranking Form

DNR also requires the submission of technical and managerial capacity information. The borrower must not only be able to repay the loan, but must also be able to maintain the system over the life of the loan. Wis. Adm. Code NR166 Subchapter II establishes a priority ranking and scoring system, which includes technical and managerial capacity scoring criteria. Applicants must complete a "Priority Evaluation and Ranking Form" (Form 8700-265 included in Appendix C). The form contains priority scoring criteria, which are used to establish a list of eligible projects to be funded by the loan program. The applicants are scored in the following categories: 1.) risk to human health, 2.) financial need, 3.) secondary contaminant violations or system compliance with NR811, and 4.) system capacity. Applicants must answer questions regarding water quality sampling results, infrastructure, as well as management programs. Please refer to the form for the specific questions and associated points used for ranking.

Sanitary Survey Reports

For projects requesting major facility changes, the DNR reviews the sanitary survey reports to verify that the proposed project addresses any deficiencies identified during the sanitary survey process. The sanitary survey review ensures that the necessary system modifications are included as part of the loan request.

Plan Review Requirements

Wis. Adm. Code Chapter NR108 states that final plans and specifications must be reviewed and approved by the DNR prior to construction. This applies to new community water systems as

well as improvements, extensions, and alterations to existing community systems. SDWLP applicants must comply with this plan review requirement to be eligible for a loan. Specifically, NR166.11(2) requires that the plans and specifications for a project be approved by the DNR prior to entering into a financial assistance agreement.

System Operation & Design Requirements

To meet the plan review requirements in NR108, municipal systems applying for SDWLP funds are also subject to the requirements in Wis. Adm. Code Chapter NR811. NR811 governs the general operation, design and construction of community water systems. The standards apply to new facilities as well as modifications to existing facilities.

Communication Tools

The DNR promotes the loan program on its web site. The URL for the site is:

<http://www.dnr.state.wi.us/org/caer/cfa/EL/Section/drinkingwater.html>

The site provides basic information about the loan program as well as a reference guide that serves as a tool for systems intending to apply for a Safe Drinking Water Loan. The reference guide provides information, listed alphabetically by topic, on the steps and regulations to be followed from the early stages of the loan process through the closeout stage. The site also provides a link to the Bureau of Drinking Water and Groundwater's main page.

DNR also publishes a newsletter, called *Loan Interests*, which includes information updates on the Safe Drinking Water Loan Program, among others. The newsletter is published approximately four times per year and is sent to municipalities, permittees, attorneys, and consulting firms throughout the state. The priority-ranking list of applicants is included in the newsletter to advertise which projects are eligible to receive loans.

3.3 Future Enhancements

The DNR is developing a "Project Eligibility Checklist and Capacity Certification Form." The form will serve as an internal recordkeeping document, which will be kept in the water system file. The purpose of the checklist and certification will be to document and ensure that the necessary information and forms were reviewed prior to certifying the technical, managerial, and financial capacity of the loan applicants. A draft of the form is included in Appendix C.

SECTION 4 – CAPACITY DEVELOPMENT STRATEGY FOR EXISTING PUBLIC WATER SYSTEMS

4.1 Wisconsin’s Capacity Development Goals & Approach

Wisconsin’s water systems have unique needs and circumstances. The 1996 amendments to the SDWA place a strong emphasis on creativity and innovation to create capacity development strategies that meet the needs of a given state. The goal of capacity development in Wisconsin is to enhance, integrate, and improve existing drinking water programs to ensure that all public water systems meet capacity and exceed the requirements of the Safe Drinking Water Act.

In Wisconsin, less than one percent of public water systems have difficulty meeting the SDWA requirements. This may be attributed to Wisconsin having a public water system program since 1919 and a SDWA program since 1978. The various components of the existing program (monitoring, approvals, and inspections), in conjunction with review of municipal water rates by the PSC, are already providing a strong base for developing and maintaining water system capacity.

The DNR, on behalf of the State of Wisconsin, is taking a holistic approach with its capacity development strategy for existing public water systems. The strategy emphasizes the importance of the entire public drinking water program in Wisconsin and the interdependence of its parts. The numerous activities in Wisconsin’s program are mutually dependent. The three types of capacity – technical, managerial, and financial – are mutually dependent as well.

Capacity development can be thought of as a tapestry, which weaves together all of the existing drinking water program activities into a focused effort to help troubled systems. This approach will be more effective than addressing system problems in a piecemeal fashion. The capacity development strategy will target not only the significant noncompliers. It will also be directed broadly towards systems that face the risk of being out of compliance. Wisconsin will be making maximum use of its existing activities, while creating new programs to fill in the gaps. The goal is to enhance rather than supplant the state’s existing SDWA program.

4.2 Consideration of Section 1420(c)(2)(A-E)

Section 1420(c)(2) of the 1996 SDWA amendments requires that states, in preparing their capacity development strategies, consider, solicit public comment on, and include, as appropriate, the following:

- A. 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.
- B. A description of the institutional, regulatory, financial, tax, or legal factors at the federal, state, or local level that encourage or impair capacity development.

- C. A description of how the state will use the authorities and resources of the SDWA or other means to assist public water systems in complying with the National Primary Drinking Water Regulations (NPDWR), encourage development of partnerships between public water systems to enhance the technical, managerial, and financial capacity of the systems, and assist public water systems in training and certification of operators.
- D. A description of how the state will establish a baseline and measure improvements in capacity with respect to 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, including all appropriate agencies of federal, state, and local governments, private and nonprofit public water systems and public water system customers.

The five listed elements (A-E) are included and addressed in Wisconsin's Capacity Development Strategy for existing public systems. All five elements were appropriate and important in creating an effective Capacity Development Program in Wisconsin.

4.3 Public Participation

Public involvement was encouraged throughout the development of Wisconsin's Capacity Development Strategy. The DNR solicited input from public water system stakeholders at every opportunity. The DNR believes public involvement is an essential part of the creation and implementation of a successful program. To secure this involvement, the DNR provided the following opportunities for interested parties to learn about the program and provide meaningful input and comments:

Stakeholder Work Group

In 1998, a stakeholder work group was formed for the development of the *new* water system strategy. This same work group also provided assistance during the creation of the *existing* water system strategy. However, additional stakeholders were invited to participate in the existing system strategy work group. The DNR created a list of capacity development stakeholders (included in Appendix D). The work group then reviewed and revised the list. The DNR sent invitation letters and capacity development information to 20 additional stakeholders. Subsequently, the DNR recruited 9 additional members to the work group.

The final makeup of the work group consists of a wide cross-section of stakeholders, including:

- American Water Works Association – non-profit organization
- Foundation for Rural Housing – non-profit organization
- Madison Water Utility – municipality/system owner
- Mobile home park owner
- Municipal Environmental Group-Water Division – municipal organization
- Public Service Commission of Wisconsin – state agency

- State Laboratory of Hygiene – SDWA certified laboratory
- STS Consultants – environmental consultant
- Waukesha County Department of Parks & Land Use – county agency
- Wisconsin Community Assistance Program – non-profit organization
- Wisconsin Department of Commerce – state agency
- Wisconsin Department of Health & Human Services – state agency
- Wisconsin Department of Natural Resources – state agency
- Wisconsin Geological & Natural History Survey – state agency
- Wisconsin Manufactured Housing Association – non-profit organization
- Wisconsin Rural Water Association – non-profit organization
- Wisconsin Water Well Association – non-profit organization

The work group met regularly to discuss and brainstorm the required elements of the existing system strategy presented in this document. The work group meeting agendas and notes are included in Appendix D.

Public Input Sessions

The stakeholder work group determined the format of public meetings to gather input from a wider audience of people who work with public water systems. The work group decided that the meetings would be structured as “public input sessions” using a question and answer format. The feedback from the input sessions was used to prepare this Capacity Development Strategy.

Four public input sessions were held in Madison, Wausau (2 sessions), and Green Bay in March and early April 2000. A copy of the meeting notice/invite is included in Appendix D. The following people or groups were invited to attend the input sessions:

- Recipients of the DNR’s Wellhead Protection video (over 500 municipal systems)
- Recipients of the DNR’s Water Words Newsletter (9,800 transient noncommunity systems)
- Wisconsin Water Well Association
- Wisconsin Rural Water Association
- American Water Works Association – Wisconsin Section
- Wisconsin Innkeepers Association
- Wisconsin Small Business Administration
- Tavern League of Wisconsin
- Wisconsin Association of Campground Owners
- Wisconsin League of Municipalities
- Wisconsin Manufactured Housing Association
- U.S.D.A Rural Development Employees
- Wisconsin Towns Association

In addition to specific invitations that were sent to these organizations, the meeting was announced on the DNR web site and in various organization newsletters, and phone calls were made to invite people. Every attempt possible was made to make stakeholders aware of the public input sessions.

Attendees were asked questions about what encourages or impairs public water systems from acquiring and maintaining capacity and complying with the SDWA. The questions included:

- A. What problems or impairments do public water systems have in complying with the state and federal drinking water regulations?
- B. How do the current activities of the DNR help (encourage) or hurt (impair) your ability to operate your public water system, including your ability to get or stay in compliance, your ability to manage or fund your system? What other factors (legal, tax, funding, etc.), that may or may not involve DNR, hurt or help your operation?
- C. What additional activities would you like to see DNR add or modify to help public water systems get in compliance with the drinking water regulations? Specifically, what do you like or dislike about the way DNR does sanitary surveys or inspections?
- D. What problems do public water systems have in *protecting* their water systems?
- E. What problems do public water systems have in *locating* safe drinking water?

The public comments collected at the four input sessions are included in a summary report in Appendix D. The comments are discussed further in the “Responsiveness Summary” section below.

Subsequent to the public input sessions, the attendees were given a copy of the summary report, and they were also sent a draft of the strategy to comment on. A copy of the cover letter that accompanied the report and draft strategy is included in Appendix D.

Newsletters

DNR regularly publishes and distributes newsletters to water supply operators, consultants, engineers, local government officials, and other interested individuals. The *Wellhead Protection News* shares current wellhead protection information and encourages communities to develop wellhead protection plans. The newsletter is published semiannually and has a circulation of approximately 2,000 copies. It is sent to officials and staff from municipalities, county health departments, county planning and zoning boards, regional planning commissions, and DNR staff. The Fall 1999 issue included an article on capacity development in Wisconsin.

Water Words is a newsletter that is published quarterly to provide updates on the DNR’s public drinking water programs. It is sent to all of the transient noncommunity systems in Wisconsin. A capacity development article was included in the February 2000 issue.

Capacity Development Web Page

In March 2000, the DNR added a capacity development section to its Bureau of Drinking Water and Groundwater web site. The web site is an important education tool for sharing capacity

development information in an efficient manner statewide. The capacity development section is accessible from the bureau's home page:

<http://www.dnr.state.wi.us/org/water/dwg/index.htm>

The web site includes the following capacity development information:

- General information/background
- Fact sheets & brochures
- New system strategy requirements
- Capacity evaluation forms for new OTMs and NTNCs
- Public input session meeting notices (temporarily posted prior to sessions)
- Draft of the existing system strategy (posted June 1-30, 2000)

Well Driller/Pump Installer Continuing Education

The Capacity Development Coordinator staffed a booth at the Well Driller/Pump Installer Continuing Education Classes. The booth focused specifically on the Capacity Development Program for both new and existing public water systems. The classes were held from January through March 2000 in 8 locations throughout the state. The booth provided an excellent opportunity to educate Wisconsin's well drillers/pump installers about capacity development and also gather input for the existing system strategy.

Responsiveness Summary

The meeting notes, written public comments, and the input session report, included in Appendix D, summarize the dialogue that DNR had with its stakeholder work group and the general public regarding the proposed capacity development strategy. The major points of advice that were offered by the work group and other stakeholders are listed below. References to the appropriate subsection of this report are included to provide DNR's response.

Stakeholder Advice	DNR Response
Use sanitary surveys as the method for conducting capacity evaluations of existing water systems.	Section 4.4
The data that we collect must be meaningful and useful to evaluate capacity.	Section 4.5
DNR inspectors need to develop a positive dialogue with system owners/operators, relaying the goals of the capacity development program.	Section 4.8
Need to address the financial management barriers of small systems – many small systems don't separate the costs of running their systems from their general business expenses.	Section 4.8
Key criteria to prioritize systems – MCL violations, PSC list of problem systems, systems with poor understanding of operations and/or poor oversight, operator certification, and planning policies.	Section 4.6
Create an organized binder of SDWA information for system owners/operators.	Section 4.8

Coordinate information sharing with other agencies that work with public water systems, including PSC and Health. Avoid duplication with other agency data collection.	Section 4.4
Provide additional time for regulatory compliance after a sanitary survey.	Section 4.4
Create more educational programs and training workshops for systems, particularly NTNC and TNC systems.	Section 4.8
Improve consistency in sanitary survey process between DNR regions and staff. Conduct more DNR staff training.	Section 4.8
Improve communication between government agencies at local, state, and federal levels.	Section 4.8
Need to do more to educate water boards/local officials.	Section 4.8
Categorize the capacity evaluation criteria that are appropriate according to system type (ex. Municipal systems would be asked more in-depth questions than transient systems).	Section 4.5

4.4 Evaluating Capacity of Existing Public Water Systems

Sanitary Surveys

Sanitary surveys of water systems are essential to assuring safe drinking water on a continuing basis. Surveys are a mechanism to detect construction, maintenance, and operational deficiencies before an unsafe water condition occurs. In cases where unsafe water occurs, the sanitary survey may be used to isolate the problem so that corrections can be made. By conducting surveys on a recurring cycle, new construction or system modifications can be checked for conformance with previous DNR approvals, and construction deterioration of facilities can also be evaluated, particularly if deterioration is more rapid than expected.

In Wisconsin, sanitary surveys are routinely performed at all public water systems. Currently, surveys follow a 5-year cycle. Sanitary surveys are in-depth investigations of systems to evaluate the adequacy of the water source, facilities, equipment, and operation and maintenance of the water systems. The objective of the survey is to identify any item that may adversely affect the availability or quality of water in a public water system.

DNR regional staff conducts a majority of the sanitary surveys. However, in 13 counties, the sanitary surveys for transient noncommunity systems are conducted by county health department sanitarians. Since 1994, the DNR has been overseeing contracts with 13 counties for sanitary surveys and coliform bacteria and nitrate monitoring at approximately 2,100 transient noncommunity systems each year. The samples are collected by licensed sanitarians.

At the completion of the survey, the findings are shared with the system owner/operator. A summary report is also prepared following the survey. The report includes general information about the system, a description of the facilities, as well as conclusions and recommendations. If problems or deficiencies are detected during a sanitary survey, the findings are typically shared with the operator following the survey and included in the summary report. Compliance and response dates are also set and included in the written report. Once the deficiencies are corrected,

a re-inspection is scheduled. Upon verification that the corrections were made, a compliance letter is sent to the owner/operator.

If the problem is not corrected for a valid reason, an extension may be granted. Depending upon the nature and duration of the deficiency, one of the standard stepped enforcement procedures may be used to ensure compliance, including a Notice of Noncompliance, Notice of Violation, Consent Order or an Administrative Order.

In addition to the stepped enforcement process, Wisconsin State Statute 281.99 (refer to Appendix D) gives DNR the authority to assess administrative forfeitures or fines for safe drinking program violations, including capacity development. Prior to assessing a forfeiture for a violation, the DNR must first provide written notice of the alleged violation to the system owner or operator. If the violation is not corrected following the notice, the DNR may directly assess a forfeiture by issuing an order to the system owner or operator. The amount of forfeiture may not be more than \$25,000 per violation in one order. All forfeitures must be paid within 60 days after receipt of the order. Water system owners and operators may contest the issuance of the order and the assessment of the forfeiture.

Annual Inspections – Municipal Systems

Annual inspections include on-site inspections of system facilities and a review of sampling and reporting records for the purpose of evaluating the adequacy of the water source(s), facilities, equipment, operation and maintenance of municipal systems. The objective is to protect the health and safety of the water supply users and to protect the drinking water resources.

An annual inspection is performed by DNR staff at all municipal systems that are not scheduled to receive a comprehensive sanitary survey for that year. Under the current format, priority is given to (1) systems having MCL violations, (2) systems with known deficiencies or operational problems, (3) larger population served, and (4) time since last sanitary survey.

Future Enhancements: The DNR will modify its facility contact, inspection, and evaluation processes to incorporate and integrate technical, managerial, and financial capacity development elements into existing program activities. The goal is to create a standardized capacity evaluation format for each type of public water system. The DNR may use a combination of document review and visual inspection to evaluate technical, managerial, and financial capacity. The new format will be structured to facilitate entry of the capacity development data electronically into the DNR Drinking Water System database. The information will then be used to prioritize which public water systems have capacity deficiencies and may be in need of further assistance.

Additional enhancements may be made to the inspection and evaluation processes to ensure that Wisconsin addresses the requirements of the proposed Groundwater Rule. The EPA proposes the following requirements in the draft rule:

1. States, or authorized agents, conduct sanitary surveys for all groundwater systems at least once every three years for community water systems and at least once every five years for noncommunity water systems;

2. Sanitary surveys address all eight elements set out in the “EPA/State Joint Guidance on Sanitary Surveys” (discussed in the next paragraph);
3. States provide systems with written notification which describes and identifies all significant deficiencies no later than 30 days of the on-site survey;
4. Systems consult with the state and take corrective action for any significant deficiencies no later than 90 days of receiving written notification of such deficiencies, or submit a schedule and plan to the state for correcting these deficiencies within the same 90-day period; and
5. States must confirm that the deficiencies have been addressed within 30 days after the scheduled correction of the deficiencies.

The EPA and the Association of State Drinking Water Administrators (ASDWA) have developed a list of eight minimum elements to be reviewed in conducting a sanitary survey. These elements, as identified in the “EPA/State Joint Guidance on Sanitary Surveys” include:

Source (including source protection, physical components of the source, and condition of the source)

- Treatment
- Distribution system
- Finished water storage
- Pumps/pump facilities and controls
- Monitoring/reporting/data verification
- Water system management/operations
- Operator compliance with state requirements

4.5 Criteria Used to Evaluate Capacity

In the revised capacity evaluation process, the DNR will use a variety of criteria to evaluate the technical, managerial, and financial capacity of public water systems. The following types of information may be reviewed and/or collected during the evaluation:

- | | |
|---|---------------------------|
| -General facility information | -Source water |
| -Owner name & address | -Well(s) |
| -Operator name & address | -Discharge piping |
| -Managerial programs | -Well pump(s) |
| -Operating information | -Pump station |
| -Distribution system (publicly owned utilities) | -Storage |
| -Treatment | -Water quality & sampling |
| -Contracted professionals | -Accounting practices |
| -Public relations/citizen participation | -Recordkeeping practices |
| -Long-range planning & budgeting practices | |
| -Financial status (monitoring, operation & maintenance costs) | |

Interim capacity evaluation: Until the existing inspection and evaluation processes are modified, DNR’s Capacity Development Coordinator, in conjunction with the SDWA program staff, will use existing data sources to evaluate public water systems statewide during the first year of

implementation. The following system information will be reviewed to conduct the initial capacity evaluation:

- Water quality & sampling compliance data – number and type of violations (if any) – applicable to all public water systems
- CCR compliance data – applicable to municipal and OTM systems
- PSC’s list of potential financially troubled systems – applicable to municipal systems
- Systems requesting capacity development assistance – applicable to all public water systems
- Systems referred to the Capacity Development Coordinator by DNR regional staff – applicable to all public water systems
- Systems dealing with emergency situations – applicable to all public water systems

4.6 Prioritizing Systems with Technical, Managerial, and Financial Capacity Deficiencies

DNR’s Capacity Development Coordinator, in conjunction with SDWA program staff, will prioritize systems with capacity deficiencies on an annual basis. The prioritization process will likely occur in the fall of each year to coincide with other DNR drinking water activities, including: the Bureau of Drinking Water and Groundwater workplanning, the monitoring schedule mailing, as well as the annual start of the Safe Drinking Water Loan process. The prioritization will focus on systems out of SDWA and/or administrative code compliance or systems on the verge of being out of compliance.

Interim system prioritization: Initially, the system prioritization will use existing data sources, including a review of:

- Water quality & sampling compliance – number and type of violations, if any (all systems)
- CCR compliance (municipal & OTM only)
- PSC’s list of potential financially troubled systems (municipal only)
- Systems requesting capacity development assistance (all systems)
- Systems referred to the Capacity Development Coordinator by DNR regional staff (all systems)
- Systems dealing with emergency situations (all systems)

Public water systems with problems or deficiencies in all of the applicable areas listed above will be given highest priority for receiving capacity development assistance. Systems with deficiencies in only some of the applicable areas will be given lower priority. The Capacity Development Coordinator will consult with DNR’s regional staff and PSC staff to verify the information from the priority ranking and gather additional information on systems that have capacity deficiencies. The DNR regional staff conducts the sanitary surveys and inspections and typically serves as the main point of contact with the water systems. PSC staff conducts rate reviews and examines financial capacity-related information submitted in the municipal water systems’ annual reports, which are required by the PSC.

Systems with SDWA and administrative code violations and capacity deficiencies that are unwilling to correct the violations and refuse to accept assistance from the DNR or its contractors will be subject to the state’s standard stepped enforcement process. If certain systems have capacity deficiencies, but **no** SDWA or administrative code violations, they will be contacted to determine if they want help. If they refuse it, the DNR will work with other systems on the priority list. In addition, municipal water systems with capacity deficiencies will be ineligible for Safe Drinking Water Loan funding.

Future enhancements: Once the capacity evaluation data is stored electronically in the Drinking Water System, the DNR may develop a numerical priority scoring system, which includes additional technical, managerial, and financial criteria. The following additional scoring criteria may be used in the future to categorize systems:

- What is the age of the infrastructure (all systems)?
- Does the system have an operation & maintenance plan (all systems)?
- Does the system have an emergency response plan (all systems)?
- Does the system have an annual budget (all systems)?
- Are the system operations covered by revenue (all systems)?
- Does the system following standard accounting principals (all systems)?
- How big is the population served by the system (all systems)?
- Does the system have a certified operator (municipal, OTM, & NTNC)?

Prioritizing systems will allow the DNR to focus its time and resources on those systems that are most in need of assistance. In turn, Wisconsin will be able to evaluate the priority systems’ impairments to determine which capacity building tools will most effectively assist those systems.

4.7 Factors that Encourage and/or Impair Capacity Development

A broad spectrum of factors exists at the federal, state, and local level in Wisconsin that encourage and/or impair capacity development. These factors that either help or hinder capacity development tend to be linked to regulatory, financial, institutional, or legal issues.

The following list of factors was provided by the stakeholder work group and public input session attendees.

Encouraging Capacity Development:

Regulatory:

- Regulatory authority exists to develop and implement a drinking water program: state administrative codes & statutes – DNR, PSC, DHFS, Commerce, etc.
- Regulatory authority exists to develop and implement a Capacity Development Program – state statutes
- Sanitary survey & inspection process encourages capacity development by enabling Wisconsin to periodically assess system capacity
- Source water assessments/wellhead protection plans

- Operator certification
- Local zoning/planning codes
- Emphasis on “smart growth” for municipalities
- Municipalities with private well ordinance have power of local permit control over private wells
- Involvement of local health agencies with public systems
- Involvement of state laboratory with public systems

Financial:

- PSC rate review for municipal systems enables Wisconsin to assess the financial capacity of municipal water systems
- SRF loan program
- State funding for bacteriological testing program for systems

Institutional:

- Systems are voluntarily sharing information with each other by forming coalitions or peer groups

Other:

- Technical assistance programs, providing help to small systems – contractors & non-profit organizations
- Newsletters – state agencies & stakeholder organizations
- DNR web site
- Small municipal system educational sessions

Impairing Capacity Development:

Regulatory:

- Difficulty understanding state and federal complex drinking water regulations, monitoring requirements, etc. – complexity of new rules
- DNR staff issues – workload, turnover, inconsistency between staff and regions, lack of trust
- Poor municipal and OTM system oversight by local government officials and governing boards – partly due to the officials and boards not knowing or understanding the issues and regulations
- Non-uniform enforcement of regulations
- Increasing regulation (more and more coming)
- Conflicting regulations
- Lack of money at all levels
- Lack of incentives, primarily financial, to get people to attend training/workshops
- No specific authority for PSC to require utilities to seek rate relief
- Inefficient and/or lack of information sharing between state agencies
- Local politics and election concerns
- Local annexation issues

- Inconsistent local regulations
- Difficulty passing local well abandonment ordinances
- No requirement for wellhead protection plans for existing wells

Financial:

- Financial shortfalls for upgrading/repairing facilities, monitoring costs, treatment processes
- Lack long-term planning (financial planning and planning for infrastructure replacement)
- Lack of budgeting tools/mechanisms
- Lack of proper bookkeeping or accounting
- PSC rate review which results in significant rate increase (particularly an impairment for financially depressed areas)
- SRF funding restrictions for private systems
- Operator certification costs
- Cost of present and future regulations

Institutional:

- Management conflicts between owners and operators
- Some owners/operators not having the time to attend training/workshops
- Poorly trained operators

Legal:

- Local authority not clearly defined: Who is ultimately responsible for the system – the board, the owner, or the operator?

Based on stakeholder and public feedback, the major impairments appear to be linked to:

- system owners/operators, board members, and local officials not knowing or understanding the SDWA regulations,
- systems not having the necessary financial resources or planning abilities to meet the SDWA regulations, and
- DNR consistency and workload issues with regards to implementing the requirements of the SDWA.

It is anticipated that the DNR will continue to work with the stakeholder work group and annually reevaluate the factors that encourage or impair capacity development to prioritize areas for improvement. In doing so, the Wisconsin's Capacity Development Program will focus assistance efforts in an efficient manner.

The DNR's goal is to reduce or eliminate the factors that impair systems from meeting capacity. In the initial implementation of its strategy, Wisconsin may focus in the following areas to address and reduce some of the major capacity development impairments:

- increase understanding and educate water system owners, operators, board members and local officials regarding the SDWA requirements,
- provide financial information or resources where applicable and appropriate,
- improve consistency in the DNR’s Bureau of Drinking Water and Groundwater and with other government agencies.

Some of the factors that impair systems may be reduced or eliminated by making better use of the things that encourage capacity development. As mentioned above, the DNR, as the Primacy Agency for the SDWA in Wisconsin, has the authority and resources to implement numerous programs that will encourage systems to acquire and maintain capacity, including sanitary surveys, operator certification, a loan program, and capacity development, itself. Wisconsin will try to eliminate the impairments and help systems meet capacity by using a variety of these and other capacity building tools, which are discussed in the next section.

4.8 The Capacity Development Toolbox - How Wisconsin Will Use the Authority and Resources of SDWA to Help Systems Build Capacity

Public water systems in Wisconsin face a variety of challenges in their quest to provide safe drinking water at an affordable cost. However, there are many SDWA programs and activities that can be used to address the impairments encountered by existing public water systems. These “tools” help systems acquire and/or enhance their technical, managerial, and financial capacity.

In Wisconsin, a number of capacity building activities and programs already exist, and as part of this strategy, these tools will continue to be used to help public water systems comply with the NPDWR. Some capacity development tools will be targeted towards specific systems based on the prioritization and capacity evaluation results. For instance, a system that has financial capacity deficiencies may be offered additional, specific guidance on budgeting and long-term planning. Other tools will be used to broadly address systems statewide, regardless of their capacity development status. One example is the annual mailing of monitoring letters and schedules to help public water systems plan and budget for upcoming monitoring.

Wisconsin’s existing capacity development tools include:

- **DNR Plan Review:** Wisconsin Administrative Code Chapter NR108 states that final plans and specifications must be reviewed and approved by the DNR prior to construction for all municipal and OTM systems and for nontransient noncommunity systems with a pumping capacity greater than 70 gallons per minute. This applies to new water systems as well as improvements, extensions, and alterations to existing systems. DNR plan review provides the initial safeguard measure to strengthen a water system’s ability to meet capacity and consistently supply safe drinking water.
- **Sanitary surveys (all public systems) and annual inspections (municipal):** Sanitary surveys and inspections provide a comprehensive and accurate record of the components of water systems, assess the operating conditions and adequacy of the water system, and determine if past recommendations have been implemented effectively. DNR drinking water staff and county inspectors personally assist the owners and operators with issues related to

their public water systems during sanitary surveys and inspections. DNR staff will continue to use the sanitary survey and municipal inspections to evaluate systems, point out deficiencies, and make recommendations to help public water systems meet capacity.

- **DNR/County Contracts for Transient Noncommunity Systems:** Since 1994, the DNR has been overseeing contracts with 13 counties for sanitary surveys and coliform bacteria and nitrate monitoring at approximately 2,100 transient noncommunity systems each year. The results of this partnership with the counties have been outstanding. The samples are taken by licensed sanitarians instead of inexperienced system owners. Monitoring and reporting violations in these counties are almost nonexistent. MCL violations are greatly reduced mostly due to the elimination of false positives from poor sampling. State intervention on the system owner is lessened. Many of these transient facilities are licensed by the Wisconsin Department of Health and Family Services (DHFS) and the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and also have DNR water testing requirements. The majority of counties that are part of the contract are also agents for DHFS and DATCP so the system owner sees only one county inspector instead of three different state inspectors.
- **One-on-one technical assistance from state and local government staff:** Staff from the DNR, PSC, DHFS, DATCP, and Commerce, as well as county and municipal officials, offer assistance to systems on a day-to-day basis to ensure that owners/operators understand the regulations. The DNR's regional drinking water staff provides technical assistance to owners and operators and conducts sanitary surveys of public water systems to ensure compliance with the primary drinking water regulations. State and local government staff will continue to develop positive dialogues with owners and operators to help them understand the SDWA requirements and build capacity.
- **Technical Assistance Contractors (OTM & NTNC):** In April 2000, DNR awarded a contract to Wisconsin Rural Water Association (WRWA) to provide technical assistance to OTM and NTNC water system operators. One-on-one assistance is being provided by WRWA on a statewide basis over a two-year time frame. The contract entails creating an assessment checklist to ensure acknowledgment of issues covered, a course script for instructors to use when providing training, and a database to document all attempted contacts with system operators.

WRWA will contact each OTM and NTNC system owner/operator, set up a meeting, and spend 1-2 hours discussing the items outlined on the checklist. The checklist includes a review and discussion of the following:

- ⇒ The DNR Owner Responsibility Manual
- ⇒ Monitoring requirements and follow-up on water samples deemed unsafe
- ⇒ The elements of preparing a Consumer Confidence Report
- ⇒ A critique of the owner's most recent Consumer Confidence Report
- ⇒ Operation and maintenance applicable to each system
- ⇒ Operator Certification
- ⇒ Capacity Development

- ⇒ Other new regulations not discussed above
- ⇒ Comments from the reviewer, including recommendations for further technical assistance

Following the meeting, the WRWA must submit the completed checklist, signed by the reviewer and the system owner/operator, to the DNR. All OTM systems will be contacted annually during the 2-year period of the contract. All NTNC systems will be contacted once over the 2-year period.

- **Small Municipal System Educational Sessions:** In early 2000, the DNR contracted with the University of Wisconsin (UW) to plan, organize, advertise, and conduct educational and informational sessions covering drinking water topics. The UW will conduct up to 12 sessions across the state with at least one session held in each of the five DNR regions. The purpose of the sessions is to educate the operators/managers of public drinking water systems that serve populations of 10,000 persons or less and that are categorized as in the Municipal, OTM, and NTNC systems. The UW will also evaluate the effectiveness of the sessions. Specifically, the UW will organize and, where necessary, develop presentation materials covering the following topics:

- ⇒ Groundwater Rule
- ⇒ Disinfection Byproducts Rule
- ⇒ Enhanced Surface Water Treatment Rule
- ⇒ Public Notification Rule
- ⇒ Consumer Confidence Reports
- ⇒ Capacity Development
- ⇒ Operator Certification
- ⇒ Safe Drinking Water Revolving Loan Program
- ⇒ Miscellaneous Safe Drinking Water Topics

The UW will provide a substantial portion of the instruction for each session and closely supervise other expert speakers. It is expected that up to two or three outside instructors may participate in each session to provide specific expertise. The length of the training will run approximately 3-6 hours.

- **Operator Certification (municipal, OTM, NTNC):** A program to certify operators for municipal systems currently exists in Wisconsin. A program is being developed to cover the certification of operators for OTM and NTNC systems as required in the 1996 amendments to the SDWA. Wisconsin Administrative Code Subchapter NR 114.30 (refer to Appendix D) states that all community and nontransient noncommunity systems must have a designated “operator-in-charge.” To be an operator-in-charge that person must be certified by the state of Wisconsin. People will need to submit an application and successfully pass an examination to qualify for certification. Each certified water system operator will also need to renew his or her certificate every 3 years.
- **Safe Drinking Water Loan Program (municipal):** As discussed earlier, Wisconsin is using part of its DWSRF allotment to provide low-interest loans to eligible municipal water systems for infrastructure improvements through the Safe Drinking Water Loan Program.

The loan program allows a system lacking adequate capacity to receive DWSRF assistance if the project will ensure that the system returns to and maintains compliance with the SDWA requirements. The low-interest loans may be used to plan, design, construct or modify municipal water systems.

- **“Water/Wastewater Funding Sources” guide:** DNR’s Bureau of Community Financial Assistance (CFA) administers environmental grant and loan programs. Financial program staff work closely with local governments and interested groups to develop and support projects that protect public health and the environment, including drinking water related issues. CFA produces a “Water/Wastewater Funding Sources” guide in hard copy and electronic (available on DNR web site) format. The guide includes descriptions of programs that provide funding for various types of water and wastewater projects for municipal governments, individuals, and non-profit organizations. The capacity development program will use the guide as an informational tool to help systems that lack financial capacity.
- **Monitoring letters and schedules (all public systems):** To promote timely contaminant monitoring and reporting, the DNR sends monitoring letters and schedules to water systems to remind the operators of upcoming deadlines. A preliminary schedule is sent to system owners in October to help systems budget for the following year’s monitoring requirements. The final monitoring packet, which includes a letter, monitoring schedule, report forms, and list of certified laboratories, is typically sent to the system operator in February.

Future Enhancements: The monitoring schedule mailing offers an opportunity to remind public water system owners/operators of the capacity development requirements. The mailing may be used to provide updates on issues and events pertaining to capacity development, including the availability of technical, managerial, and financial resources.

- **Vulnerability assessments (all public systems):** The Vulnerability Assessment Program was developed in 1992 to eliminate unnecessary costly monitoring. The state does vulnerability assessments at all community and nontransient noncommunity systems on a 3-year schedule (i.e. municipal systems in 1998, other-than-municipal systems in 1999, and nontransient noncommunity systems in 2000, municipals in 2001...). Vulnerability assessments for transient noncommunity systems were completed between 1998 and 2000. The assessments consist of an inventory of potential sources of contamination within a delineated area and an evaluation of well construction.
- **Wellhead protection plans (municipal):** Wellhead protection is a preventive program designed to protect public water supply wells. The goal of the program is to prevent contaminants from entering public water supply wells by managing the land that contributes water to the wells. The program contains both regulatory and voluntary components. All new municipal wells installed after May 1, 1992 must have an approved Wellhead Protection Plan before that well can be placed in service. Wisconsin Administrative Code Section NR 811.16(5) contains the required elements of a Wellhead Protection Plan for new wells. The voluntary portion of the wellhead protection program applies to all municipal wells installed prior to May 1, 1992. The DNR promotes and encourages development and implementation of a Wellhead Protection Plan for communities with older wells as a proactive step to protect

these wells from contamination. However, there is no requirement that a plan be prepared for older wells or that a plan be submitted to the DNR for review or approval. The DNR and other agencies have and will continue to promote voluntary protection efforts by communities, using publications, videos, web sites, and one-on-one work with communities.

The WRWA's Groundwater Protection Program also assists small water systems and rural communities in designing and implementing individual wellhead protection plans at the local level. The program is currently working with 140 communities in Wisconsin.

- **Source water assessments (all public systems):** Wisconsin's Source Water Assessment Program is required to delineate areas that may contribute pollution to sources of drinking water and assess potential pollution threats to these areas. Source water assessments will be conducted at all public water systems (both groundwater and surface water) in Wisconsin by May 2003. The assessments will provide basic information regarding where a system's drinking water comes from and the degree to which it may be adversely affected by potential sources of contamination. Assessment results can be used to educate citizens about protecting sources of public drinking water and should facilitate the development and implementation of effective strategies for managing potential contamination sources.
- **Consumer Confidence Report guidance:** As part of the 1996 amendments to the SDWA, community water systems must develop and distribute a Consumer Confidence Report (CCR) annually. The purpose of the CCR is to provide water quality information to consumers. The systems must also report their CCR activities to the DNR and other agencies.

Each year, DNR sends a packet of reporting information to all community system owners/operators. The packet contains guidance to assist owners/operators in preparing and distributing their CCRs to the public, including:

- ⇒ A cover letter with directions for sending the CCR to DNR and other agencies
- ⇒ A DNR region map with office contacts and addresses
- ⇒ Directions for using the CCR mailing waiver
- ⇒ Instructions for internet access with helpful information to complete CCRs, including MCLs and system-specific detects of contaminants monitored and reported to the DNR
- ⇒ Helpful references for CCRs
- ⇒ A CCR certification form to certify to DNR that the system performed the required actions

As referenced in the packet, DNR and the Wisconsin Rural Water Association (WRWA) provide additional CCR information on their web sites. The WRWA offers a free CCR template on its web site. The DNR web site provides links to summary tables of SDWA sample results for each facility, CCR-related software, EPA on-line forms and catalogs, and CCR guidance and fact sheets.

- **DNR enforcement actions (all public systems):** When a public water system fails to perform some task, a violation is entered into the Drinking Water System database. In response to these violations, DNR staff sends Notice of Noncompliance and Notice of

Violation letters. The state's stepped enforcement process gives DNR the ability to deal with systems that are unwilling or unable to comply.

A monitoring enforcement example:

Notice of Noncompliance - If a system does not monitor for a specific contaminant and/or fails to submit the results to the DNR, a notice of noncompliance (NON) is sent to the system. This requires the system to submit results within 90 days and to notify their consumers of the failure to monitor.

Notice of Violation - If a system has multiple monitoring violations and/or fails to submit results within 90 days after receiving a notice of noncompliance, a notice of violation (NOV) is sent to the system owner. In addition to requiring the sample to be submitted and a public notice, the NOV requires the system owner to respond in writing as to why the violation has occurred, how public health has been protected and how future violations will be prevented. Based upon the adequacy of the response, the system owner may be requested to attend an enforcement conference, or the case may be referred to the Department of Justice for prosecution. If an enforcement conference takes place, several things may occur: a compliance agreement may be created, an administrative order may also be issued, or an administrative order with penalties may be issued.

Enforcement will continue to be used as a tool to get systems to comply with the SDWA requirements and meet capacity.

- **Stakeholder organization activities:** In addition to the drinking water programs that DNR coordinates, the state relies on the work that stakeholder organizations do to help systems struggling to meet the SDWA requirements. Numerous organizations across the state work with community leaders, contractors, system owners and operators and local residents to ensure that drinking water systems are developed, managed and operated in compliance with the SDWA requirements.

Groups, such as the Wisconsin Community Assistance Program (WISCAP), the Wisconsin Water Well Association (WWWA), the American Water Works Association (AWWA), the Wisconsin Rural Water Association (WRWA), to name a few, provide technical assistance and training, oftentimes focused towards small systems (with populations fewer than 10,000). Many of their technical assistance activities help systems:

- ⇒ establish and maintain responsible financial and management systems
- ⇒ consolidate or restructure current water supply services
- ⇒ determine rate structures
- ⇒ properly operate and maintain existing water systems
- ⇒ diagnose compliance-related problems and identify solutions
- ⇒ access available financial resources
- ⇒ understand the requirements of the SDWA standards and their responsibilities
- ⇒ identify low-cost technology alternatives
- ⇒ delineate wellhead protection areas

- ⇒ designate land use controls to minimize the risks of resource degradation from future development
- ⇒ educate water utility boards and local government officials
- ⇒ train well drillers and pump installers

This is far from an all-inclusive list, but it highlights some of the major areas that these organizations target to assist systems. The stakeholder organizations will continue to play a crucial role in helping public water systems acquire and maintain technical, managerial, and financial capacity.

- **Newsletters:** As mentioned earlier, DNR regularly publishes and distributes newsletters to water supply operators, consultants, engineers, local government officials and other interested individuals. The DNR will continue to provide Capacity Development updates in the agency's *Wellhead Protection News* and *Water Words* newsletters. The DNR may also post articles in the newsletters of other stakeholders.
- **Guidance documents:** The DNR prepares and provides a variety of guidance documents to system owners/operators, including Capacity Development fact sheets. DNR currently has operator handbooks focused specifically on the needs of OTM, NTNC, and TNC systems. DNR also provides brochures targeting certain contaminants such as arsenic, lead, copper, and nitrate, to name a few. The department will continue to prepare updated guidance to help system owners/operators and the general public better understand drinking water regulations and issues.
- **DNR Drinking Water and Groundwater Web Site:** Because a growing number of owners/operators and stakeholders have access to the Internet, DNR will maintain and update the bureau web page, including the capacity development section. Web sites are another increasingly effective tool for disseminating capacity development information, including fact sheets, availability of technical and financial resources, and the schedule of future assistance activities.
- **Public outreach:** To increase public awareness of drinking water issues and regulations, DNR drinking water staff participate in a variety of conferences, workshops, training sessions, and speaking engagements throughout the year.
- **PSC rate reviews (municipal):** The PSC sets water utility rates and determines levels for adequate and safe service. Most public utilities must obtain PSC approval before instituting new rates or undertaking major construction projects such as new water wells. PSC rate reviews are an important tool to ensure the financial capacity of municipal water systems.

In water rate cases, a utility's application to raise its rates begins when it files a detailed proposal with the PSC. This proposal contains extensive information on the utility's financial needs, a detailed Pro-Forma annual income statement, and an explanation of major revenue, expense, and investment changes. The proposal also includes the proposed rate increase and rate of return on investments requested by the utility. The PSC requires analyses of consumer consumption and the impact that the proposed rate increase would have on consumers.

Upon receiving a rate increase proposal, the PSC issues a public hearing notice. PSC staff may examine the utility's books and figures and review the utility's rate designs and the effects of the proposal on customers. At the public hearing, utility representatives, PSC staff, and members of the public present testimony and/or speak. A record of the hearing is then made, and the PSC issues the order defining the agency's decision.

- **Department of Commerce Activities:** Commerce regulates the titling and licensing of mobile home parks in Wisconsin to ensure the safe design, construction, and operation of the parks. According to Chapter Adm 65, water supply systems that serve mobile home parks must meet the well drilling and pump installation requirements detailed in Chapters NR 811 and 812 as well as the water quality standards in Chapter NR 809. Commerce also regulates and enforces the Wisconsin plumbing codes outlined in Chapters Comm 82 through 87, which affect water systems statewide. Commerce reviews plans for all mobile home park water distribution systems, water services serving public buildings with more than 10 plumbing fixtures, private water mains, and all health care water distribution systems, regardless of the number of plumbing fixtures.
- **Department of Health and Family Service Activities:** DHFS enforces administrative codes for the inspection and licensing of restaurants, hotels, and campgrounds in Wisconsin. Water supply systems that serve these establishments are required to meet the well drilling and pump installation requirements and also the water quality standards in Chapter NR 809.
- **Department of Agriculture, Trade, and Consumer Protection Activities:** DATCP's Groundwater Program identifies areas with groundwater contamination from pesticides and fertilizers, investigates contamination sources, and develops regulations to prevent groundwater contamination above health-based standards.

Future Enhancements - Additional Capacity Development Tools

Wisconsin is also pursuing some new activities to help public water systems build technical, managerial, and financial capacity:

- **Drinking Water System Coalitions:** DNR is preparing a Request for Proposal to hire a contractor to establish Coalitions of Municipal and OTM water system owners and operators throughout the state. The intent of the coalition groups is to establish forums where municipal and OTM operators may: discuss issues in an informal setting, network with other communities in the same area to share ideas and possibly equipment, receive information on the new regulations from the EPA and review their implications. DNR encourages the development of partnerships through this coalition program to help systems enhance their technical, managerial, and financial capacity.

The contractor will set up a plan for creating and conducting 10-20 coalitions of community water systems, serving populations of 10,000 or less. The coalitions will meet 1-2 hours every other month (6 times per year) for two years to discuss the drinking water topics listed below:

- ⇒ Groundwater Rule
- ⇒ Disinfection Byproducts Rule
- ⇒ Enhance Surface Water Treatment Rule
- ⇒ Public Notification Rule
- ⇒ Consumer Confidence Reports
- ⇒ Capacity Development
- ⇒ Operator Certification
- ⇒ Safe Drinking Water Revolving Loan Program
- ⇒ Operation and Maintenance Issues
- ⇒ Monitoring Requirements/Sampling
- ⇒ Miscellaneous Safe Drinking Water Act Topics

The contractor will contact the municipal and OTM owners/operators to invite them to participate in the coalitions. The contractor will plan and organize the coalition meetings, act as the facilitator during the meetings, and provide technical assistance and expertise to the groups as necessary.

- **Additional training & workshops:** DNR would like to expand its training and workshop efforts to include a wider variety of capacity development topics. The state anticipates that most of the work to design and teach the workshops will be conducted by contract vendors. DNR will determine the scope of the training and provide guidance to the contractor as necessary. Based on stakeholder feedback, training programs may be developed in the following areas:

- ⇒ Operation & maintenance (O&M) plan training for owners/operators
- ⇒ Financial planning workshops for owners/operators
- ⇒ Drinking water workshops for municipal officials & governing boards
- ⇒ On-line training programs, including financial and O&M planning for owners/operators

Additionally, continuing education credits/hours for certified water operators may be assigned to some of these new training programs. All certified water system operators must earn a certain amount of continuing education credits/hours to maintain their certification.

- **Additional guidance:** Owner, operator, and water board education is an essential part of helping public water systems acquire and maintain capacity. DNR would like to create a variety of guidance materials to help owners, operators, and boards effectively manage a public water system. Capacity development guidance could be developed by the DNR, stakeholder organizations, and/or contract vendors. Ideally, the guidance will be produced using several media formats – printed, electronic, video and/or audio recording – to better address the needs of the systems and make the information more accessible. Depending on the results of the capacity evaluations and the priority ranking, the DNR may target guidance materials in the following areas:

- ⇒ Budget work sheets & financial planning guides
- ⇒ Operation & maintenance planning for water systems

- ⇒ Water board information
- ⇒ New regulations & requirements
- ⇒ Video/audio recording of OTM/NTNC/TNC operation handbook information

- **Self-assessments:** Good management and good operations at public water systems cannot be regulated into existence – people make that happen. Every good board member, owner, and operator needs to know certain critical aspects of their water system and how they affect its operations. To this end, DNR may develop a self-assessment tool for water systems that will identify the critical areas and focus on improvements that could be made in their operations. The self-assessment may serve as an adjunct to the capacity evaluation process. It could be thought of as a form of “compliance maintenance.” In this case, self-assessment could be used as an educational, self-awareness tool to inform owners, operators, or board members of their existing capacity and potentially point out areas that need to be strengthened.
- **Interagency communication:** Stakeholders that participated in the work group identified a need for improved communication and information sharing between government agencies, particularly at the local and state levels. As a result of these comments, the DNR has begun discussions with the PSC to improve communication between the two agencies and make better use of data that is collected by each agency. The DNR and PSC are evaluating their respective data collection processes to try to avoid redundancy and more efficiently share municipal water system information. The DNR may also pursue similar meetings and discussions with other governmental agencies.
- **DNR staff training:** Stakeholders that participated in the work group and public input sessions also identified a need for more consistency in the efforts of DNR’s statewide drinking water and groundwater staff. Some stakeholders saw a lack of consistency in how DNR conducts sanitary surveys and inspections and in how the agency tackles certain problems faced by public water systems. To address the consistency issue, DNR may expand its staff training efforts in the following areas:
 - ⇒ Conduct additional DNR technology & data systems training for regional and central office staff
 - ⇒ Revise the “Operations Manual,” which is an internal drinking water program handbook for regional and central office staff. Make the manual available electronically to all staff on the DNR’s internal web site, “The Intranet,” and design it to be searchable by topic. Also, send at least one hard copy of the manual to each region office. Update the manual regularly to keep up with the changing regulations.
 - ⇒ Conduct additional staff training at the statewide meetings (biennial)

4.9 How Wisconsin Will Establish a Baseline and Measure Improvements

Wisconsin must evaluate the success of its capacity development efforts. The most meaningful way to measure the success of Wisconsin's efforts is to measure actual improvements in water system capacity. The DNR will track the activity in a number of drinking water programs to establish a baseline for measuring improvements in the capacity of Wisconsin's public water systems. The baseline information will provide the groundwork for producing and submitting a report to the Governor of Wisconsin and the EPA on the progress made toward improving the technical, managerial, and financial capacity of public water systems throughout the state.

Wisconsin will use the following methods or tools to measure its progress:

- **Consumer Confidence Reports (municipal & OTM):** DNR will review the CCR compliance rate based on number (or percent) of reports completed compared to the total number of municipal and OTM systems.
- **Wellhead Protection Plans (municipal):** DNR will monitor the number of wellhead protection plans completed compared to the total number of new municipal systems that have been constructed since May 1, 1992 (the date mandated in Wisconsin Administrative Code Chapter 811).
- **Operator certification (municipal, OTM, NTNC):** The DNR will keep track of the systems that have certified operators. DNR will monitor the number of operators that have been certified according to system type.
- **Monitoring results:** Using the Drinking Water System database, DNR will analyze compliance trends as a way to measure improvements in capacity. Several variables will be analyzed, including: number of systems in significant noncompliance, number of Maximum Contaminant Level (MCL) exceedances, number of monitoring/reporting violations, and time required to achieve compliance. The DNR anticipates that as the number of systems meeting capacity increases the number of violations will decrease. However, because capacity building is an incremental process, it may take years before improvements are measurable.
- **Public notifications:** Public water systems with MCL or monitoring/reporting violations are required to provide a public notice of the violation. Whenever a system carries out public notification, they are required to send a copy of the notice to the DNR. The capacity development program will monitor the number of public notifications that are sent out on an annual basis.
- **Sanitary survey results:** Each year, a certain percentage of Wisconsin's public water systems undergo a sanitary survey based on either a 3-year or 5-year survey cycle. Until the sanitary survey data is recorded electronically, the capacity development program will consult with DNR regional staff to determine the number of systems with serious deficiencies that have not been addressed by the owners/operators.

- **Source Water Assessments:** Wisconsin's Source Water Assessment Program is required to delineate areas that may contribute pollution to sources of drinking water and assess potential pollution threats to these areas. DNR has a stepped implementation schedule to complete the assessments for all public water supply systems by May 2003. The capacity development program will monitor, on an annual basis, the progress made in meeting that schedule.
- **PSC financial information:** Municipal systems regulated by the PSC are required to prepare and submit annual reports. PSC staff reviews the reports to identify systems that may have potential financial deficiencies. Established financial benchmarks are used in this screening process, and the PSC subsequently prepares a list of the potential financially troubled municipal systems. DNR may reference this list of systems when evaluating the financial capacity of municipal water systems. PSC's list may also be used to measure the effectiveness of the Capacity Development Program.
- **Evaluation of technical assistance contractors:** A pre-paid post card will be provided to the system operators during the one-on-one meeting with the technical assistance contractor (WRWA). The post card will include questions to evaluate the contractor's performance and also the material presented.
- **Evaluation of coalition groups:** The contractor is required to provide a written report semiannually, listing who attended, describing the information covered at each session, and recommending topics for further training to system owners/operators. It is mandatory that 10-20 coalitions be established (at least one in each DNR region) and 1-2 hour sessions be held every-other-month for 2 years. All topics listed in the contract should be covered.
- **Outreach/education/training efforts:** The DNR will assess the capacity development program based on its effectiveness in reaching public water systems. Throughout the year, DNR drinking water staff participate in a variety of workshops, training sessions, and speaking engagements, thereby providing technical assistance to system owners/operators. DNR will develop a system to monitor the number and types of outreach activities that staff will be conducting.

4.10 Implementation Plan

Assuming the strategy is approved by October 1, 2000, the state will follow this general timeline for the first year of implementation:

- Modify facility contact, inspection, and evaluation processes: The Capacity Development Coordinator will participate in a DNR work group to modify facility contact, inspection and evaluation processes to include an evaluation of system capacity. The modified inspection and evaluation processes will include technical, managerial, and financial capacity elements.
- Conduct initial capacity evaluation: Until the existing inspection and evaluation activities are modified, DNR's Capacity Development Coordinator, in conjunction with SDWA program staff, will use existing data sources listed in Section 4.5 to evaluate public water systems statewide during the first year of implementation. DNR will likely begin evaluating systems in the fall of 2000. The initial evaluation will be completed prior to the August 2001 deadline for assessing the program and reporting to the EPA and the Governor of Wisconsin.
- Collect baseline information: The DNR's Capacity Development Coordinator will begin assembling baseline measurement information, as discussed in Section 4.9, beginning in fall 2000. This information will be used to prepare the initial program assessment report for the EPA and the Governor.
- Prioritize systems with capacity deficiencies: Systems with capacity deficiencies will likely be prioritized annually in the fall of each year by DNR's Capacity Development Coordinator, in conjunction with SDWA program staff. This will coincide with DNR's workplanning, the monitoring schedule mailing, as well as the annual start of the Safe Drinking Water Loan process. As discussed in Section 4.6, the DNR will initially use existing data sources to prioritize which systems will receive additional capacity development assistance. Once the capacity evaluation data is stored electronically, the DNR may develop a numerical scoring system to prioritize systems with capacity deficiencies.
- Use the Capacity Development Toolbox: Starting in early winter 2000 and in subsequent years, the DNR may begin using the "Capacity Development Toolbox" (Section 4.8), as appropriate, to first help the higher priority systems begin building their technical, managerial, and/or financial capacity. Lower priority systems will be assisted as staff time and resources allow. The goal will be to first target technical assistance and guidance activities to specifically address the needs of the prioritized systems.
- Develop new tools: Following the initial capacity evaluation, the DNR will begin developing new capacity development tools, as mentioned in Section 4.8. In the future, this process will be ongoing as the Capacity Development Program tries to provide a variety of capacity building resources to public water systems.

- Continue stakeholder involvement: The capacity development stakeholder work group will reconvene on a quarterly basis during the first year of implementation to evaluate the program's progress. In subsequent years, the work group may meet less frequently, perhaps semiannually or annually.
- Submit a program assessment report: By August 6, 2001, DNR's Capacity Development Coordinator will prepare and submit an assessment report to the EPA Administrator. The report will evaluate the effectiveness of Wisconsin's Capacity Development Program, including the success of capacity development efforts to assist public water systems with a history of significant noncompliance. By August 6, 2002, the DNR will submit a report to the Governor of Wisconsin on the efficiency of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the state. Future reports to the Governor will be prepared and submitted every three years. The assessment reports will be made available to the public, as required by the EPA.

Wisconsin's capacity development strategy provides the DNR with an opportunity to work with public water systems to keep them strong into the future and the public well protected. Capacity development is an ongoing process, not a static endpoint, and so, too, will be the implementation of the strategy. The DNR will continue to enhance and modify its strategy over time as the problems and needs of public water systems change.