

**State of North Dakota**  
**Capacity Development Program Report**  
to

Governor John Hoeven

Division of Municipal Facilities  
Environmental Health Section  
North Dakota Department of Health  
September 15, 2008

**Introduction**

The North Dakota Department of Health (department) is required to report the efficacy and progress of the North Dakota Capacity Development Program to the governor in order to avoid withholding of 20 percent funding from the federal fiscal year 2009 (FY09) Drinking Water State Revolving Loan Fund (DWSRF). This third-round triennial report is mandated under section 1420 (c) of the Safe Drinking Water Act (SDWA), and must be submitted no later than September 30, 2008.

**New System Strategy**

All new North Dakota community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) are required to demonstrate technical, managerial, and financial capability (capacity) prior to commencing operation. CWSs are public water systems (PWSs) that serve year-round residents such as municipalities, rural water systems, subdivisions, and mobile home parks. NTNCWSs are PWSs that serve the same people for a minimum of six months per year (e.g., rural schools, power plants, and industrial parks). New system guidelines are outlined in the *New Water System Capacity Assessment Manual* and the *New System Capacity Assurance Plan*. North Dakota's new system strategy was approved by the U.S. Environmental Protection Agency (EPA) in September 1999. The department was granted the authority to ensure new system capacity under North Dakota Century Code (NDCC) Chapter 61-28.1, Safe Drinking Water Act, by the 55<sup>th</sup> Legislative Assembly in 1997. The department provided to EPA the North Dakota's Attorney General's written opinion certifying the department's authority to ensure all new CWSs/NTNCWSs commencing operation after October 1, 1999, demonstrate capacity with respect to SDWA regulations or regulations likely to be in effect on the date operation commences.

Pursuant to NDCC 61-28.1, the department adopted North Dakota Administrative Code (NDAC) Article 33-17, Public Water Supply Systems. These existing regulations, originally adopted in 1977 and last amended in 2005, provide a means to implement a capacity assurance program. Based on such authority, proposed new PWSs must provide a number of assurances as part of the plans and specification approval process.

The department requires that (1) plans and specifications be submitted for review and approval prior to construction and (2) operation not commence until a letter of approval is issued. These primary control points allow the department to ensure the capacity of new systems prior to their development. To obtain a letter of approval, the PWS must provide:

- A new water system application
- An operation plan that includes a technical, managerial, and financial plan
- Plans and specifications
- A construction schedule
- Sample results for each water source
- A notice of completion
- An operation and maintenance manual (if deemed necessary by the department)

The Division of Municipal Facilities (DMF) tracks new water systems through individuals contacting the DMF, local/district health units, existing PWSs, financial assistance contracts, engineering firms, and other state agencies. The department has determined that the present method of identifying and contacting proposed systems works well and will continue using it.

The number of new CWSs/NTNCWSs being added to the North Dakota PWS inventory remains small with only a few additions over the last 10 years. New developments (subdivisions, trailer courts, industries, etc.) generally occur adjacent to or within the service areas of existing PWSs and are typically consolidated with or provided bulk water service by the existing PWS. The department does not expect these trends to change. Eleven requests for new water system capacity information have been received since 2005.

### **Existing Systems Program**

The *North Dakota Existing Water System Capacity Strategy* details the steps taken to implement and maintain a capacity program aimed at helping all North Dakota PWSs acquire and maintain capacity. The North Dakota strategy was approved by EPA and implemented prior to August 1, 2000. The SDWA required states to consider each of five programmatic elements in its capacity development. The department included all five elements in its existing water system capacity document and believes that together they constitute an effective strategy.

- Element A: Methods or criteria used to prioritize systems in need of technical, managerial, and financial assistance.
- Element B: The factors encouraging or impairing capacity development.
- Element C: Description of how states will use the authority and resources of the SDWA.
- Element D: Establish a baseline and measure improvements.
- Element E: Identify stakeholders.

Factors encouraging and impairing capacity remain the same. Enhancements include federal funding, DMF administration, state primacy, and stakeholder involvement.

Impairments continue to be small systems, declining rural populations, eroding infrastructure, limited funding, lack of technical ability, owner/operator turnover, reluctance of system owners/managers to make improvements or changes, and complex SDWA requirements.

The DMF uses pertinent existing programs as a baseline to identify PWSs that lack capacity and are in danger of becoming a compliance problem. The point system developed for the existing capacity strategy utilizes SDWA compliance data, operator certification deficiencies, inspection reports, DWSRF financial audits, and laboratory past-due accounts to evaluate capacity. PWSs accumulating 10 points or more and having the greatest impact on public health are prioritized beginning with the highest number. PWSs with a history of significant noncompliance (SNC) automatically receive 10 points, making them candidates for immediate assistance.

Forty-one CWSs, nine NTNCWSs, and 65 transient non-community water systems (TNCWSs) have received assistance since inception of the capacity assistance program. TNCWSs are non-community water systems serving 25 people or more at least 60 days per year (e.g., restaurants, campgrounds, motels, golf courses, and highway rest stops). Eleven of these systems received assistance in FY08, with seven already returning to compliance. Three of the systems are scheduled to return to compliance in October 2008 and the other in January 2009, if no further violations occur. As of June 30, 2008, 106 (92 percent) of the previously assisted systems are in compliance. Two of the 41 CWSs and eight of the 65 TNCWSs needed additional assistance because of repeat violations.

North Dakota's predominant compliance problems continue to be monitoring violations under the Total Coliform Rule (TCR) and TCR maximum contaminant level (MCL) exceedances. Fifty-one PWSs had failure to monitor violations, and 17 exceeded the TCR MCL; however, no systems received both violations. Currently, there are 51 systems without properly certified operators in either water treatment and/or water distribution. Other SDWA rule violations (e.g., Lead and Copper, Arsenic, Disinfection/Disinfection By-Products, and Fluoride Rules) that may also affect capacity are addressed through the DMF's Drinking Water, Operator Certification, Facility Inspections, and DWSRF Programs.

DWSRF set-aside funds for technical assistance to PWSs serving 10,000 or fewer people (2 percent) were used to contract with the Midwest Assistance Program (MAP). MAP, an affiliate of the national Rural Community Assistance Program, provides the department completed self-evaluation questionnaires, capacity attribute evaluations, financial assessments, and action plans for those systems targeted for capacity assistance. The MAP contract was renewed for FY08 and runs from February 1, 2008 through December 31, 2008.

## **Future Follow-Up**

The department will continue to measure capacity improvements by using the *Quarterly Violations and SNC Summary*, the operator certification compliance report, PWS inspection reports, and by monitoring new system activity. The department encourages a collaborative effort with stakeholders to promote safe drinking water, public health, and quality of life.

Stakeholder involvement continues to be a key element in program success. DMF staff and the North Dakota Water and Pollution Control Conference (NDWPCC) offer annual operator training sessions to help PWSs achieve and maintain capacity. The NDWPCC also jointly sponsors an annual conference with the North Dakota Water Environment Association (NDWEA), the North Dakota Section of the American Water Works Association (NDAWWA), and the North Dakota Chapter of the American Public Works Association (NDCAPWA). The North Dakota Rural Water Systems Association (NDRWSA) and the North Dakota Environmental Health Association (NDEHA) also provide annual training sessions, conferences, and expositions.

The department continues to contract with the North Dakota State Plumbing Board, local/district health units, and technical assistance providers such as MAP and NDRWSA. These contracts provide support to the public water supply, facility inspections, wellhead protection, capacity development, and operator certification programs. The department anticipates follow-up contracts for these assistance programs to ensure the safety of North Dakota's drinking water.

To further promote stakeholder involvement, a copy of this report and the FY08 Capacity Development Program Report will be published in the *Official Bulletin*, the official publication of the NDWPCC. A news release notifying the public of the availability of the FY08 Governor's Report will also be provided to the local and regional news agencies. The Governor's Report, along with the *New Water System Capacity Assessment Manual* and the *North Dakota Existing Water System Capacity Strategy*, are available on the department web site at: <http://www.ndhealth.gov/MF/>.

## **Summary**

The department has demonstrated that both the new and existing water system capacity strategies are fully functional and continue to meet program goals. All reporting requirements have been met for fiscal years 2006-2008. Control points have triggered 11 new inquiries that initiated the approval process. Contracts for technical assistance have been renewed, and a proposal for follow-up assistance in FY09 is anticipated.

The vast majority of North Dakota PWSs provide customers safe drinking water and quality service -- resulting in a strategy aimed at assisting PWSs deemed to lack capacity rather than evaluating capacity for all systems. The department's priority points system has identified 115 of 519 PWSs requiring assistance since implementing the capacity program. Currently, 92 percent of those systems are in compliance. The DMF's practice

of contacting and assisting systems prior to them becoming a compliance problem has been successful. The majority of PWSs targeted are TNCWSs where drinking water is a minor part of their overall operation. These systems are reluctant to provide financial information, are unaware of the importance of monitoring, misunderstand the complexity of SDWA requirements, and have limited funding for system improvements. The department believes these will continue to be ongoing problems that cannot be fully addressed.

The department will continue to monitor existing systems, while providing consultation, training, and financial recommendations. Implementation of new SDWA regulations that affect capacity will be evaluated as needed. Any modifications resulting from these regulations will be detailed in future reports.