

United States  
Environmental Protection  
Agency

EPA 816-R-01-018  
July 2001



---

Office of Water(4606)

---

# **State Programs to Ensure Demonstration of Technical, Managerial, and Financial Capacity of New Water Systems**

**A Comprehensive Summary of State  
Responses to Section 1420(a) of the Safe  
Drinking Water Act**

## Contents

Executive Summary .....	iii
Alabama .....	1
Alaska .....	3
Arizona .....	6
Arkansas .....	8
California .....	10
Colorado .....	13
Connecticut .....	16
Delaware .....	19
Florida .....	21
Georgia .....	23
Hawaii .....	25
Idaho .....	28
Illinois .....	31
Indiana .....	33
Iowa .....	36
Kansas .....	38
Kentucky .....	40
Louisiana .....	43
Maine .....	45
Maryland .....	47
Massachusetts .....	49
Michigan .....	51
Minnesota .....	54
Mississippi .....	57
Missouri .....	59
Montana .....	62
Nebraska .....	65
Nevada .....	67
New Hampshire .....	69
New Jersey .....	71
New Mexico .....	73
New York .....	75
North Carolina .....	78
North Dakota .....	80
Ohio .....	82
Oklahoma .....	85
Oregon .....	88
Pennsylvania .....	90
Puerto Rico .....	93
Rhode Island .....	95

South Carolina .....	97
South Dakota .....	99
Tennessee .....	101
Texas .....	103
Utah .....	106
Vermont .....	108
Virginia .....	110
Washington .....	112
West Virginia .....	115
Wisconsin .....	117
Wyoming .....	119
Appendix A .....	121
Table 1. Summary of Control Points and Factors Used to Assess Technical, Managerial, and Financial Capacity .....	122
Table 2. Technical, Managerial, and Financial Capacity Assessment Comparison .....	129

## Executive Summary

By October 1, 1999, EPA Headquarters and the EPA Regions had approved programs for ensuring technical, managerial, and financial (TMF) capacity in new community water systems (CWSs) and new nontransient, noncommunity water systems (NTNCWSs) for the 50 States and Puerto Rico. The States, and Puerto Rico, developed these programs in response to Section 1420(a) of the 1996 Amendments to the Safe Drinking Water Act (SDWA) which requires the EPA Administrator to withhold a portion of a State's Drinking Water State Revolving Fund (DWSRF) monies if that State does not have,

“the legal authority or other means to ensure that all new CWSs and new NTNCWSs commencing operation after October 1, 1999, demonstrate TMF capacity with respect to each national primary drinking water regulation in effect, or likely to be in effect, on the date of commencement of operation.”

This document summarizes each State's response to this provision of the SDWA. It is a reference tool for making comparisons among State programs for ensuring capacity in new systems, and includes:

- C The statutory and regulatory authorities used to ensure that all new CWSs and NTNCWSs demonstrate adequate TMF capacity,
- C The identification of the State agency primarily responsible for developing and administering the program,
- C A description of the State's control points,
- C A list of the documentation required to demonstrate adequate TMF capacity, and
- C A description of how the State plans to implement and measure the success of the program.

The tables that appear in Appendix A at the end of this document serve as a quick reference, and allow for easy comparison among the programs.

Table 1 provides a summary of each State's control points and the documentation used to assess TMF capacity.<sup>1</sup> For example: in Arkansas, during the permit to construct approval process, the State will assess the technical capacity of a system by reviewing preliminary plans, source water and infrastructure information, a facilities inspection report, and plans and specifications.

---

<sup>1</sup> **Special note:** In some cases a State may require the submission of managerial and financial information as part of another document such as an Engineering Report. Because the specific items required for these documents are not listed in the table it may appear that some States do not require the submission of detailed managerial and financial information. Please reference the individual state summary for a complete list of the documentation required for a demonstration of capacity.

Table 2 cites the statutory and regulatory authority for each State and shows when a new CWS or new NTNCWS is required to demonstrate TMF capacity. For example, a new CWS in Alabama is required to submit TMF documentation both prior to being granted approval to construct and prior to being granted approval to operate. In contrast, Idaho only requires a new system to submit TMF documentation prior to receiving an approval to construct.

# Alabama

## I. Basis of Authority

### A) Statutory Authority

The Code of Alabama Act 1977, No. 805, p. 1389, §17, requires all persons to obtain a permit before constructing facilities for new public water system (PWS):

“No person shall construct or make major modification of any public water system, or portion thereof, without having first obtained a permit from the board<sup>2</sup> as provided in this article.”

<http://www.legislature.state.al.us/codeofalabama/1975/coatoc.htm>

### B) Implementing Authority

The Alabama Administrative Code §335-7-4-.06 requires proposed systems to demonstrate TMF capabilities before receiving a permit:

“Existing and proposed systems must demonstrate financial, managerial, and technical capabilities to reliably meet performance requirements on a long term basis and be self sustaining.”

<http://www.adem.state.al.us/rdiv7c4.doc>

### C) Responsible Agencies

Alabama Department of Environmental Management (ADEM), Water Supply Branch.

## II. Control Points

### A) Water Supply Permit

All PWSs must secure a current Water Supply Permit authorizing the furnishing of water for potable use prior to beginning operation. Applicants for a permit must demonstrate a need (problem or shortage) for the construction of a new system or an addition to an existing system. The permit application materials must include an explanation of the need, a description of all the available options to meet the need, and the reasoning behind the option that was selected. The reasoning must address the financial and managerial aspects of the proposed solution.

ADEM evaluates the TMF capacity of a proposed system through the submission of:

- A completed application signed by the responsible party or owner
- A preliminary engineering report, including:

---

<sup>2</sup>The Board of Health was delegated the authority to regulate water systems. In 1982, the authority was transferred to the newly created Alabama Department of Environmental Management.

- C Estimated costs of construction, estimated annual costs of O & M, a demonstration that water rates and connection fees will be adequate to cover all O & M costs and mortgage payments, and proposed methods of financing
- C A description of the proposed service area, proposed sources of water, and a description of the treatment processes to be employed
- Plans and specifications

*B) Completed Project Approval*

Each applicant must also submit a written request for a final inspection prior to placing the system into operation. ADEM can deny a permit application for water quality deficiencies, design problems, or operational inadequacies.

**III. Program Evaluation**

ADEM has set up a separate tracking system for those water systems permitted after January 1999, to be able to compare their compliance rates to the compliance rates for those systems permitted before January 1999.

# Alaska

## I. Basis of Authority

### A) Statutory Authority

1) Alaska Statutes §46.03.020(10)(C) gives the Alaska Department of Environmental Conservation (ADEC) broad authority over the safety of public water supplies:

“The department may...(10) adopt...regulations providing for...(C) protection of public water supplies by establishing minimum drinking water standards, and standards for the construction, improvement, and maintenance of public water supply systems.”

[http://www.legis.state.ak.us/cgi-bin/folioisa.dll/stattx99/query=\\*/doc/{t17387}?](http://www.legis.state.ak.us/cgi-bin/folioisa.dll/stattx99/query=*/doc/{t17387}?)

2) Alaska Statutes §46.03.720(b) prohibits the construction or operation of a PWS without ADEC approval:

“A person may not construct, extend, install, or operate a public water supply system, or any part of a public water supply system, until plans for it are submitted to the department for review and the department approves them in writing.”

[http://www.legis.state.ak.us/cgi-bin/folioisa.dll/stattx99/query=\\*/doc/{t17387}?](http://www.legis.state.ak.us/cgi-bin/folioisa.dll/stattx99/query=*/doc/{t17387}?)

### B) Implementing Authority

The Alaska Administrative Code §18 AAC 80.207(a) lays out the capacity requirements for new CWSs and NTNCWSs applying for construction approval:

“The department will not issue an approval to construct a new Class A<sup>3</sup> public water system under 18 AAC 80.210 unless the department determines, based on the information provided under (b)-(d) of this section, that the Class A public water system has the managerial, financial, and technical capacity to operate in compliance with 40 C.F.R. 141 and this chapter.”

<http://www.state.ak.us/dec/title18/aac80ndx.htm>

### C) Responsible Agencies

ADEC is authorized to implement the capacity development program for new systems. ADEC and the Regulatory Commission of Alaska (RCA) have developed a Memorandum of Understanding (MOU) that has reduced the overlap of responsibilities between the two State agencies. If the proposed system is either exempt from the RCA statutes or is not a public utility due to size or ownership, ADEC reviews all three components. Although the MOU is finalized,

---

<sup>3</sup>As defined in 18 AAC 80.1990 (12), a Class A water system is a system that serves at least 25 individuals or 15 service connections year-round, or regularly serves the same 25 or more individuals for at least six months of the year (CWSs and NTNCWSs).



ADEC and RCA are continuing to communicate informally on ways reduce the overlap of responsibilities between the two State agencies.

## **II. Control Points**

### *A) Construction Approval*

New CWSs and NTNCWSs may not begin to construct until they have demonstrated TMF capacity and ADEC has issued an approval to construct. As described in §18 AAC 80.207, determinations of capacity proceed as follows:

#### Technical Capacity

- C Source quality adequacy, including source water protection
- C Physical infrastructure of the system
- C Ability of system personnel to adequately operate and maintain the system and otherwise implement technical knowledge (including operator certification)
- C Submission of engineering plans, including a plan for operation and maintenance of all components of the system, data showing the capability of the water system's source to meet the expected water demand
- C Data showing that a minimum of 20 psi water pressure can be maintained at the highest point in the system, and any other information ADEC considers necessary

#### Managerial Capacity

- C System's ownership accountability
- C Staffing and organization
- C Means of communication with customers
- C Professional service providers
- C Copy of its application for a certificate of public convenience and necessity (CPCN) (Systems that do not have to apply for a certificate must provide a description of the management structure of the proposed system, including the duties of each position. These systems must also provide a description of the training, experience, certification or licensing of the proposed staff, and an explanation of how the system will maintain effective external relationships.)
- C Emergency response plan
- C Documentation of legal ownership and any plans to transfer ownership after construction

#### Financial Capacity

- C Owner or operator's revenue sufficiency
- C Credit worthiness
- C Fiscal controls
- C Financial plan and budgets for operations, capital improvements, and emergencies
- C Proof that application of CPCN has been submitted (public utilities)
- C Financial Capability Assessment (non-public utilities)

### *B) Operational Approval*

ADEC reviews the technical capacity of new systems after construction, but before the systems begin providing water to the public. If ownership has changed since the issuance of the construction approval, the new owners must submit revised managerial and financial information to RCA. (As part of the construction approval process, the system is required to notify ADEC of plans to transfer of ownership after construction.)

### **III. Program Evaluation**

ADEC will evaluate the program by monitoring and tracking the compliance records of PWSs that receive operation approval through the capacity development program. Program staff will collect, review, and evaluate the number of systems that are issued approval under the program and track their compliance rates.

# Arizona

## I. Basis of Authority

### A) Statutory Authority

Section 49-353.A. of the Arizona Revised Statutes (ARS) gives the Arizona Department of Environmental Quality (ADEQ) broad authority to promulgate rules concerning the technical components of a system and requires the rules to demand a demonstration of managerial and financial capacity from new PWSs:

“The director shall:...2. Prescribe rules regarding the production, treatment, distribution and testing of potable water by public water systems...The rules shall:... (i) Require that a new public water systems demonstrate that the system possess adequate managerial and financial capacity to operate in compliance with this article and the rules adopted pursuant to this article.”

<http://www.azleg.state.az.us/ars/49/353.htm>

### B) Implementing Authority

Section R18-4-602 of the Arizona Administrative Code (AAC) requires new systems to submit to ADEQ, a business plan describing TMF capacity:

“To become a new public water system, an owner shall file an elementary business plan for review and approval by the Department, on a form provided by the Department. The elementary business plan shall meet the requirements of, and contain all information required in §R18-4-603 [Technical Capacity Requirements], R18-4-604 [Managerial Capacity Requirements], and §R18-4-605 [Financial Capacity Requirements].”

[http://www.sosaz.com/public\\_services/Title\\_18/18-04.htm](http://www.sosaz.com/public_services/Title_18/18-04.htm)

### C) Responsible Agencies

The Water Supply Division of ADEQ coordinates the capacity review process for new systems and reviews the technical and managerial capacity of all new CWSs and NCWSs. Financial capacity is reviewed by the Arizona Corporation Commission (ACC), the Arizona Department of Water Resources (ADWR), or the Water Infrastructure Finance Authority (WIFA). ACC holds hearings to review the fee and tariff structures of investor owned utilities; ADWR reviews the financial capabilities of systems that are within ADWR’s “Active Management Areas,” as well as those requiring a 100-year water adequacy through its Assured Water Supply certification program; and WIFA performs financial reviews of systems that are not under the jurisdiction of either of these two agencies. The system must communicate the results of the financial review to ADEQ.

## II. Control Points

### *A) Approval to Construct*

Before beginning construction, new water systems must submit to ADEQ, a Capacity Development Application and 5-year Elementary Business Plan. In order to demonstrate capacity, proposed systems are required to submit the following information:

#### Technical Capacity

- C Documentation showing that the system's source, treatment, design, and infrastructure are adequate and that the system has an appropriately certified operator on staff

#### Managerial Capacity

- C Future infrastructure needs estimates and a capital improvement plan
- C Operation and maintenance plan
- C Emergency operation plan
- C Ownership information
- C Organizational chart
- C Staff job descriptions and responsibilities

#### Financial Capacity

- C Systems under ACC jurisdiction must participate in rate and tariff hearings and must submit an annual income and expenses report
- C Systems reviewed by ADWR must obtain an Assured Water Supply Certification
- C Systems reviewed by WIFA are required to demonstrate through a detailed 5-year financial projection that they will collect sufficient revenues to meet all of their projected expenses, that they will generate reserves, and that their proposed rates are reasonable compared to the median household income of the area to be served

ADEQ can require the system to make modifications to the design and proposed operation of the system. ADEQ will re-review the managerial and financial information with these modifications in mind.

## III. Program Evaluation

Arizona did not mention an evaluation plan for determining the success of their capacity development program in available documents.

# Arkansas

## I. Basis of Authority

### A) Statutory Authority

Arkansas Annotated Code §20-7-109 gives the Arkansas Department of Health (ADH) broad authority to promulgate rules and regulations pertaining to the protection of public health:

“Power is conferred on the State Board of Health to make all necessary and reasonable rules and regulations of a general nature for the protection of the public health and safety.”

[http://www.arkleg.state.ar.us/lpbin/lpext.dll?f=file\[fbrowse-h.htm](http://www.arkleg.state.ar.us/lpbin/lpext.dll?f=file[fbrowse-h.htm)

### B) Implementing Authority

Section XX-Preliminary Reports of *Arkansas Rules and Regulations Pertaining to PWSs*, requires all new systems to submit a preliminary report that demonstrates TMF capacity:

“The Department shall not approve the construction of any new Community Public Water System or Non-Transient Non-Community Public Water System unless the.....[preliminary] report demonstrates the system's technical, financial, and managerial capacity to comply with the requirements of the Safe Drinking Water Act.”

<http://health.state.ar.us/eng/PWSregs99.htm>

### C) Responsible Agencies

The ADH Division of Engineering (DOE) has jurisdiction over all matters concerning the *Rules and Regulations Pertaining to Public Water Systems*. DOE also has a verbal agreement with the Arkansas Soil and Water Conservation Commission (ASWCC) to provide as-needed assistance in the evaluation of the financial and managerial capacity of new systems.

## II. Control Points

### A) Preliminary Report

Systems must submit a preliminary report to ADH that contains enough information to give ADH a “complete understanding of the proposed system.” The *Recommended Standards for Waterworks/Ten State Standards* is suggested as a guide for developing the Preliminary Report which should include, but is not limited to:

- The results of an ADH inspection of the proposed source of supply.
- A long-range plan that includes a 10-year projection of source, treatment, storage and distribution needs, and a demonstration of TMF capacity.

### *B) Plans and Specifications*

Once ADH approves the preliminary report, the system must submit plans and specifications and other documentation including an Engineers Report. The district engineer will review the information and if the system meets all criteria, the documentation will be forwarded to the engineering supervisor and the chief engineer for concurrence and approval. If the system has demonstrated adequate TMF capacity, ADH will allow the system to be constructed.

### *C) Approval to Operate*

After completing the construction of the new public water system, the water system owner is required to notify ADH that construction was completed in accordance with the approved plans and specifications. If the construction meets the approval of ADH, the Department will issue written approval to operate the system.

## **III. Program Evaluation**

ADH will track compliance rates to measure the success of their new system capacity development program. If new system compliance rates are low, ADH will assess the causes of the violations and take appropriate action to address common causes. For example, if violations appear to be caused by financial deficiencies, ADH will investigate whether the water system merely did not follow their long-range financial plan or whether the financial review criteria should be changed.

# California

## I. Basis of Authority

### A) Statutory Authority

The California Health and Safety Code (CHSC) §116540(a) requires all water suppliers of PWSs not already in existence on January 1, 1998, to demonstrate adequate TMF capabilities to the State Department of Health Services (the Department) in order to receive a permit:

“No public water system that was not in existence on January 1, 1998, shall be granted a permit unless the system demonstrates to the department that the water supplier possesses adequate financial, managerial, and technical capability to assure the deliverance of pure, wholesome, and potable drinking water. This section shall also apply to any change of ownership of a public water system that occurs after January 1, 1998.”

<http://www.dhs.ca.gov/ps/ddwem/publications/lawbook.htm>

### B) Implementing Authority

California Code §22.12.63026-28 gives the department specific authority to govern the TMF capacity assessment process. CHSC §116540 gives the department the authority to impose permit conditions as it deems necessary. The Department will impose these permit conditions through their Policies and Procedures manuals.

### C) Responsible Agencies

The Department is authorized to administer the California Safe Drinking Water Act. The Department can delegate authority to implement the drinking water program for systems serving less than 200 people to Local County Health Departments. If the Local County Health Department agrees to implement a program that is no less stringent than what is specified in the CHSC and regulations, the County is designated as a Local Primacy Agency (LPA).

## II. Control Points

### A) Operating Permit

The Department uses an operating permit process to evaluate the TMF capacity of a proposed system. Proposed systems are required to submit an application and a technical report. The technical report may include, but is not limited to, detailed plans and specifications, water quality information, a physical description, and financial assurance information. The Department has developed two *TMF Capacity Criteria* guidance documents (one for CWSs and one for both NTNCWSs and non community water systems (NCWSs) that list additional required

documentation. To allow the Department to evaluate the system's capacity, new systems must submit<sup>4</sup>:

#### Technical Capacity

- C A system map that shows proposed service area and location of facilities (CWSs must also submit as-built plans)
- C A 10-year growth projection of the system and a 10-year projection of water demand (CWSs only)
- C A source capacity assessment, including both quantity and quality considerations
- C A technical evaluation including a characterization of water quality, and an evaluation of the feasibility of consolidation
- C Operational plans, including a plan for how the system will comply with all applicable current and proposed drinking water standards (CWSs and NTNCWSs that are providing treatment only)\*
- C Evidence of the system's ability to accurately and continuously measure the quantity of water produced from each water source
- C Operator certification information\*
- C A plan for continuing education of system management and system operators (CWSs only)\*

#### Managerial Capacity

- A description of the type of system ownership
- An organizational chart and a complete description of reporting relationships and primary responsibilities of all key personnel
- A description of the training and experience of management personnel
- A description of how legal, engineering, and other professional services are provided
- If the system contracts for services, a copy of the contract
- A description of the legal basis and authority for the diversion or the extraction of water
- Information that demonstrates that the water system has complied with local land and water use plans
- An emergency/disaster response plan\*

#### Financial Capacity

- A five-year budget projection
- A capital improvement/equipment replacement plan (CWSs only)
- A description of the water system's budget control and reporting procedures (CWSs only)\*
- A description of reserve accounts (CWSs only)\*

---

<sup>4</sup>Elements marked with an asterisk (\*) are not necessary at the time of the permit application but must be developed by the water system within an agreed upon time frame. A schedule is included in the permit when it is issued by the Department.



The Department may conduct an on-site visit. Once the Department has determined that the system has the capacity to reliably deliver safe water, the Department will grant the system a permit to operate. The permit often contains special conditions appropriate to the water system.

### **III. Program Evaluation**

At the end of every year, the Department will review all permits issued to new water systems to ensure that proper TMF review procedures were followed. The Department will also conduct periodic compliance assessments of new systems to determine if the TMF capacity criteria were effective.

# Colorado

## I. Basis of Authority

### A) Statutory Authority

Colorado Revised Statutes §25-1-107(1)(x) gives the Department of Public Health and Environment (DPHE) broad authority to enforce the Safe Drinking Water Act for new waterworks:<sup>5</sup>

“The department has, ... the following powers and duties: ... Review and approval by the department, prior to initiation of construction, of the technical plans and specifications, long-term financial plans, and operations and management plans for any new waterworks or technical plans and specifications for substantial modifications to existing waterworks...”

<http://www.leg.state.co.us/inetcrs.nsf/caff08b8a0e34035872565e8006d65f8/78ece12faabfd390872567df005b31fe?OpenDocument>

### B) Implementing Authority

1) The Colorado Primary Drinking Water Regulations (CPDWRs) §2.1.4 prohibit the construction of new waterworks unless DPHE has given approval:

“No person shall commence construction of any new waterworks, or make improvements to or modify the treatment process of an existing waterworks, or initiate use of a new source, until plans and specifications for such construction, improvements, modifications or use have been submitted to, and approved by the Department... The Department shall grant such approval when it finds that the proposed facilities are capable of complying, on a continuous basis, with all applicable laws, standards, rules and regulations.”

<http://www.cdphe.state.co.us/regs/n100301.pdf>

### C) Responsible Agency

DPHE is authorized to implement the SDWA and the Colorado Drinking Water Program. The Water Resources Division of the Department of Natural Resources (DNR) provides water rights certification to new systems. Systems must submit a valid water rights certificate as a component of technical capacity.

---

<sup>5</sup>New waterworks means any newly constructed public water system, or existing system that becomes, by definition, a public water system by virtue of increasing the number of connections, the number of individuals served, or the number of days of service. CPDWR 2.1.2(3).

## II. Control Points

### *A) Construction Approval*

A system must submit the following documentation to DPHE to be considered for a construction approval:

- A water system construction approval application
- Detailed plans and specifications including blueprints
- A project summary
- Design calculations
- Well construction details
- County and Local Health and Planning Department approvals
- A flood plain certificate
- An inventory form
- Chemical analysis of the raw water
- A lead and copper assessment
- A managerial plan
- A financial plan
- A water rights certification and a well permit

Once all the required documentation has been submitted, DPHE uses the materials to assess the capacity of the proposed waterworks. A demonstration of adequate capacity includes:

#### Technical Capacity

- Finished water that meets all required drinking water standards
- Personnel that are able to operate the system effectively
- Delineation of operator and staff responsibilities
- A valid water rights certification from the DNR showing sufficient water supply to meet the needs of the projected population to be served

#### Managerial Capacity

- Identification of the system owner, manager, and operator on an organizational chart
- Satisfaction of operator certification requirements
- A system to maintain all required records, distribution system histories/maps, and compliance information
- An O & M manual that includes a description of the facilities, explanations of startup and normal operation procedures, sampling schedules, staffing requirements, potential water supply risks, a safety program, plans for tracking unaccounted water, available external resources, an emergency management plan, manufacturer's manuals, budget development, rate structure, cross-connection control policy, public education policies, customer complaint policies, and policy for notification of a water quality violation

### Financial Capacity

- A 5-year budget
- Itemization of projected expenses and revenues
- Comparisons of anticipated revenues and expenditures for 5 years
- Identification of reserve accounts for emergencies and O & M funds
- Access to public/private financial capital
- Revenues that are greater than costs
- Periodic financial audits
- An annual budget
- Rates that are less than 1.5% of the county's average annual median household income
- An operating ratio greater than 1.0
- A coverage ratio greater than 1.0
- An emergency reserve that is funded
- Development of a capital improvement plan
- Metered service connections

After review of the submitted documentation, DPHE will notify an applicant whether the application was approved, conditionally approved, or denied. If the proposed waterworks failed to demonstrate capacity, DPHE will send a list of deficiencies along with names of assistance providers that can help the system improve capacity. If the deficiencies are not addressed, DPHE will deny the construction approval application.

### **III. Program Evaluation**

Colorado does not mention an evaluation plan for determining the success of their capacity development program in available documents.

## Connecticut

### I. Basis of Authority

#### A) Statutory Authority

1) Connecticut General Statutes (CGS) §16-262m requires all new water companies<sup>6</sup> to apply to the Department of Public Health (DPH) and the Department of Public Utility Control (DPUC) for a Certificate of Public Convenience and Necessity (CPCN) prior to construction, and specifies that DPH and DPUC will base their decisions, in part, on a system's financial, technical, and managerial resources:

“No water company may begin the construction of a water supply system ... without having first obtained a CPCN from the DPUC and the DPH ...The departments shall issue a certificate to an applicant upon determining, to their satisfaction, that ...(3) the applicant has the financial, technical, and managerial resources to operate the proposed water supply system in a reliable and efficient manner and to provide continuous adequate service to consumers served by the system.”  
<http://www.cga.state.ct.us/ps99/pubstat/16--00--0262--mk.doc>

2) CGS §25-33(b) prohibits water companies from constructing water systems without DPH approval:

“No system of water supply owned or used by a water company shall be constructed or expanded or a new additional source of water supply utilized until the plans therefor have been submitted to and approved by said department.”  
<http://www.cga.state.ct.us/ps99/pubstat/25--00--0033---k.doc>

#### B) Implementing Authority

1) DPUC Regulation 16-262m outlines the requirements a new water company must meet to obtain a CPCN.

[http://www.dpuc.state.ct.us/DPUCINFO.nsf/\(\\$By+Water\)?OpenView](http://www.dpuc.state.ct.us/DPUCINFO.nsf/($By+Water)?OpenView)

2) Public Health Code (PHC) Regulation 19-13-B102(d)(2) requires new PWSs to notify DPH of plans to construct a new water system and obtain approval from DPH before any construction begins:

---

<sup>6</sup>“Water company’ means a corporation, company, association, joint stock association, partnership, municipality, other entity or person, or lessee thereof, owning, leasing, maintaining, operating, managing or controlling any pond, lake reservoir, stream, well or distributing plant or system employed for the purpose of supplying water to fifteen or more service connections or twenty-five or more persons on a regular basis.” Public Act No. 98-250

“The state health department must be notified before entering into a financial commitment for a new public water system or increasing the capacity of an existing public water system, and the approval of the state health department must be obtained before any construction is begun.”

<http://www.state.ct.us/dhp/phc2K/phc2K%20search.htm>

### *C) Responsible Agencies*

DPH has jurisdiction over all matters concerning the purity and adequacy of drinking water in Connecticut. DPH and DPUC work collaboratively to issue CPCNs to new water companies. DPH reviews the technical and managerial aspects of the application, and DPUC reviews the managerial and financial information in the application.

## **II. Control Points**

### *A) CPCN*

A CPCN is required for all new water companies. The application process occurs in three phases: I-A, I-B, and Phase II:

During Phase I-A, a proposed system must demonstrate to DPH:

- C The feasibility of interconnection to an existing system
- C The location and proposed construction of any source of supply
- C The possible duplication of service and water facilities caused by the installation of the proposed system
- C The name of an existing regulated or municipal water utility or regional water authority which will own, operate, and maintain the final constructed water supply facilities if they are to remain as a non-connected satellite system

A proposed system can develop the source of supply upon approval of the Phase I-A documentation.

Phase I-B requires the proposed system to submit well yield data and water quality data for each well. Upon approval of Phase I-B documentation, the proposed system can secure building permits, if required.

During Phase II, the proposed water company must submit:

### Technical Capacity

- C A description of the technical background and experience of the proposed operator and a signed agreement or contract to guarantee continuous long-term operation
- C Plans for conducting cross-connection investigations; conducting required sampling, testing and reporting; maintenance of the system; maintenance of required records; operator safety; leak detection; long-range water conservation; and action and proper notification of authorities in an emergency

### Managerial Capacity

- C The names and addresses of the person(s) or company responsible for routine operations, budget preparation and administration, and for filing tax returns and annual audit reports
- C A description of the planning process and the assignment of responsibilities to meet future customer needs
- C A description of the applicant's business organization
- C The qualifications of a business manager if one is employed
- C A description of the governing board, its background in utility business governance, and the decision making process of the management entity
- C A list of operator and manager responsibilities

### Financial Capacity

- C A current 12-month balance sheet and income statement and copy of the current income tax return of the proposed owner of the system
- C A description of the financial resources to continuously provide adequate and safe water in routine and emergency situations, including a cash flow statement for the year after construction is completed
- C A description of fiscal controls
- C An estimated itemized cost of water facilities to be constructed or expanded

If both DPH and DPUC approve the Phase I-A, Phase I-B, and Phase II documentation, they will issue a CPCN. If the system cannot provide any of the required items or cannot demonstrate capacity, the Departments may advise the applicant of changes that must be made before a CPCN can be issued.

### *B) DPH Approval of Construction, Treatment, and Source Water*

DPH must approve the construction, expansion, or addition of new sources of supply. The department consults with, and advises the water company as to proposed sources of water supply and methods of assuring their purity and adequacy.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, DPH will consult with a number of forums to review current processes, take comments on needed improvements, and develop regulatory revisions. The forums include:

- The DPUC docket
- DPH and DPUC Regulatory Work Group, in cooperation with other involved State agencies (e.g., Department of Environmental Protection and the Office of Policy and Management)
- Performance Partnership Agreement Advisory Committee and Internal Committee
- Water Utility Regulation Coordination Group

## **Delaware**

### **I. Basis of Authority**

#### *A) Statutory Authority*

Delaware House Bill 427 (Delaware Annotated Code Title 16.01.122(5)) provides the Delaware Health and Social Services (DHSS) with specific authority to ensure capacity in all new water systems in the State:

“The Department shall ensure that all new community and noncommunity public water systems commencing operation after October 1, 1999, demonstrate technical, managerial, and financial capacity...”

<http://www.lexislawpublishing.com>

#### *B) Implementing Authority*

1) State of Delaware Regulations Governing Public Drinking Water §22.211A require all new water systems to obtain a certification of approval from the Department prior to construction:

“No person shall construct a new public water system... without a Certificate of Approval for Construction.”

2) State of Delaware Regulations Governing Public Drinking Water §22.211B require all new systems to submit an application for Capacity Development Review:

“All new community and nontransient noncommunity systems must comply with §22.211A and in addition, submit an Application for Capacity Development Review.”

3) State of Delaware Regulations Governing Public Drinking Water §22.212A and B require new systems to apply for a Certificate of Approval to Operate:

“(A)No person shall operate a newly constructed water system without a Certificate of Approval to Operate. A Certificate of Approval to Operate shall be issued by the Division to water systems which meet the following requirements....(B) a certification by a professional engineer that the system was built in accordance with approved plans and specifications,... managerial and financial information as required by the Division to demonstrate compliance with Capacity Development...”

#### *C) Responsible Agency*

The DHHS issues Certificates of Approval to Construct and Operate and otherwise implements the Delaware Drinking Water Program.



## **II. Control Points**

### *A) Certificate of Approval to Construct*

Systems may not commence construction without first securing a Certificate of Approval to Construct from DHHS. In order for DHHS to process a system's application of an Approval to Construct, the system must submit:

- A completed application
- A description of the nature and extent of the water supply system
- An engineering description
- Plans and specifications
- An annual budget
- An emergency plan
- A cross connection control plan
- An organizational chart
- A water conservation plan
- A long-term plan

### *B) Certificate of Approval to Operate*

Systems may not begin to operate without obtaining a Certificate of Approval to Operate from DHHS. Additional information must be submitted by the system and DHHS must determine that the system has adequate technical, managerial, and financial capacity:

- Notice of Completion signed by an engineer certifying that the system was built in accordance with approved plans
- Certification that the system will use the services of a certified drinking water operator
- Water quality sampling results
- O & M manual
- A CPCN or water allocation permits, if required
- User rate schedules

DHHS will review the documentation and notice of Completion and issue a Certificate of Approval to Operate if the systems has met all DHHS criteria.

## **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, the DHHS will track new system's monitoring and compliance rates using the SDWIS database and maintain records of the numbers of Certificate of Approval applications and approvals and annually review those approvals.

## Florida

### I. Basis of Authority

#### A) Statutory Authority

Florida Statutes §403.8615(1) requires the Florida Department of Environmental Protection (FDEP) to require new CWSs and new NTNCWSs seeking to commence operations after October 1, 1999, to demonstrate capacity:

“The department shall require all new community water systems and new nontransient, noncommunity water systems seeking to commence operation after October 1, 1999, to demonstrate the technical, managerial, and financial capabilities to comply with national primary drinking water regulations as required by the federal Safe Drinking Water Act, as amended. The department shall establish by rule. . . the criteria for determining technical, managerial, and financial capabilities.”

<http://www.dep.state.fl.us/ogc/documents/statutes/text/ch403.rtf>

#### B) Implementing Authority

Florida Administrative Code Section 62-555.525(2) requires systems to demonstrate capacity (as set forth in the section) in order to receive a construction permit:

“To receive a construction permit, all new community and non-transient noncommunity water systems must demonstrate the technical, managerial, and financial capacity to comply with the requirements.”

<http://www.dep.state.fl.us/ogc/documents/rules/drinkingwater/62-555.doc>

#### C) Responsible Agencies

FDEP has the primary role of regulating PWSs in Florida. For systems subject to new systems CD requirements, FDEP will not issue a construction permit unless it receives an acceptable capacity demonstration and the system satisfies all other FDEP requirements, except as follows. The Florida Public Service Commission (FPSC) regulates the financial capacity for those systems under the Commission’s jurisdiction. Systems under the FPSC’s jurisdiction are not required to demonstrate financial capacity, because the FPSC implements financial requirements for its systems.

## **II. Control Points**

### *A) Construction Permit*

New systems must secure a construction permit from FDEP prior to commencing construction.

To receive a construction permit, all new systems must:

- Submit an application that includes an engineering report, plans and specifications,
- Employ, contract for the services of, or have the system owner be a certified operator
- Demonstrate the capabilities to conduct monitoring and reporting programs and maintain required records
- Demonstrate the capabilities to meet O & M requirements
- Provide projected or actual income sources and funds; projected and actual expenses for a five-year planning period; names and contact information for owners, operators, and employees responsible for making decisions; planning documents; and a description of the alternate means of supplying water considered by the system (including the TMF reasons for the selected option)
- Receive notification from FDEP concerning which planning documents will be due and when
- Meet FPSC financial and managerial requirements, if applicable

### *B) Letter of Clearance*

After construction but prior to the commencement of operation, the system must submit an engineer's certification of completion and satisfactory water quality results, and pass a FDEP inspection. When the system passes inspection and FDEP is satisfied that the system has adequate technical, managerial, and financial capacity, FDEP will issue a Letter of Clearance and the system may begin operating.

FDEP can deny a permit application, request additional information, and deny the issuance of the Letter of Clearance if the Department determines that the system will not be able to operate in compliance with all applicable rules.

## **III. Program Evaluation**

FDEP uses a spreadsheet program to track the status of the systems subject to the new systems capacity development program. Implementation data is collected, including the number of construction permit applications, the number denied, the reasons for denial, and the number of revised based on Department comment. Compliance rates for new systems will be evaluated using record data and results of onsite inspections. FDEP will periodically reevaluate the program and make changes as necessary.

# Georgia

## I. Basis of Authority

### A) Statutory Authority

Ga. Code Ann. §12-5-179(b) requires new systems to secure a permit prior to the commencement of operation and gives the director of the Department of Natural Resources (DNR) the broad authority to require the submission of information:

“Any person who desires to own or operate a public water system. . . must obtain such permit prior to the operation of the same. The director, under the conditions he prescribes, may require the submission of such plans, specifications, and other information as he deems relevant in connection with the issuance of such permits.”

<http://www.ganet.org/services/ocode/ocgsearch.htm>

### B) Implementing Authority

Georgia DNR, Environmental Protection Division (EPD), Rules for Safe Drinking Water Paragraph 391-3-5-.17(3) allows the director to require a demonstration of capacity prior to issuing a permit:

“Any applicant for a permit whose application is pending final consideration shall upon the request of the Director provide such additional information as may be necessary to enable the Director to properly pass upon the application. Such additional information may include . . . documentation to demonstrate system’s financial, technical, and managerial capacity with respect to drinking water regulations in effect or likely to be in effect.”

<http://www.ganet.org/dnr/environ/>

### C) Responsible Agencies

The Georgia DNR EPD, Drinking Water Permitting and Engineering Program (DWPEP) and Drinking Water Compliance Program (DWCP) are primarily responsible for the implementation of the Georgia Safe Drinking Water Act.

## II. Control Points

### A) Approval to Construct

Prior to applying for approval to construct, all proposed PWSs evaluate the feasibility of connection to an existing governmentally owned water system. (Rules for Safe Drinking Water

Paragraph 391-3-5-.04(3)). If connection to a governmentally owned system is not available or feasible, then the applicant must submit to DWPEP:

- An application for approval to construct signed by the owner
- An engineering report which contains among other things, a business plan demonstrating that the system has the financial, technical, and managerial capability to comply with federal and State drinking water regulations
- Plans and specifications
- Written certification by the owner outlining why the proposed system cannot connect to an existing local governmentally owned water system
- An executed trust indenture in which a trustee (preferably the local government authority) agrees to ensure proper operation and maintenance of the system (for all non-governmentally owned systems)

Privately owned water systems must also submit:

- Written certification from the local government concurring with the development of the system
- A multi-year business plan which adequately demonstrates a water system's managerial and financial capacity.

#### *B) Operating Permit*

After construction, a system must submit:

- An application for a permit to operate signed by the owner and clearly identifying the name and contact information for the system's certified operator
- Engineers certification that construction was completed in accordance with approved plans and specifications

If the system meets all State and local requirements, DWPEP will issue a permit to operate.

### **III. Program Evaluation**

EPD will evaluate program success by comparing the compliance records of new PWSs with the compliance records of systems constructed before the capacity requirements went into effect.

# Hawaii

## I. Basis of Authority

### A) Statutory Authority

§340E-2.5 of the Hawaii Revised Statutes (HRS) gives the Department of Health (DOH) specific authority to adopt rules to ensure that new systems demonstrate adequate capacity prior to the commencement of operation:

“The director may adopt rules to ensure that public water systems demonstrate technical, managerial, and financial capacity with respect to each state primary drinking water regulation in effect, or likely to be in effect, when the systems supply drinking water or commence operations.”

[http://capitol.hawaii.gov/hrscurrent/Vol06/hrs340e/HRS\\_340E-2\\_5.htm](http://capitol.hawaii.gov/hrscurrent/Vol06/hrs340e/HRS_340E-2_5.htm)

### B) Implementing Authority

1) Hawaii Administrative Rule (HAR) Section 11-20-29(e) requires that the new water systems with a new source of raw water, demonstrate capacity before the DOH approves the new source of water. The approval for the use of the water is processed concurrently with the approval to construct with the DOH approval to use the system.

“(e) Before the director approves the use of a new source of raw water to supply a new community public water system or a new non-transient non-community water system, the proposed supplier of water shall demonstrate the new public water system to be supplied by the new source of raw water has adequate capacity under section 11-20-29.5. Approvals for the use of a new water source of raw water to supply a proposed public water system subject to Section 11-20-30(d) shall be processed concurrently with the director’s approval to construct...and be granted concurrently with the director’s approval to use the public water system.”

2) Hawaii Administrative Rules (HAR) Section 11-20-30(a) requires that new or modified PWSs obtain approval from the DOH before construction or operation:

“(a) No new public water system shall be constructed or used to deliver water to any user..until the new public water system...has been approved by the director...”

3) HAR Section 11-20-30(d) requires new or modified systems to demonstrate capacity in order to obtain the approval required under HAR Section 11-20-30(a):

“(d) For approval of a new community public water system or new non-transient non-community public water system, required under subsection (a),...the proposed supplier of water...shall... demonstrate to the director’s satisfaction that the proposed system has adequate capacity as described in §11-20-29.5.”

<http://www.state.hi.us/doh/rules/emd/11-20.pdf>

*C) Responsible Authority*

DOH's Safe Drinking Water Branch (SDWB) is responsible for implementing the new water system capacity development requirements. On a case by case basis, DOH will request the assistance of the Wastewater Branch or the Public Utilities Commission.

**II. Control Points**

*A) Interim Approval for New Water Source and Approval to Start Construction*

New systems will need to obtain a review that the new water source is satisfactory for potable water use and selected TMF capacity attributes must be demonstrated before approval to construct is granted. The construction plans for the water system must also be DOH approved. To apply for approval to construct, the system must submit:

- C Documentation and information requested by the SDWB's *Interim Capacity Approval for New Community and New Non-transient Non-community Water Systems*. The owner must demonstrate that selected TMF capacity attributes prior to construction are satisfactory
- C An engineer's report, including information on chemical and pesticide analysis and quality of the water, and other information needed to obtain interim approval, to provide assurance that the new water source will be satisfactory
- C Construction plans for DOH review and approval

*B) Preuse Approval*

To obtain approval to operate the new water system, the owner must submit the documentation and information requested by the SBWD's *Evaluating Capacity Of New Community and New Non-transient Non-community Water Systems*. The SDWB evaluates the following:

Technical Capacity

- C Certification that the system has been built in accordance with the approved construction plans and specifications
- C The source water is satisfactory and adequate source of supply
- C Operators are certified and operating procedures are available
- C Water quality monitoring plans are available
- C An adequate infrastructure replacement plan
- C An adequate O & M plan
- C An adequate operator training program
- C A cross-connection and backflow prevention program
- C A system to maintain and update plans

Managerial Capacity

- C Clear organizational structure and communications

- C Clear identification of ownership
- C An adequate information management system
- C Qualified management and a management training program
- C An adequate emergency response plan
- C Adequate internal policies, covering customer service, communications with regulatory officials, and budget and rate development

#### Financial Capacity

- C An adequate budget
- C Adequate budget controls
- C Credit worthiness

Points are assigned for each attribute, and each component of capacity is ranked as “satisfactory” or “needs assistance” depending on the total number of points earned. A system must be evaluated as “satisfactory” in each capacity component (TMF) to demonstrate adequate capacity. A system evaluated as “needs assistance” may request a capacity reevaluation after correcting the problems which caused the “needs assistance” capacity rating.

### **III. Program Evaluation**

Hawaii will evaluate capacity development program two years after the program is adopted and every three years thereafter. The evaluation will be included in the report to the Governor.



# Idaho

## I. Basis of Authority

### A) Statutory Authority

Idaho Code §39-105(3)(e) gives the Idaho Department of Health and Welfare specific authority to implement a capacity development strategy:

“The powers and duties of the director shall include...implementation of a capacity development strategy to ensure public drinking water systems have the technical, managerial, and financial capability to comply with the national primary drinking water regulations.”

<http://www3.state.id.us/cgi-bin/newidst?sctid=390010005.K>

### B) Implementing Authority

Idaho Administrative Code (IDAPA) Section 16.01.08.549 requires a demonstration of capacity before commencing construction of a new CWS or new NTNCWS:

“No person shall proceed, or cause to proceed, with construction of a new community or nontransient, noncommunity drinking water system until it has been demonstrated to the Department that the water system will have adequate technical, financial, and managerial capacity.”

<http://www2.state.id.us/adm/adminrules/rules/idapa16/0108.pdf>

### C) Responsible Authority

The Idaho Division of Environmental Quality (DEQ), within the Department of Health and Welfare, is responsible for implementing Idaho’s new system capacity assurance program. The Idaho Public Utilities Commission (IPUC) is responsible for regulating privately owned water utilities that are operated for profit. These systems are subject to evaluation of TMF capacity that is no less stringent than the assessment performed by DEQ. An IPUC certificate of public convenience and necessity is equivalent to the approval to proceed with construction issued by DEQ.

DEQ also works with State Health Districts which are responsible for implementing and enforcing sanitary requirements applicable to private residential developments, and the Idaho Water Resources Board (IWRB) which has established requirements for permitting and construction of water wells. IWRB and DEQ are working toward a joint policy which will standardize the approach to public water supply regulatory oversight throughout the State.

## **II. Control Points**

### *A) Construction Approval*

Before new or expanding PWSs can begin construction, they must receive written approval from DEQ. To obtain this approval, systems must submit:

- C System ownership and management information
- C A service area/facilities map
- C A component inventory and assessment
- C Water usage projections
- C Proof of water rights and initial monitoring
- C Monitoring and compliance plans
- C A capital replacement plan
- C An O & M manual
- C A cross-connection control plan
- C An emergency response plan
- C A source water protection plan
- C A five-year budget

A satisfactory demonstration of capacity also requires the owner of the proposed new system to investigate the feasibility of obtaining water service from an established PWS. If consolidating with an existing system is a feasible option the owner must justify the decision to proceed with a stand-alone system.

### *B) Sanitary Restrictions*

Private residential developments must secure approval for sewage and water facilities. If the Health District finds that a public water system will be created in the development, it refers the application to DEQ. The State Health District will not remove sanitary restrictions until the developer secures construction approval for a new system from DEQ.

### *C) Well Construction Permit*

IWRB reviews well permit applications and alerts DEQ if the well will be a source of supply for a public water system. IWRB will not issue a well drilling permit until DEQ issues a letter of approval for the well site.

## **III. Program Evaluation**

DEQ intends to keep a log of all new systems that receive construction approval after June 1, 1999. The compliance records of these systems will be manually tracked to determine if their compliance records reflect a consistent and sustained ability to deliver safe water. (Eventually the tracking system will be computerized.) In addition to compliance data, DEQ will also examine sanitary survey results, wellhead protection plans, operator certification, and communications with regulatory agencies. Feedback from the tracking process will be used to

make improvements to the guidance document, *How to Demonstrate Financial, Technical, and Managerial Capacity in New Public Water Systems*, and to the new system capacity program.

## **Illinois**

### **I. Basis of Authority**

#### *A) Statutory Authority*

Illinois Compiled Statutes (ILCS) §415 ILCS 5/15 requires new systems to demonstrate capacity as a condition of receiving a construction or operation permit:

“... (b) All new public water supplies established after October 1, 1999 shall demonstrate technical, financial, and managerial capacity as a condition for issuance of a construction or operation permit by the Agency or its designee.”

<http://www.legis.state.il.us/ilcs/ch415/ch415act5articles/ch415act5Sub4.htm>

#### *B) Implementing Authority*

Illinois Administrative Code (IAC), Subtitle F, Subpart G, §652.701 requires systems to demonstrate capacity:

“Beginning after October 1, 1999, all new public water supplies must demonstrate technical, financial, and managerial capacity to ensure compliance with the applicable federal and State drinking water standards ...”

<http://www.ipcb.state.il.us/title35/download/F652.doc>

#### *C) Responsible Agency*

The Illinois Environmental Protection Agency (IEPA) is the primacy agency for the Illinois Drinking Water Program.

### **II. Control Points**

#### *A) Construction Permit*

A system must secure a construction permit from IEPA before construction of a PWS can begin. The proposed system must demonstrate TMF capacity before IEPA will issue the permit. The system must submit:

#### Technical Capacity

- Documentation of compliance with standards for design, construction, and operation of public water supplies
- The selection of a source that is economical, reliable, and adequate
- Documentation of compliance with ownership, certified operator, and responsible operator rules
- Documentation of compliance with federal and State drinking water standards
- A summary of design basis and general layout information

- A list of operational requirements
- A professional seal from a person qualified under the Illinois Architecture Practice Act, the Illinois Professional Engineering Practice Act, or the Illinois Structural Engineering Licensing Act
- Detailed plans and specifications

#### Managerial Capacity

- An organizational chart of system responsibilities
- An operational management plan with operating procedures, personnel responsibilities, a description of how changes will be made, and how these changes will be reported and implemented
- An emergency management plan with potential risks to system, personnel responsible for responding, notifying the public, and press relations, and measures for avoiding emergencies
- A plan for on-going training participation by staff

#### Financial Capacity

- A five-year budget with revenue, expenses, reserves, capital improvements, and an emergency reserve fund
- A description of income, investment, and disbursement procedures with fiscal management reports
- A plan for financial growth, potable water demands, and regulatory compliance

#### *B) Operating Permit*

A system must secure an Operating Permit from IEPA before operation of a PWS can begin. The system must submit:

- Name and certificate number of the certified operator or name and registration number of the registered person in charge of supplies
- Name and location of water supply
- Construction permit number for the water supply

### **III. Program Evaluation**

Illinois does not mention an evaluation plan for determining the success of their capacity development program in available documents.

# Indiana

## I. Basis of Authority

### A) Statutory Authority

Indiana Code §13-18-21-3(d) gives the Indiana Department of Environmental Management (IDEM) broad authority to ensure that new systems demonstrate capacity:

“... This is all the legal authority required by the State for the budget agency and the department to ensure that all new community water systems and new nontransient, noncommunity water systems... commencing operations after October 1, 1999, demonstrate technical, managerial, and financial capacity with respect to each federal primary drinking water regulation... The department has primary responsibility to carry out this sub section.”

<http://www.state.in.us/legislative/ic/code/title13/ar18/ch21.html>

### B) Implementing Authority

Section 327 Indiana Administrative Code (IAC) 8-3-1.1 requires new systems to demonstrate capacity in order to receive a permit to construct:

“(a) A new community public water supply system and a new nontransient noncommunity public water supply system that will commence operation after October 1, 1999, must fulfill the requirements of §327 IAC 8-3.6 prior to making a submission to the commissioner for a permit to construct as described in sections 2 and 3 of this rule.”

<http://www.ai.org/legislative/iac/>

### C) Responsible Agencies

IDEM has been delegated the authority to administer Indiana’s capacity development program. The Indiana Office of the Utility Consumer Counsel (IOUCC) and the Indiana Utility Regulatory Commission (IURC) assist with the review of a system’s financial capabilities.

## II. Control Points

### A) Water System Management Plan (WSMP) Approval

New systems must submit a WSMP to IDEM that includes:

#### Technical Capacity

- A description of the type of system, the planned service area, and the public water supply system by county, section, township, and range
- A site plan
- A description of the design basis and anticipated useful life for treatment and transmission facilities

- Identification of interconnections with other systems
- A description of the fire protection demand on the system
- A description of a plan for metering water production and use
- A description of plans to manage treatment waste
- A description of the highest flood elevation at the site of sources and facilities
- Details of source adequacy including: a site map; a summary of water quality; proposed protection activities; methods to provide for operation, maintenance, inspection, testing, repair, replacement, and associated record keeping for source and pumping facilities; water meters; an infrastructure replacement plan; and information on providing a certified operator

#### Managerial Capacity

- A description of the organization and its ownership
- A chart showing chain of command; an assessment of job responsibilities for each management position
- A description of ability to respond to emergency situations including risks, responsible staff, response actions, notification procedures, alternate water supply, and existence/limits of insurance
- An assessment of consolidation or interconnection with other systems including a cost and benefit comparison
- An assessment of authority and responsibility considering each policy, ordinance, rule, and regulation
- A summary of existing requirements pertaining to the proposed water system
- A description of required staff qualifications
- A proposal for continued training

#### Financial Capacity:

- A five year budget plan that includes: a statement of retained earnings and cash flows for each of the five years; an account of operating revenues; and an account of expenses for operation, maintenance, and administration expenses
- A twenty year financial plan that includes projected growth and how this growth can be met, an infrastructure replacement plan including funding, and an account for funding needed repairs to meet drinking water standards and growth

#### *B) Construction Permit*

Once the WSMP has been approved by IDEM, the system must submit plans and specifications and a Construction Permit application including:

- Contact information
- A description of the project including funding sources
- A list of all parties requiring notification of granting, renewing, restoring, transferring, or denying a license
- A seal from a professional engineer certifying that by following the plans and specifications drinking water will be of satisfactory quality
- A proposed schedule for construction

IDEM will review the application and information and issue a Construction Permit if the system has met all the requirements.

### **III. Program Evaluation**

IDEM will evaluate the compliance status of systems that begin operation after October 1, 1999 to determine whether the Water System Management Plan approach is successful in lowering violation rates.



# Iowa

## I. Basis of Authority

### A) Statutory Authority

1) Iowa Code Chapter 455B.173(3) delegates broad statutory authority to the Iowa Department of Natural Resources (IDNR) to implement rules and regulations pertaining to PWSs:

“The commission shall, establish...rules relating to the location, construction, operation, and maintenance of...public water supply systems...and specifying the conditions, including the viability of a system.”

<http://www.legis.state.ia.us/IACODE/1999SUPPLEMENT/455B/173.html>

2) Iowa Code Chapter 455B.174(4a) requires that all new PWSs must obtain written permit approval from IDNR prior to commencing construction and operation of a PWS:

“The Director shall approve or disprove the plans and specifications for the construction of public water systems... The director shall issue...permits for the operation, construction....of any public water supply system...”

<http://www.legis.state.ia.us/IACODE/Code1999SUPPLEMENT.pl>

### B) Implementing Authority

The Iowa Administrative Code (IAC) Rule 567 Chapter 43.8(4)a, requires new systems to submit a viability<sup>7</sup> assessment as part of the construction permit process:

“New public water supply system (including community, nontransient noncommunity systems, and transient noncommunity systems) commencing operation . . . are required to submit a completed system viability assessment for review by the department, prior to obtaining a construction permit.”

<http://www.legis.state.ia.us/Rules/2000/iac/567iac/56743/56743125.pdf>

### C) Responsible Agencies

The IDNR is the primacy agency for Iowa water supply programs and is responsible for implementing the Capacity Development Program for new systems.

---

<sup>7</sup> A viable system means a system with the technical, financial and managerial ability to comply with applicable drinking water standards. IAC Rule 567 Chapter 43.8(1)

## **II. Control Points**

### *A) Construction Permit*

All new systems are required to secure a construction permit. The system is required to submit:

- C An application
- C An engineering report
- C Plans and specifications
- C Source approval and monitoring results
- C A complete viability assessment (i.e. a self assessment) that includes
  - C A facilities plan (a description of supply sources and facilities, treatment, and infrastructure)
  - C A management plan (O & M, and management and administration information)
  - C A financial plan (capital and operating costs, identification of revenue sources, and a contingency plan)

The system is asked to forecast viability for a 20-year period. IDNR can require the submission of additional information and can deny a permit application for lack of viability.

### *B) Operation Permit*

Once a system completes construction, it must submit an application for an Operation Permit. IDNR will inspect the system and issue an operation permit to a PWS that is viable, has submitted an “as-built” certification from a registered professional engineer, and has obtained a construction permit.

## **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, IDNR will compare the compliance rates of systems undergoing the viability assessment to those that received permits prior to the implementation of the capacity program. If IDNR determines that the violation could have been prevented through changes to the new systems’ viability determination process, appropriate changes will be incorporated.

## **Kansas**

### **I. Basis of Authority**

#### *A) Statutory Authority*

1) Kansas Statute Annotated (KSA) §65-163(a)(1) requires PWSs to secure a permit from the Kansas Department of Health and Environment (KDHE) prior to construction and operation of a PWS:

“(a)(1) No person shall operate a public water supply system within the State without a public water supply system permit from the Secretary. An application for a public water supply system permit shall be submitted for review and approval prior to construction and shall include: (A) a copy of the plans and specifications. . . and (D) such other data and information as required by the secretary of health and environment.”

[http://www.ink.org/public/legislative/display\\_bill.cgi](http://www.ink.org/public/legislative/display_bill.cgi)

#### *B) Implementing Authority*

Kansas Administrative Regulation §28-15-16(a)(1) requires a proposed system to secure a permit prior to construction and operation:

“(a)All public water supply systems shall be required to have a permit issued by the secretary. (1)An application for the public water supply permit shall be submitted for review and approval before the use of a source of water supply or construction [of a public water supply].”

#### *C) Responsible Agencies*

The KDHE has primary implementation, enforcement, and administrative responsibility over all matters concerning drinking water in Kansas. The KDHE has entered into a MOU with the Kansas Department of Agriculture, Division of Water Resources (DWR) since the DWR is responsible for issuing water rights permits. DWR has agreed to notify the KDHE of all applications for new PWS sources.

### **II. Control Points**

#### *A) Public Water Supply Permit: Authorizing Construction*

Water systems must receive approval to construct in order to commence construction of a new water system. KDHE has developed a two part application. Part one consists of general questions concerning the source of supply, proposed treatment processes, pumping, and distribution, and requires the system to submit plans, specifications and maps. Part two is the TMF capacity assessment. KDHE recognizes that certain managerial and financial information will be prepared during construction and, therefore, part two contains a list of “capacity elements

required at the time of application,” and “elements of capacity to be developed.” A system will not be granted a Permit to Construct unless it submits:

- A five year projection of anticipated revenues and expenditures
- A description of the revenue determination process
- A description of the system’s proposed schedule and process for reviewing water system revenue requirements
- A description of the system’s reserve accounts
- The establishment, and description, of a debt service reserve fund
- An organizational chart
- The name, position, and title of those responsible for making decisions
- A description of the duties and responsibilities of key personnel
- Description of system ownership with contact information of all owners
- A copy of all water rights and plan and schedule to obtain additional rights to serve planned growth

The “elements of capacity to be developed” include:

- An operations plan
- Provision of a certified operator
- Documentation of the relevant training for management and a plan for on-going training
- A capital improvement/equipment replacement plan
- A description of the budget control and accounting procedures
- A water conservation plan
- An emergency/disaster response plan
- Customer service, personnel, and record keeping policies
- A governing body education plan

The permit will contain a condition requiring the submission and approval of any missing information.

#### *B) Public Water Supply Permit: Initiating Operation*

Approval for the PWSs to initiate operation will not be issued until all “elements of capacity to be developed” listed above have been submitted, reviewed, and approved and a final construction inspection has been performed by KDHE.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, KDHE will use SNC data. KDHE will determine if the system is appearing on the SNC list because of a short-coming in the new water supply system permit application, review, and approval process; or whether the appearance on the SNC list is due to a short-coming in the system’s operation and management (e.g. failing to follow the proposed budget). Since the requirements of the water supply system permit application have not been formally adopted through the rule making process, KDHE can quickly adjust the new system approval process.

## **Kentucky**

### **I. Basis of Authority**

#### *A) Statutory Authority*

1) Section XII Kentucky Revised Statutes (KRS) 151.630 requires the Natural Resources and Environmental Protection Cabinet (the Cabinet) to administer a capacity program:

“The cabinet shall administer a system capacity program for public water systems consistent with federal law. . . ‘System capacity’ means the technical, financial, and managerial capacity to operate a public water system in compliance with the Federal Safe Drinking Water Act. . . .The cabinet may promulgate administrative regulation as necessary to administer [the program].”

<http://162.114.4.13/krs/151%2D00/chapter.htm>

2) Section XII KRS 151.634 requires new systems to demonstrate capacity:

“After October 1, 1999, new community or nontransient, noncommunity public water system, as defined by federal law, shall not be created unless they have system capacity.”

<http://162.114.4.13/krs/151%2D00/chapter.htm>

#### *B) Implementing Authority*

Section 401 KAR 8:100 of the proposed draft regulations outlines the procedures that an applicant must follow for obtaining approval to construct a water system:

“(1)...Before a supplier or potential supplier of water may enter into a financial commitment for or initiate construction of a new public water system, or increase the capacity of an existing public water system, he shall submit the preliminary plans to the cabinet...(5) Final plans and specifications...(a)...shall be prepared and submitted to the cabinet by a professional engineer.”

<http://www.lrc.state.ky.us/kar/TITLE401.HTM>

#### *C) Responsible Authorities*

The Cabinet’s Division of Water (DOW) is responsible for administering the capacity assurance program. The Public Service Commission (PSC) issues Certificates of Convenience and Necessity (CCNs) to new water utilities (i.e. a water system that is not owned by a city) that demonstrate sufficient TFM capacity.

### **II. Control Points**

#### *A) Plans Approval*

Before entering into a financial commitment or beginning construction, all new PWSs must submit preliminary plans to DOW in accordance with Kentucky's statutory requirements. The following information is required to demonstrate capacity:

#### Technical Capacity

- C The name of the applicant and owner and the location of the proposed facility
- C The proposed source of water, quantity available, and the specific location of the intake or wellhead
- C A certified laboratory's analysis of the water from the proposed source
- C An operation plan, including anticipated load, hours of operation, area served, and the name of the plant operator

#### Financial and Managerial Capacity

- C The rates the system intends to charge, or, if the system is not charging rates, how the system intends to raise sufficient revenue to operate the system
- C Identification of the cost and financing of the project
- C A list of outstanding debts and obligations the PWS may have at completion of the project
- C The median household income of the area to be served
- C An estimate of the annual cost to operate the system, and an estimate of annual treatment and monitoring costs to comply with the SDWA
- C A description of the proposed day-to-day O & M
- C An explanation of the water system's management structure

DOW may also request that the system submit further information relating to the management or financing of the system, including a business plan. DOW's engineering staff reviews the preliminary plans to ensure that systems are in compliance with DOW's *Recommended Standards* and *General Design Criteria*, which are incorporated by reference into §401 KAR 8:100. Staff with business and management experience assist the engineers, as needed, in reviewing the financial and managerial capacity of a proposed system. Before construction, the water system must also submit final plans and specifications. The final plans must be certified by a professional engineer.

If DOW finds that the system lacks technical, managerial, or financial capacity during either the preliminary plan review or the final plan review, DOW will not permit the system to begin construction. DOW instructs PWSs that lack capacity to cooperate with the appropriate water supply planning council to develop and incorporate a capacity development strategy into the county water supply plan.

#### *B) Certificate of Convenience and Necessity*

New systems that are not owned by a city are required to apply for a certification from the PSC prior to construction. Approval from the PSC is also required for acquisition or transfer of ownership of a utility in the PSC's jurisdiction. The Commission grants approval for acquisition only if the person acquiring the utility has the "financial, technical, and managerial abilities to

provide reasonable service.” Without certification from the PSC, public utilities cannot begin construction or commence providing services.

### **III. Program Evaluation**

Kentucky implemented its capacity development program for new systems in July of 1998. Kentucky intends to use the compliance status of the new systems approved after July 1998 as an indicator of the success of its program.

# **Louisiana**

## **I. Basis of Authority**

### *A) Statutory Authority*

Louisiana Regular Session Statutes §40:4(A) and 40:5 require the Louisiana Department of Health and Hospitals (DHH), Office of Public Health (OPH) to ensure that all new systems make a demonstration of capacity prior to commencement of operation:

“The State Health Officer.... shall include a requirement that all new community water systems and non-transient noncommunity water systems commencing operation after January 1, 1999, demonstrate technical, managerial, and financial capacity as defined in such rules and regulations, to comply with state drinking water regulations in effect on the date of commencement of operations.”

### *B) Implementing Authority*

1) Louisiana Administrative Code §48:V.7713 outlines the requirements a new system must meet to obtain approval to commence construction and operation:

“All new CWSs and NTNCWSs.... (a) shall be required to submit a business plan... (b) have a certified operator who holds a certificate in the appropriate class(es) for the population served... (d) must make arrangements to attend managerial training sessions ... (e) a financial audit will be conducted to determine the financial capacity of the public water system....”

2) Chapter 12 of the State Sanitary Code Section 12:002-2 requires that any new system wanting to commence operation must first submit plans and specifications.

### *C) Responsible Agencies*

OPH is the primacy agency for the SDWA in Louisiana. The OPH has jurisdiction over all matter concerning the SDWA with the exception of the Wellhead Protection and Source Water Assessment Programs, which are implemented by the Louisiana Department of Environmental Quality (DEQ). The OPH Drinking Water Revolving Loan Fund (DWRLF) staff review the financial documentation in the Capacity Program.

## **II. Control Points**

### *A) Permit to Construct*

New systems must submit, and OPH must approve:

- Plans and specifications
- A business plan that
  - Identifies the water supply needs of the area



- Identifies alternatives to address those needs
- Evaluates the alternatives
- Recommends a specific alternative
- Identifies how the organization which will implement the alternative will be structured and operated
- Demonstrates that the operation of the proposed alternative will be financially viable for at least 5 years.

OPH will issue a permit to construct once it has been determined that the plans and specifications for a new system are in conformity with all requirements, the business plan has been approved, and DWRLF has conducted a financial audit.

### *C) Approval for Operation*

Systems must secure written approval to commence operation from OPH. OPH will issue approval after OPH is satisfied with the TMF capabilities of the system.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, OPH will review updated business plans; conduct on-site inspections (sanitary survey) one year after commencement of operation; review operator certification and management training; conduct annual reviews and compliance rate monitoring using a database program; and evaluate monthly reports from Louisiana Rural Water Association (LRWA), technical assistance providers, circuit riders, and stakeholders.

# Maine

## I. Basis of Authority

### A) Statutory Authority

22 M.R.S.A. §2612-A gives the Department of Human Services (DHS) specific authority to ensure new system capacity:

“The commissioner shall adopt rules to ensure that all new community water systems and new nontransient, noncommunity water systems commencing operation after October 1, 1999, demonstrate technical, managerial, and financial capacity...”

<http://janus.state.me.us/legis/statutes/22/title22sec2612.html>

### B) Implementing Authority

Maine Drinking Water Rules, 10-144 Chapter 231, §3.E requires all new systems to demonstrate capacity prior to commencing operation:

“All new community water systems and new non-transient, noncommunity water systems commencing operation after October 1, 1999, must demonstrate technical, managerial, and financial capacity with respect to each national primary drinking water regulation in effect, or likely to be in effect, on the date of commencement of operations.”

<ftp://ftp.state.me.us/pub/sos/cec/rcn/apa/10/144/144c231.doc>

### C) Responsible Agencies

DHS’s Drinking Water Program will implement Maine’s capacity development program. DHS has advised the Public Utilities Commission, the Maine Manufactured Housing Board, and the Department of Education as to the scope of the new system capacity program. These agencies will thus be attuned to DHS’s capacity demonstration requirements in their own reviews of proposed systems.

## II. Control Points

### A) General Operations Permit

New systems are required to secure a general operations permit before commencing operations. Required documentation varies depending on whether the source of supply is a ground water or surface water source. Generally, proposed systems must submit:

#### Technical Capacity

- C Source and infrastructure plans and specifications
- C Information on potential contamination sources
- C Water quality and quantity data

- C Demonstration of compliance with State operator certification requirements

Managerial Capacity

- C A management plan identifying ownership, contractors, responsibilities of staff members, decision-making processes, record keeping procedures, and other relevant information
- C Training and education of the superintendent, general manager, governing board, commission, and selectmen

Financial Capacity

- C A water system financial plan, including a 3-year budget, a description of resources and reserve accounts, and identification of financial decision-making procedures. (Systems may use rate case filings from Maine's Public Utilities Commission)

DHS will not issue a general operation permit until new water system applicants demonstrate sufficient capacity to operate their systems in compliance with applicable State and federal regulations on a sustained basis.

**III. Program Evaluation**

During the first year of Maine's new system capacity demonstration program, the following information will be monitored: the number of new system applicants; source and system data; completeness of submissions/requests for additional information; turnaround time for capacity review; capacity review findings; compliance rates; and, applicant feedback, observations, comments, etc. DHS will revise the new system capacity development program as necessary.

# Maryland

## I. Basis of Authority

### A) Statutory Authority

Maryland Annotated Code, Environment Article §9-417 requires new systems to demonstrate TMF capacity to the Maryland Department of Environment (MDE) prior to commencing operation:

“Each new community and nontransient noncommunity water supply system that commences operation after October 1, 1999, shall demonstrate to the Department that it has technical, managerial, and financial capacity to operate the proposed water system...”

<http://mgasearch.state.md.us/>

### B) Implementing Authority

The Code of Maryland Regulations (COMAR) §26.04.01.36(C) requires new water supplies to demonstrate TMF capacity before MDE will issue a permit:

“Before a permit may be issued... any new major water supply system permit applicant shall demonstrate that it has the technical, financial, and managerial capacity to operate the system as required by COMAR §26.04.01.36.”

<http://209.15.49.5/newsearch.htm>

### C) Responsible Agency

The MDE has been delegated the authority to develop, implement, and enforce a program to ensure capacity in new CWSs and new NTNCWSs.

## II. Control Points

### A) Permit to Construct

Prior to commencing construction, a water system must secure a permit to construct from MDE. The permit process requires systems to submit:

- A Technical Plan that includes the submission of plans and specifications prepared by a Maryland certified Professional Engineer, and a description of water sources and treatment capabilities
- A Managerial Plan that includes identification of a person(s) responsible for management of the system and operators certified by the Maryland Board of Waterworks; the submission of standard operating procedures; and, an Emergency Plan of Operation
- A Financial Management Plan that includes an identification of O & M costs, future capital improvements, revenues, rate structure, potential emergency capital expenses and sources of funding.

### *B) As-Constructed Plans*

After completion of construction, systems are required to submit a copy of as-built plans or a certification satisfactory to the Department that the work was built in accordance with the original plans approved by the Department.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, the MDE will track new system's monitoring compliance rates using the SDWIS database; and, annually review the construction permit application records to ensure that all requirements of the capacity development plan are being implemented.

## **Massachusetts**

### **I. Basis of Authority**

#### *A) Statutory Authority*

Massachusetts General Law (MGL).c.111, s.160 gives the Massachusetts Department of Environmental Protection (DEP) broad authority to ensure the delivery of safe water to all PWS consumers:

“The department...may make rules and regulations and issue such orders as...may be necessary to ...ensure the delivery of a fit and pure water supply to all consumers.”

<http://www.magnet.state.ma.us/legis/laws/mgl/111-160.htm>

#### *B) Implementing Authority*

Section 310 Code of Massachusetts 22.04 requires systems to secure written approval for construction and operation through the demonstration of TMF capacity:

“No person shall construct, substantially modify, or operate a public water system without the prior written approval of the Department. The Department will not grant such approval unless:...(c) the person(s) who will own and operate the system demonstrates...it has the technical, managerial, and financial resources to operate and maintain the system in a reliable manner and provide continuous adequate service to consumers.”

#### *C) Responsible Agency*

DEP is responsible for implementing and enforcing the State’s drinking water program including the program to ensure capacity in new CWSs and new NTNCWSs.

### **II. Control Points**

#### *A) Source Approval Process*

New systems must apply to DEP for source approval. The system must secure a series of siting, pumping, and withdrawal permits and submit a Water Supply Business Plan (WSBP) to DEP. DEP uses the information provided in the WSBP to evaluate a system’s TMF capacity. The WSBP must address:

- C Administration including ownership and management, system name and background, and management structure and policies
- C Basic planning such as water use, projected land use, future population, and water demand
- C Source, treatment, storage, distribution, and possible interconnections to other PWSs
- C Source water protection

- C O & M including evidence of a certified operator, system operations and control, monitoring program, emergency response plan, cross-connection control program, water conservation plan, customer complaint response program, and record keeping and reporting
- C Finances including rate structure, debt service, operating expenses, revenues, and a capital improvement plan

DEP's regional capacity development staff person reviews and comments on the system's proposed WSBP and may request more information. If the WSBP meets all applicable requirements, DEP will review the more specific technical information required for each of the source approval permits. Once DEP has issued the system a complete set of source approval permits, the system may begin construction.

### **III. Program Evaluation**

DEP's will begin its annual evaluation of its capacity development program for new systems by comparing the number of new systems that obtain DEP approval to the total number of systems that applied for approval. DEP will verify individual systems' capacity through its Comprehensive Compliance Evaluation (CCE ) (sanitary survey) inspection and enforcement process.

# Michigan

## I. Basis of Authority

### A) Statutory Authority

The Michigan Compiled Law (Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399)) §325.1003b allows the department to conduct a capacity assessment at a community supply, a nontransient noncommunity water supply, or a public water supply applying to the Department of Environmental Quality (MDEQ) for assistance. The Michigan Safe Drinking Water Act, Act 399, §325.325.1004 requires the Michigan Department of Environmental Quality (MDEQ) to conduct capacity assessments:

“(2) The department shall conduct a capacity assessment for a proposed community supply or nontransient noncommunity water supply and determine if the system has the technical, financial, and managerial capacity to meet all requirements of this act and the rules promulgated under this act, on the date of commencement of operations... The Department may deny a permit...if the capacity assessment shows that the proposed system does not have adequate technical, financial or managerial capacity..”

<http://www.deq.state.mi.us/dwr/FOS/Topics%20&%20Documents/Rules%20&%20Regulations/Act%20399/act%20399.html#325.1004>

### B) Implementing Authority

Michigan Administrative Code (MAC) R 325.11305 describes the plans and specification requirements and allows MDEQ to request additional information.

“If the department determines that plans and specification or other pertinent information are incomplete or inadequate, it. . . may request the submission of revised plans and specifications or other pertinent information.”

<http://www.state.mi.us/orr/>

### C) Responsible Agency

MDEQ implements and enforces the program for ensuring capacity in new CWSs and new NTNCWSs in the State of Michigan. The MDEQ has delegated authority as authorized in MAC R325.11305(3) to the 43 local health departments across the State to conduct the drinking water program including capacity development for noncommunity water systems in Michigan’s 83 counties.



## II. Control Points

### A) Construction Permit

Before commencing operation, a system must submit a capacity plan. A capacity plan may include plans and specifications, a financial plan with a 5-year budget, and an operations plan that demonstrates adequate TMF capacity. Proposed systems<sup>8</sup> are required to secure a construction permit from MDEQ or from the local health department for noncommunity water systems. Michigan issues construction permits after approval of plans and specifications, but allows systems to begin construction before submitting the financial plan or the operations plan; however, these two components must be submitted at or before a final inspection. Approval to commence operation is given within 30 days of satisfactory final inspection and approval of financial and operations plans.

The Capacity Plan must include:

#### Technical Capacity (must submit prior to receiving a permit to construct)

- A project summary
- Plans and specifications
- Design calculations
- Chemical analyses
- A site plan
- A study of hydrogeologic conditions for groundwater sources or a sanitary survey (Source Water Quality Report)
- An analysis of reliability

#### Managerial Capacity (must submit at or prior to final inspection)

- A description of the ownership and its organization
- A commitment to complete a contingency plan
- A description of the bacteriological monitoring program (sampling site plan)
- An acknowledgment of monitoring costs and requirements
- A plan for providing legal doctrines, including policies, ordinances, rules, resolutions or practices
- A cross connection control program
- A copy of standard specifications

#### Financial Capacity

- An acknowledgment of the annual water supply fee
- An annual budget plan for a minimum of 5 years
- Documentation of funding
- Comparison of alternatives to developing the new system

---

<sup>8</sup>MDEQ has developed policies and procedures regarding “New System Capacity Assessment” for both CWSs and NTNCWSs. A proposed NTNCWS has to secure a construction permit and final approval but can submit fewer documents to demonstrate adequate TMF capacity.

Privately owned systems must also obtain a resolution from a local government unit indicating their refusal to own or operate the proposed system, submit documentation of a cash escrow fund for emergency repairs, and obtain all necessary easements.

When MDEQ has reviewed all of the information submitted to demonstrate adequate technical capacity, and is satisfied with the proposal, the Department may issue a construction permit. Managerial and financial capacity information may be submitted with the plans and specifications, or may be completed and compiled during construction and submitted at final inspection prior to receiving approval to commence operation. MDEQ can deny a permit application or request additional information if the plans and specifications or the Capacity Plan are incomplete or inadequate.

#### *B) Final Inspection and Approval to Commence Operation*

Prior to commencing operation, systems must schedule a Final Inspection with MDEQ. The Final Inspection consists of:

- An on-site inspection of facilities to see if they have been constructed in accordance with the approved plans and specifications
- A review of any leases or easements necessary for the operation and maintenance of the system
- A review of additional information that was not submitted with the plans and specifications, including an operations plan (sampling site plan, a contingency plan, cross connection control program, etc.), and a five-year budget plan

The system is prohibited from operating until MDEQ has conducted the Final Inspection and has issued an approval to commence operation.

### **III. Program Evaluation**

Success of the capacity development program is measure by compliance with Act 399. Before a system commences operation, MDEQ tracks the submission of documents and information needed to demonstrate TMF capacity in a New System Tracking Database. After the new system commences operation, compliance with Act 399 is tracked in various compliance information systems. Comparing compliance rates of new systems to systems that began operations before October 1, 1999 will be one indicator of the success of capacity development.

# Minnesota

## I. Basis of Authority

### A) Statutory Authority

Minnesota Statutes §144.383 gives the Department of Health (DOH) specific authority to approve documentation demonstrating capacity in proposed CWSs and NTNCWSs:

“In order to insure safe drinking water in all public water supplies, the commissioner has the following powers: (a) To approve the site, design, and construction and alteration of all public water supplies and, for community and nontransient noncommunity water systems... to approve documentation that demonstrates the technical, managerial, and financial capacity of those systems to comply with rules adopted under this section;...”

<http://www.revisor.leg.state.mn.us/stats/144/383.html>

### B) Implementing Authority

Minnesota Rule 4720.0012 Subpart 1 prohibits the operation of water systems until the DOH has approved documentation demonstrating TMF capacity:

“New water systems shall not commence operation until the commissioner approves plans and specifications ... and approves documentation submitted under this part that demonstrates a system’s technical, managerial, and financial capacities.”

<http://www.revisor.leg.state.mn.us/arule/4720/0012.html>

### C) Responsible Agency

The DOH implements the capacity development program for the State of Minnesota. Responsibility is assigned to the Drinking Water Protection Section.

NTNCWSs proposing to use groundwater as a source of supply are not required to submit engineering plans and specifications as part of the plan approval process. Instead, DOH requires these systems to submit well inspection reports to the Well Management Section (WM) of DOH. The Drinking Water Protection (DWP) and the Well Management (WM) sections have an Memorandum of Agreement (MOA) by which DWP receives inspection reports from WM for all new wells in Minnesota that serve public water systems.

## **II. Control Points**

### *A) Plan Approval*

New systems must secure Plan Approval before any construction, installation, alteration, extension, or use of a new water system or existing system. Documentation required for the Plan Approval includes:

#### Technical Capacity

- Plans and specifications (except NCWSs)
- Plumbing plans and specifications review
- A well inspection report
- Source water/wellhead protection plans
- A well construction report

#### Managerial Capacity

- Identification of system owner and operator
- A certified operator agreement
- Contact information for the system owner, manager, and chief executive officer

#### Financial Capacity

- Financial certification of ability to meet costs
- Certification by the owner, chief financial officer, or chief executive officer that actual and potential costs of operating and maintaining a PWS have been reviewed

### *B) Exception for NTNCWSs*

NTNCWSs proposing to use groundwater as a source of supply are not required to submit engineering plans and specifications as part of the plan approval process. Instead, DOH requires these systems to submit well inspection reports to the Well Management Section (WM) of DOH. The Drinking Water Protection (DWP) and the Well Management (WM) sections have an Memorandum of Agreement (MOA) by which DWP receives inspection reports from WM for all new wells in Minnesota that serve public water systems.

## **III. Program Evaluation**

Minnesota will evaluate their program for ensuring capacity in new systems through the Minnesota Drinking Water Inventory System (MDWIS) database. MDWIS tracks general system, source, and facility information, microbiological data, turbidity/enhanced surface water treatment rule information, violations, chemical data, lead and copper data, laboratory certification information, and operator certification. MDWIS is linked to databases in DOH's Source Water Protection and Engineering Information Units, and can be queried for information on source water assessment, wellhead protection, date when the capacity review was completed, capacity review findings, construction inspection date and findings, date of approval issue, and

date of system start-up. To evaluate success, the database will be queried for compliance. If any violations occur, DOH will consider changes to the new system capacity program.

# Mississippi

## I. Basis of Authority

### A) Statutory Authority

Mississippi Code Section 41-26-8(2) prohibits the construction of a CWS or NTNCWS until the Mississippi State Department of Health (MSDH) approves the system's plans and receives certification of the systems' managerial and financial capacity from the Public Utilities Staff (PUS):

“(a) No person shall construct or change any community public water system or non-transient non-community public water system until the plans for that construction or change have been submitted to and approved by the director...(f) ...the executive director of the public utilities staff shall certify in writing to the director the financial and managerial viability of the system...The director [of MSDH] shall not approve the construction until that certification is received.”

### B) Implementing Authority

The Mississippi State Board of Health, Environmental Regulations.

### C) Responsible Agencies

MSDH retains the authority to implement and enforce the program for ensuring capacity in new CWSs and new NTNCWSs. Before MSDH can approve a new system's construction, the director must receive certification from the PUS that the system has managerial and financial capacity.

## II. Control Points

### 1) Certificate of Public Convenience and Necessity

Prior to construction, new water systems must submit a “Petition for CPCN to Provide Initial Water Service” to PUS. This document consists of 11 pages of information detailing the system's managerial and financial capacity, including an Income, Expense, and Cash Flow form; a balance sheet; a Sources and Uses of Funds form; and a Cost Justification for Connection Fees form.

If PUS determines that the system has adequate managerial and financial capacity, the director certifies this in writing to the director of the MSDH. MSDH cannot issue a construction approval for a new system until it has received this certification, and thus, systems without managerial or financial capacity will not be permitted to begin construction.

### 2) Construction Approval

Systems are required to submit plans and specifications and an O & M plan. The system's technical specifications for sources, treatment facilities, storage facilities, and distribution systems must adhere to MSDH's *Minimum Engineering Design Guidelines for Public Water Systems*. If MDSH staff engineers are satisfied, and PUS has issued a CPCN, MDSH will issue a construction approval.

### **III. Program Evaluation**

MSDH tracks the compliance rate of the CWSs and NTNCWSs that began operation after August 8, 1998. This rate is compared to the compliance rate of the same types of systems permitted prior to August 8, 1998.

# Missouri

## I. Basis of Authority

### A) Statutory Authority

Missouri Revised Statutes §640.115.3 requires systems to show a continuing operating authority that has TMF capacity in order to receive a Construction Authorization from the Department of Natural Resources (DNR) Safe Drinking Water Commission (SDWC):

“Permit applicants shall show, as part of their application, that permanent organization exists which will serve as the continuing operating authority for the management, operation, replacement, maintenance and modernization of the facility. Such continuing operating authority for all community water systems and nontransient, noncommunity water systems commencing operation after October 1, 1999, shall be required to have and maintain the managerial, technical, and financial capacity.”

<http://www.moga.state.mo.us/statutes/C600-699/6400115.htm>

### B) Implementing Authority

The ‘Rules of the Department of Natural Resources Public Drinking Water Program’ (§10 CSR 60-3.030(2)(b)) establish minimum TMF capacity requirements and prohibit the construction of systems without written authorization from DNR/SDWC:

“Public water systems commencing operation after October 1, 1999, shall show as part of their application that the public water system will meet the minimum technical, managerial, and financial requirements of this rule. The department will not issue a written construction authorization until it determines that the proposed water system will meet the requirements of this rule.”

<http://mosl.sos.state.mo.us/csr/10csr/10c60-3.pdf>

### C) Responsible Agencies

The Missouri DNR/SDWC has primary implementation, enforcement, and administrative jurisdiction over all matters concerning PWSs. The Division of Geology and Land Survey (DGLS) implements and enforces well driller regulations and notifies SDWC of all new well construction.



## **II. Control Points**

### *A) Construction Authorization*

A system must secure a Construction Authorization from MDNR prior to construction. The systems must submit:

- An application
- Engineering report approval
- Plans and Specifications approval
- Documentation showing compliance with Continuing Operating Authority (COA) and TMF requirements, and the Well Driller regulations

MDNR will conduct an on-site survey and the Division of Geology will evaluate all new wells.

TMF requirements consist of the following items, which are reviewed by the MDNR before issuing a Construction Authorization:

#### Technical Capacity

- Description of proposed service areas
- Extent of the water system, including maps, provisions for extending system, and appraisal of future service requirements
- Assessment of alternatives to construction
- Description of proposed source quality, capacity, protection, and production
- Description of treatment process proposal and waste disposal
- Description of project site, including considerations, potential pollution sources, and location with respect to other establishments
- Water use data
- Future extensions for needs
- Flow requirements
- Proper operator certification
- The existence of a permanent organization for the continuous operation, management, and maintenance of the facility
- Updated distribution map
- Planning for future regulatory impacts

#### Managerial Capacity

- Organizational charts
- Designated customer complaint person
- Written rate structure and service fees
- Public meetings with advanced notice to customers
- Designated compliance person
- Planning for future regulatory impacts

#### Financial Capacity

- Standard accounting principles and practices

- System for fee collection
- Annual budget with revenues and expenditures
- 5-year budget and capital plan, with future regulatory impacts, and estimated annual cost of operation
- Annual revenues must cover costs
- Operating reserve = 1/10 of annual O & M budget
- Emergency equipment replacement reserve equal or greater than the most expensive mechanical equipment item
- Debt reserve equal to or greater than that required in bonding agreement
- Planning for future regulatory impacts

### *B) Permit to Dispense Water to the Public*

A Permit to Dispense Water to the Public is required before a system can begin operation. The system must submit the following items to receive this permit:

- Application for Permit to Dispense
- Completed TMF Assessment Tool (re-evaluates the capacity items that were reviewed during the Authorization to Construct phase) and proof of compliance with TMF requirements
- Emergency operating plan
- Proof of ability to meet applicable Maximum Contaminant Levels (MCLs)
- Provide reliable water system operation
- Proof of COA and proof of compliance with COA requirements
- Final Construction Approval, including a letter signed by professional engineer when construction is completed, certifying that all activity was carried out in accordance with approved plans and specifications

With the issuance of a Permit to Dispense Water to the Public, a system may begin operation.

### **III. Program Evaluation**

DNR will incorporate the compliance status of new CWSs and new NTNCWSs into an already existing electronic tracking system. The system will track inspection dates, compliance status, and the number and type of violations. From this system and inspection reports, DNR will determine the reason for a system's non-compliance and to the extent practicable and necessary, will make changes to the capacity development program.

# Montana

## I. Basis of Authority

### A) Statutory Authority

Montana Code Annotated (MCA) §75-6-103 gives the Board of Environmental Review (BER) broad statutory authority to supervise all waters used as PWSs:

“(1) The board has general supervision over all State waters that are directly or indirectly being used by a person for a public water supply system or domestic purposes or as a source of ice. (2) The board shall, subject to the provisions of §75-6-103, adopt rules and standards concerning: ... (e) the siting, construction, operation, and modification of a public water supply system ...; (f) the review of financial viability of a proposed public water supply system ..., as necessary to ensure the capability of the system to meet the requirements of this part; ... (k) any other requirement necessary for the protection of public health as described in this part.”

[http://statedocs.msl.state.mt.us/cgi-bin/om\\_isapi.dll?clientID=510&infobase=mca\\_99.nfo&softpage=Browse\\_Frame\\_Pg](http://statedocs.msl.state.mt.us/cgi-bin/om_isapi.dll?clientID=510&infobase=mca_99.nfo&softpage=Browse_Frame_Pg)

### B) Implementing Authority

Administrative Rules of Montana (ARM) §17.38.101(4) prohibits construction of PWSs without Montana Department of Environmental Quality (MDEQ) approval:

“Before commencing the construction, alteration or extension of a public water supply system or wastewater system, the applicant shall submit a design report along with the necessary plans and specifications for the system to the department or a delegated division of local government for its review and written approval...”

<http://www.deq.state.mt.us/dir/legal/title17.htm>

Montana uses DEQs, or design circulars, to provide specific standards for new system design criteria, including capacity. These circulars are referenced by ARM Title 17, Chapter 38, Sub-Chapter 1. DEQ 1 includes the standards for CWSs and DEQ 3 includes the standards for NCWSs.

### C) Responsible Agencies

The BER is authorized to adopt rules and standards for PWSs in the state. The MDEQ acts as the administrative arm of the BER and implements and enforces the rules that the Board adopts.

## II. Control Points

### A) Design Report Approval

Systems must submit, and MDEQ must approve, plans and specifications and a Design Report before construction of the new system may begin. The Design Report must include:

#### Managerial Capacity:

- Documentation of an owner that is responsible for ownership, O & M, and perpetuation of the system
- Organizational charts
- Plans for hiring a certified operator
- System or plan for maintaining records
- Copies of legal documents (such as By-Laws, Articles of Incorporation, etc.)
- Copies of documents describing responsibilities and duties
- Policies on addressing problems such as customer complaints or violations
- An O & M Manual explaining procedures, staffing requirements, safety and emergency program documentation, and manufacturer's manuals

#### Financial Capacity:

- 5 year system budget
- O & M rates and capital improvement/replacement rates
- Documentation that customers will be metered
- Development fee
- Description of owner's access to capital
- Budgetary controls and audit schedule
- Financial plan showing how improvements will follow submitted plans and specifications

To evaluate capacity, MDEQ will consider whether the system:

- Maintains compliance with drinking water standards
- Allows effective operation of the system in accordance with approved plans and specifications
- Supplies adequate water, both in terms of quantity and quality
- Complies with operating conditions presented in the engineer's report
- Efficient operation of the system
- Adequate control of and accountability for the system by the owner, manager, and operator
- Adequate resources and accountability for regulatory compliance by the owner, manager, and operator
- Dissemination of appropriate information to all customers and regulatory agencies
- Revenues match or exceed expenses
- Adequate funds will be maintained for replacement of equipment
- Appropriate reserve accounts will be maintained
- The budget will be controlled, preferably by audits every 3 to 5 years
- The 5-year cash flow is sufficient to properly operate the system

- All proposed improvements will be constructed completely and in accordance with the approved plans and specifications

If ownership or the plans and specifications change after approval, the MDEQ must be notified. MDEQ may set conditions of approval. Plans and Specifications must be prepared by a professional engineer, and must be designed to protect public health, in compliance with the Montana Public Water Supplies, Distribution and Treatment Act, Title 75 (6) and ARM Title 17 (38)(1-6).

#### *B) Letter of Accordance*

Before a new system can begin operation, applicants must send a letter to MDEQ saying that the system was constructed in accordance with approved plans and specifications submitted with the Design Report. As-built drawings must be sent to the MDEQ within 90 days of commencement of operation.

### **III. Program Evaluation**

MDEQ will track new water systems throughout the approval process and during operation. An existing database can track contact information and characteristics of a system as well as sampling results and historical information. The database will also include records of certification and assessments (i.e. source and groundwater assessments). The database will be routinely queried to ensure that each system has met all capacity development requirements.

# Nebraska

## I. Basis of Authority

### A) Statutory Authority

Nebraska Statute §71-5305.01 delegates specific authority to the Department of Health and Human Services Regulation and Licensure Division (DHH), to implement rules and regulations that will ensure all new CWSs and NTNCWSs demonstrate TMF capacity as defined by the Nebraska Safe Drinking Water Act:

“All new community water systems and new nontransient noncommunity water systems commencing operation after October 1, 1999, shall demonstrate technical, managerial, and financial capacity to operate under the Nebraska Safe Drinking Water Act. The Director of Regulation and Licensure may adopt and promulgate rules and regulations to determine demonstration requirements for technical, managerial, and financial capacity of community water systems.”

<http://statutes.unicam.state.ne.us/lpBin20/lpext.dll?f=templates&fn=main-j.htm&2.0>

### B) Implementing Authority

Nebraska Administrative Code §179 NAC 2(015.04D) requires all new CWSs and NTNCWSs to demonstrate technical, financial, and managerial capacity prior to obtaining a permit to operate from DHH:

“New public water systems applying for a permit to operate the system after October 1, 1999, shall show, as part of their application that the public water supply system will meet the minimum technical, managerial, and financial capacity requirements of this rule. No permit to operate the system will be issued until the requirements of this section and section 009, Permit for Operating a Public Water System, are met.”

<http://www.hhs.state.ne.us/reg/t179.htm>

### C) Responsible Agencies

The Nebraska DHH has primary implementation, enforcement, and administrative authority over all matters concerning PWSs.

## II. Control Points

### A) Approval of Plans and Specifications to Construct a New Water System

Before construction begins, a system must first submit plans and specifications to DHH. Plans and specifications must include a demonstration of TMF capacity. The system must:

C Demonstrate conformance with siting, design, and construction standards

- C Arrange for the services of a certified operator
- C Provide a current water system map
- C Install service meters on each service connection
- C Estimate construction, and O & M costs
- C Describe water rate or revenue structures
- C Identify the legal owner of the system and any plans for transfer of ownership
- C Provide the name, address, and telephone number of the person(s), other than the operator, designated and authorized to respond to compliance issues
- C Provide the name, address, and phone number of the system operator
- C Describe staffing and the chain of command of the person(s) responsible for the system's interaction with customers, regulators, and others

*B) Permit to Operate the System*

Upon completion of construction, the system must submit an application for a Permit to Operate. While not specified in the capacity development requirements, all CWSs and NTNCWSs are required to have emergency operating procedures and O & M procedures. DHH will perform a final inspection and issue a Permit if all the requirements of technical, managerial, and financial capacity and emergency operating and O & M procedures have been met.

**III. Program Evaluation**

DHH will track the effectiveness of the program over a period of years to determine if the indicators of capacity, used in the Plan Approval and Permit to Operated processes, are in fact reliable predictors of a system's ability to comply. DHH will examine as many factors as possible to develop a sound assessment of the program and to make appropriate changes. The Department will also use SDWIS to track the compliance status of the system. The current compliance rate will be compared to previous rates to determine if the capacity requirements are effective.

## **Nevada**

### **I. Basis of Authority**

#### *A) Statutory Authority*

17 Nevada Revised Statutes (NRS) 445A.860 gives the State Board of Health specific authority to adopt regulations to ensure capacity in new water systems:

“The state board of health:...4. May adopt such other regulations as may be necessary to ensure that a community water system or nontransient water system that commences operation on or after October 1, 1999, demonstrates the technical capability, managerial capability and financial capability to comply with 40 C.F.R. Part 141.”

[http://www.leg.state.nv.us/70th/Bills/AB/AB134\\_EN.html](http://www.leg.state.nv.us/70th/Bills/AB/AB134_EN.html)

#### *B) Implementing Authority*

1) Chapter 445A Nevada Administrative Code (NAC) Sec. 13.2 requires the State Health Division to approve a plan for a new system prior to issuing the system an operating permit:

“The health division shall not issue a permit to a supplier of water to operate a community water system or nontransient water system...unless it has approved a plan for the system pursuant to the provisions of sections 2 to 18, inclusive of this regulation.”

2) Chapter 445A NAC Sec. 14 outlines what is required to be included in the plan:

“A plan...must include:...2. An analysis of the managerial capability of the system...4. An analysis of the technical capability of the system...8. A demonstration of financial capability of the system.”

<http://www.leg.state.nv.us/NAC/nac-445A.html>

#### *C) Responsible Authorities*

The Bureau of Health Protection Services (BHPS) of the State Health Division is solely responsible for administering, implementing, and enforcing, the program for ensuring capacity in new CWSs and new NTNCWSs.

### **II. Control Points**

#### *A) Operating Permit*

New systems may not begin operating until they have received an operating permit from BHPS. Applicants must submit:

#### Technical Capacity



- C Standards for the design, construction, operation, and maintenance of the system that comply with the provisions of NAC 445A
- C Source water quality data
- C Description and analysis of the inventory of the system
- C Water conservation plan
- C Estimated amount of water required for the system for 5 years after operation begins
- C Demonstration of the ownership or right to appropriate the estimated amount of water
- C Effect if a nonresidential user decides not to continue to use the services of the system
- C Plan for responding to any shortage of water that may occur within 5 years

#### Managerial Capacity

- C A legal description of the proposed area of service for the system
- C Cross-connection control program
- C Emergency response plan
- C O & M manual
- C Ownership and operator information
- C Operator classification
- C Organization, bylaws, and policies of the system
- C Billing and customer correspondence information
- C Description of employee responsibilities, including regulatory responsibilities
- C Plan to operate the system if it is declared bankrupt or is placed in receivership

#### Financial Capacity

- C A program of capital improvements for the system, including a schedule, a priority ranking, and the source of money or financing required for each of the projects
- C 5-year operating budget that includes a demonstration of the ability of the system to expend money for emergency improvements, capital improvements, and normal O & M of the system
- C Evaluation of rate structure and connection fees
- C Evaluation of total cost of providing service to the customers
- C Evaluation of the manner in which the total cost will be recovered
- C Evaluation of the stability of the cash flow of the system

Privately owned systems also need local government approval to operate. When BHPS has reviewed and approved the above information and all permit application and fee requirements have been met, BHPS will issue the permit to operate.

### **III. Program Evaluation**

Nevada will evaluate the implementation and ongoing effectiveness of its new system capacity development program by tracking the number of new PWS permits processed with the number and type of compliance issues that develop.

## **New Hampshire**

### **I. Basis of Authority**

#### *A) Statutory Authority*

New Hampshire Revised Statutes Annotated (RSA) §485:3 authorizes the Commissioner of the Department of Environmental Services (DES) to adopt rules to ensure the long-term viability of new systems:

“The commissioner may adopt rules to ensure long-term viability of public drinking water systems as required by ...SDWA.”

<http://199.92.250.14/rsa/50/INDEX.HTM#Chapter 485>

#### *B) Implementing Authority*

Env-Ws §370.04 requires systems to meet capacity requirements before DES will issue an approval:

“A community water system and nontransient noncommunity public water system shall meet the requirements of Env-Ws 371 [capacity requirements described below] before such system obtains design approval.”

<http://www.state.nh.us/gencourt/ols/rules/env-ws.html>

#### *C) Responsible Agency*

The DES Water Supply Engineering Bureau (WSEB) implements New Hampshire’s program for ensuring capacity in new CWSs and new NTNCWSs.

### **II. Control Points**

#### *A) Approval to Construct*

A system cannot begin construction without obtaining an Approval to Construct from DES. The Approval process has a number of steps including:

- C Conceptual approval. Systems are required to submit documentation showing an intent to design and construct a PWS in a particular location for a particular type of use. DES uses the conceptual approval process to prevent the creation of stand-alone systems if another alternative water supply exists.
- C Approval of a Preliminary Business Plan including managerial and financial information:
  - C Expected costs, including those for capital repayment and SDWA compliance
  - C Water system ownership
  - C A method for assuring payment for water service
  - C Procedures for ensuring compliance with SDWA

- C A method for maintaining customer connection to the PWS
- C Compliance with operator certification requirements
- C Organizational rules, staff responsibilities, and an organizational chart
- C An emergency response plan
- C Expected revenues
- C A proposed fee schedule
- C Construction costs and other financial information, including a detailed budget
- C The useful life of facilities and equipment
- C Five-year financial projection
- C Source approval
- C Detailed Engineering report

Systems submit both a preliminary Business Plan and Engineering report. Once the system completes source development, the system submits any revisions to the Business Plan including updated treatment and distribution costs. If the system has sufficient managerial and financial capacity, DES will re-evaluate the system's technical capacity by reviewing its final engineering design. DES will issue Construction Approval if the system has demonstrated adequate TMF capacity.

### *C) Operational Approval*

DES staff conduct field inspections before granting approvals to operate. Approval is contingent upon the receipt of as-built drawings and a finalized business plan. The final business plan must, among other things, integrate final construction costs into the water rate projections.

### **III. Program Evaluation**

To evaluate the program, DES will compare actual capital and operational costs with estimates given in the system's five year business plan; interview water system owners for feedback; and track compliance of new systems that have undergone the capacity review. DES plans to use the results of these inquiries to strengthen their program.

## **New Jersey**

### **I. Basis of Authority**

#### *A) Statutory Authority*

Broad statutory authority for the New Jersey Department of Environmental Protection (NJDEP) to assure the capacity of all new PWSs is found in New Jersey Statutes Annotated NJSA §58:12A-4.c.(5)(b):

“The Commissioner shall adopt and implement adequate procedures, promulgate appropriate rules and regulations, and issue such orders as are necessary . . . [to] assure that all new public water systems have adequate technical, managerial and financial capacity to comply with the provisions of the “Safe Drinking Water Act,” P.L.1977, c.224 (C.58:12A-1 et seq.)”

#### *B) Implementing Authority*

New Jersey Administrative Code (NJAC)7:10-11.5 requires systems to secure a permit from NJDEP prior to construction and to comply with the TMF capacity requirements:

“No person shall construct or modify a public community water system prior to obtaining a permit from the Department pursuant to this section....1. All applications for a permit to construct or operate a new public community water system shall comply with the requirements set forth at N.J.A.C. 7:10-13.3 [demonstration of technical capacity for community water systems] and 13.4 [demonstration of managerial and financial capacity for community water systems].”

#### *C) Responsible Agencies*

NJDEP is the lead agency responsible for implementing the regulations and policies governing capacity development in New Jersey. NJAC 7:10-13.7 requires NJDEP to consult with the Division of Local Government Services and the Bureau of Public Utilities (regulates county, State, and federal facilities) when making TMF capacity determinations. NTNCWSs must obtain a construction certification from the County Environmental Health Act (CEHA) agency or local health department in non-CEHA delegated counties.

### **II. Control Points**

#### *A) Construction permit*

In order to receive a construction permit, CWSs must submit, and NJDEP must approve:

- C A complete description of the sources, treatment, storage, and distribution infrastructure of the system
- C Design plan and specifications
- C Proof and a description of any land leases or easements
- C An infrastructure replacement plan

- C Description of compliance with operator certification requirements
- C Evaluation of alternatives to developing a stand-alone system
- C Approved source water quality
- C Water pumping test results
- C Cross-connection control plan

NTNCWSs and Governmentally owned facilities have similar requirements.

### *B) Operating permit*

No person shall commence operation of a new CWS prior to obtaining a permit to operate from NJDEP. Systems must submit a written application for a permit and include a description of the as-built water system. Systems must also submit financial and managerial plans including:

- C Information concerning the organizational structure of the system
- C An emergency management plan
- C A description of system policies that define the conditions under which water service is provided.
- C A financial plan including:
  - C A 5-year budget that includes revenues, operating expenses, reserves, and capital improvements
  - C Identification of reserve accounts for emergency funding and equipment replacement
  - C A capital improvement plan
  - C A description of the budget and expenditure control procedures
  - C Certification that the system is not in arrears on existing debt
  - C A current credit report

### **III. Program Evaluation**

New Jersey will continuously evaluate its program using data from the State permit applications database and SDWA compliance data. The State will expand an existing database that contains information on all permit applications received and the determinations on each application, to include capacity development determinations. In addition, existing databases containing information on PWS SDWA compliance will be studied for compliance trends in new water systems before and after the implementation of a program to ensure capacity in new systems.

## **New Mexico**

### **I. Basis of Authority**

#### *A) Statutory Authority*

New Mexico Statutes Annotated §74-1-7 gives the New Mexico Environment Department (NMED) specific authority to promulgate rules and regulations necessary to develop and implement a capacity development program:

“The Department shall “maintain, develop, and enforce regulations and standards in the following areas: ...water supply, including implementing a capacity development program to assist water systems in acquiring and maintaining technical, managerial and financial capacity in accordance with §1420 of the federal Safe Drinking Water Act...”

[http://www.lexislawpublishing.com/sdCGI-BIN/om\\_isapi.dll?clientID=485&infobase=nmsa1978.NFO&softpage=browse\\_frame\\_pg](http://www.lexislawpublishing.com/sdCGI-BIN/om_isapi.dll?clientID=485&infobase=nmsa1978.NFO&softpage=browse_frame_pg)

#### *B) Implementing Authority*

20 New Mexico Administrative Code (NMAC) 7.1V502(D)(2) & (6) require all persons seeking approval for a PWS to submit a written application that includes TMF information:

“Any person seeking approval for a public water supply system project shall do so by submitting a written application with the Department. The application shall: . . . (2)Include 2 sets of complete plans and specifications. . .(6)For all new CWSs and new NTNCWSs commencing operation after October 1, 1999, include a capacity development analysis documenting ownership accountability, staffing and organization, revenue sufficiency, credit worthiness, and fiscal management and controls.”

<http://www.nmenv.state.nm.us/>

#### *C) Responsible Agencies*

NMED is responsible for implementing the drinking water program. The New Mexico Office of the State Engineer (NM OSE) approves water rights and issues well drilling permits. NMED has entered into a Letter of Understanding with NM OSE so that NMED can use information submitted by the systems.

The New Mexico Finance Authority (NMFA) makes recommendations to NMED concerning the approval or denial of an application with regards to a system’s financial capacity.

The New Mexico Public Regulatory Commission (NMPRC) regulates investor owned utilities and all incorporated businesses in New Mexico. Those systems that fall under NMPRC jurisdiction must secure a CPCN. NMPRC requires the submission of a NMED approved system design. NMED uses NMPUC rules as guidance regarding the documentation necessary to comply with NMED financial capacity requirements.

## **II. Control Points**

### *A) Application to Construct*

All persons wishing to construct a public water system must secure approval from NMED by submitting and gaining approval for engineering documents and a Capacity Development Analysis. To demonstrate adequate TMF capacity, these documents must include:

- C Plans and specifications
- C An O & M manual
- C An infrastructure improvement program
- C A capital improvement plan
- C Valid water rights or that a well drilling permit
- C Documentation of a certified operator.
- C Ownership and staffing and organization information
- C Demonstration of effective linkages with technical assistance providers, other systems, customers, and, regulators
- C Revenue sufficiency
- C Proposed rates and charges
- C Billing and collection practices
- C Credit worthiness
- C Financial ratios
- C Record keeping procedures
- C Annual budgeting and reporting practices
- C A financial investment strategy

When NMED is satisfied that the system has met all applicable requirements, it will issue approval.

## **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, the NMED will track the number and type of new systems that applied for initial approval; the number of approvals granted based on the first submission versus the number of times NMED requested additional information; the number of applications that were rejected; subsequent technical assistance to address deficiencies in the submitted information; and, the number of systems that pursue an option other than the construction and operation of a stand alone water system.

NMED will also periodically report to their Drinking Water Advisory Group to describe the effectiveness of the capacity development process. The Advisory Group consists of technical assistance providers and interested stakeholders who can provide advice regarding the implementation and success of the program.

## **New York**

### **I. Basis of Authority**

#### *A) Statutory Authority*

1) Public Health Law §225 establishes broad-based statutory authority for the Department of Health (DOH) to protect public health:

“The public health council shall, at the request of the commissioner, consider any matter relating to the preservation and improvement of public health, and may advise the commissioner thereon; and it may, from time to time, submit to the commissioner, any recommendations relating to the preservation and improvement of public health.”

<gopher://38.246.113.4/0/.laws/Public%20Health/.PBH225>

2) Environmental Conservation Law §§15-1501 and 1503 require all new water systems to obtain a permit from the Department of Environmental Conservation (DEC) prior to commencing construction:

“ . . . no person or public corporation who is authorized and engaged in, or proposing to engage in, the acquisition, conservation, development, use and distribution of water for potable purposes, . . . shall have any power to do the following until such person or public corporation has first obtained a permit from the department . . . (c) To commence or undertake the construction of any works or projects in connection with the proposed plans; . . . ”

#### *B) Implementing Authority*

1) 10 New York Codes, Rules, and Regulations (NYCRR) §5-1.22 requires all suppliers of water to submit plans and specifications for DOH’s approval prior to the installation or construction of a PWS:

“(a) No supplier of water shall make, install or construct, or allow to be made, installed or constructed, a public water system or any addition or deletion to or modification of a public water system until the plans and specifications have been submitted to and approved by the State.”

<http://www.health.state.ny.us/nysdoh/phforum/nycrr10.htm>

2) 10 NYCRR Subpart 5.4 requires all water treatment plants must be under the charge of a certified operator.

“A water treatment plant must be under the responsible charge of a water treatment operator and water treatment assistant operator...”



3) 6 NYCRR Part 601 requires any person or public corporation planning on constructing a water system, to secure a permit from DEC:

“A permit is required before a person or public corporation may take any of the following actions: . . . commence or undertake the construction of any works or projects in connection with proposed plans for a water supply system; . . . Construction may not begin on any part of a water supply system for which a permit has been issued until contract plans and specifications for that construction have been reviewed and approved by the department.”

### *C) Responsible Agencies*

DOH, DEC, the Public Service Commission (PSC), and the Office of the State Comptroller all share the responsibility for ensuring new system capacity. DOH is the lead agency responsible for coordinating the other Agency’s responses to new system applicants and will implement the program for ensuring capacity in new CWSs and new NTNCWSs. DOH has the authority to ensure capacity in new municipal and privately-owned CWSs, and NTNCWS pursuant to 10 NYCRR §5-1.22 (technical and financial capacity )and 10 NYCRR Subpart 5-4 (managerial capacity).

DEC assists with the review of technical and managerial capacity of new municipal and private systems. The PSC must approve the proposed rate structures for every system owned, operated, or managed by a water works corporation.<sup>9</sup> The Office of the State Comptroller addresses financial capacity concerns for new municipal systems.

## **II. Control Points**

### *A) Approval of Plans and Specifications*

In accordance with 10 NYCRR §5-1.22, no new system may be constructed until the plans and specifications have been submitted to and approved by DOH. Plans and specifications and engineering reports must be prepared in accordance with the *Recommended Standards for Water Works* (1992 edition), which requires information about source water adequacy, infrastructure adequacy, technical knowledge and implementation, revenue sufficiency, and credit worthiness. Managerial capacity is assessed pursuant to the operator certification requirements found at 10 NYCRR Subpart 5.

---

<sup>9</sup>Waterworks corporations are defined to include every corporation, company, association, partnership or person and their lessees, trustees and receivers. Public Service Law §2(27).

### *B) Water Supply Permit*

All municipal and privately-owned systems must secure a permit from DEC. The system must submit:

- C An application signed by an authorized individual and proof of any required resolutions, consents or ordinances
- C A system map and watershed maps
- C Plans and specifications
- C Engineers report
- C Estimated construction costs
- C Water analyses
- C Information on proposed treatment methods
- C A justification of the proposed project including considered alternatives

### *C) Approval of Proposed Rate*

All water works corporations must undergo a rate review process by the PSC. The PSC has the authority to approve or disapprove a proposed rate prior to the commencement of operation. To determine a reasonable rate that will provide sufficient revenue for the provision of safe and adequate service, the Commission must review TMF aspects of capacity.

### *D) Operator Certification*

DOH ensures that all new CWSs and NTNCWSs employ a certified operator. The State ensures that systems have managerial capacity through the operator certification requirements.

### *E) Permission of State Comptroller*

OSC reviews the revenue sufficiency and/or credit worthiness of proposed municipal water systems to determine whether the cost will be an undue burden on the properties that would bear it. Upon conducting this financial review, OSC is authorized to approve or disapprove the establishment or extension of town water districts, the provision of town water improvements, and the establishment or extension of county water districts.

## **III. Program Evaluation**

DOH evaluates New York's new system capacity assessment program implementation plan by reviewing new system applications on an annual basis and determining whether valid criteria were used in the new system approval process.

## **North Carolina**

### **I. Basis of Authority**

#### *A) Statutory Authority*

North Carolina's General Statute §130A-317(c) requires anyone planning on constructing a PWS to secure a determination from the Department of Environment and Natural Resources (DENR) that the system will be able to comply with drinking water rules:

“No person or unit of local government shall begin construction or alteration of a public water system or award a contract for construction or alteration unless:...The Department has determined that the system...will be capable of compliance with the drinking water rules.”

#### *B) Implementing Authority*

Title 15A of the North Carolina Administrative Code 18C §.0300 prohibits the construction or operation of a water system until the system has complied with the capacity development requirements described in the section:

“No construction, alteration, or expansion of a water system...shall be placed into service and no service connection shall be made until the applicant has complied fully with §.0300 of this Subchapter and received Final Approval from the Department.”

#### *C) Responsible Agency*

Within DENR, The Division of Environmental Health's Public Water Supply Section oversees North Carolina's program for ensuring capacity in new CWSs and new NTNCWSs. DENR works closely with the North Carolina Utilities Commission (NCUC) and the Local Government Commission (LGC). DENR relies on the NCUC's Certificate of Public Necessity (CPN) process to ensure that all privately owned, for-profit systems demonstrate adequate financial capacity. The LGC oversees the financial practices of local government and reviews the financial capacity of all new government owned systems.

### **II. Control Points**

#### *A) Plans and Specifications Approval*

Systems are required to submit plans and specifications for review and approval by DENR. They must be prepared by a professional engineer licensed to practice in North Carolina.

### *B) Authorization to Construct*

All new CWSs and NTNCWSs are required to obtain construction authorization from DENR.

To obtain this authorization, systems must submit:

- C Engineer's Report
- C Water System Management Plan (WSMP) including:
  - C An organizational chart
  - C A description of the responsibilities of key personnel
  - C The identification of decision-makers
  - C Operators' time commitments
  - C Copies of contracts for management or operation
  - C A description of legal, engineering, accounting and other professional services
  - C Management qualifications and training
  - C System policies regarding TMF management.
  - C Financial plans
  - C Documentation of LGC or NCUC approval of financial capacity, where applicable

If DENR determines that the system's application is complete and in accordance with design and capacity requirements, it will grant construction approval. If DENR determines that the system is lacking in capacity or other requirements, the applicant will be asked to submit further documentation.

### *B) Final Approval*

After construction, the system must secure final approval prior to commencing operation of the system. The system must submit and DENR must approve:

- C Certification of construction in accordance with approved plans and specifications (signed by a registered professional engineer)
- C O & M plan
- C Emergency management plan

## **III. Program Evaluation**

To evaluate the success of its capacity development program, North Carolina will compare compliance information for new and existing systems. DENR will also summarize statistics regarding the number of proposed new CWSs and new NTNCWSs and the results of their capacity demonstrations.

## **North Dakota**

### **I. Basis of Authority**

#### *A) Statutory Authority*

North Dakota Century Code §61-28.1-03 requires the Department of Health (DOH) to ensure capacity in new systems except those primarily providing services to transient populations:

“Powers and duties of department. The department may exercise the following powers and shall have the following duties: ... 16. Ensure that all new public water systems, excluding those that principally provide service to transients, commencing operation after October 1, 1999, demonstrate TMF capacity to comply with all rules adopted under this chapter which are in effect, or will be in effect, on the date of commencement of operations...”

<http://www.state.nd.us/lr/>

#### *B) Implementing Authority*

North Dakota Administrative Code (NDAC) § 33-17-01-19 requires new systems to submit plans and specifications:

“1. Plans and specifications shall be prepared for all new public water systems. . . Such plans and specifications, together with other pertinent information, shall be submitted to the department for review and approval prior to awarding of contracts....”

<http://www.health.state.nd.us/ndhd/pubs/rules/publicwater33-17.pdf>

#### *C) Responsible Agency*

DOH’s Division of Municipal Facilities (DMF), DWSRF program is responsible for review and approval of plans and specifications for all new or modified PWSs. The DMF will make all new system capacity determinations and utilize information from DMF’s other programs including the Operator Training and Inspections Program and the Drinking Water Program.

To encourage systems to meet capacity standards, DOH requests that the State Water Commission delay issue of Water Allocation Permits and the State Plumbing Board delay issuing plumbing approvals until capacity has been determined. No formal agreements are necessary since DOH can deny or condition plans and specifications approval until the system secures water allocation or plumbing permits. In addition, DOH requests that entities such as regional planning councils who are involved in review and approval of new development, notify DOH of potential new systems and delay approvals pending DOH capacity assessment.

## **II. Control Points**

### *A) Letter of Approval*

All new CWSs and NTNCWSs are required to obtain a Letter of Approval from DMF before commencing operation. Systems must submit:

- C A new water system application (including proof of a valid water use permit)
- C An operation plan, including
  - C A description of the new water system
  - C A description of the nature and extent of the area to be serviced
  - C Assessment of compliance
  - C A description of the alternatives considered to provide water service
  - C An engineering description
  - C Documentation of legal ownership and authority
  - C Description of how the system will be managed (i.e. organizational charts, staffing plan, etc.)
  - C Documentation of a certified operator
  - C Projected revenues, cash flow, income, and debt for 5-years
- C Plans and specifications
- C A construction schedule
- C An O & M manual

Once DMF has reviewed the above information, it will issue a Letter of Approval if the system has demonstrated adequate capacity. If the system has failed to demonstrate capacity, DMF will request additional information and/or deny the application for a Letter of Approval.

After construction, the system must submit a Notice of completion to DMF certifying that the system was constructed in accordance with approved plans and specifications.

## **III. Program Evaluation**

North Dakota does not anticipate that enough new systems will be constructed in the future to merit a specialized data tracking system. DOH will maintain records on: application information, the date the capacity review was completed, capacity determination findings, plans and specifications with approval letters, construction schedules, sample results, notices of completion, O & M manuals, letters of approval, dates of system start-up, and findings related to follow-up capacity evaluations. Information will be evaluated periodically, considering SDWA compliance reviews, certification reviews, inspection report reviews, comparisons with existing systems (based on State Annual Compliance Report or CCRs), direct capacity surveys of approved new systems, and audit report reviews.

## **Ohio**

### **I. Basis of Authority**

#### *A) Statutory Authority*

1) Ohio Revised Code (ORC) §6109.07 requires the approval of plans prior to the commencement of construction or installation of a PWS:

“No person shall begin construction or installation of a public water system, or make a substantial change in a public water system, until plans therefore have been approved by the director of environmental protection.”

2) ORC §6109.24 requires new systems to demonstrate capacity and gives the Ohio Environmental Protection Agency (OEPA) the authority to establish TMF capability requirements:

“A public water system that is a community water system, or that is not a community water system and serves a nontransient population, and that proposes to commence providing water to the public after October 1, 1999, shall include with the submission of plans ... documentation that demonstrates the technical, managerial, and financial capability of the system to comply with this chapter and rules adopted under it. The director of environmental protection shall adopt, and may amend and rescind, ... establishing requirements governing the demonstration of technical, managerial, and financial capability for the purposes of this section.”

[http://onlinedocs.andersonpublishing.com/revisedcode/title-61/chapter-6190/ §-6109.24.htm](http://onlinedocs.andersonpublishing.com/revisedcode/title-61/chapter-6190/§-6109.24.htm)

#### *B) Implementing Authority*

Ohio’s Administrative Code §3745-87-02 requires that new systems submit a Capability Assurance Plan to the OEPA or its duly authorized representative:

“ ... all applicants for approval under §6109.07 of the Revised Code that are new community or nontransient noncommunity public water systems which will commence operation after October 1, 1999, shall submit a capability assurance plan to the director...”

<http://www.epa.ohio.gov/ddagw/rules/37458701.pdf>

#### *C) Responsible Agency*

OEPA is the primacy agency for Ohio’s Drinking Water Program.

## **II. Control Points**

### *A) Approval of Plans*

Systems must secure approval to construct from OEPA. A system must submit detailed plans and specifications and a Capability Assurance Plan. OEPA requires the Capability Assurance Plan to ensure a sound technological project, that the entity has both the ability and commitment to provide for effective management and operation, and the financial stability to operate the system. The Capability Assurance Plan must include:

#### Technical Capacity

- An assessment of current and foreseeable requirements under ORC Chapter 6109 (Ohio Safe Drinking Water Act) based on data for the proposed supply source
- A description of the existing and projected area and population served
- An estimation of existing and projected water demand
- A description of considered alternatives and the rationale for selecting this project over alternatives
- An engineering description of current and future facilities
- A detailed description of operator qualifications
- Documentation that metering is used for lost water inventory and customer billing

#### Managerial Capacity

- Description of the type of ownership and documentation that the owners have the legal right and authority to finance, construct, operate, and maintain the system
- Documentation of staffing, organization, and service and cooperative agreements
- Demonstration of the ability to address customer and compliance issues
- An O & M plan
- A description of effective external linkages to address capacity issues

#### Financial Capacity

- A description of revenues and cash flow for meeting construction, operation, and maintenance costs for five years
- A description of the organizational structure of financial management personnel
- Information demonstrating bond or credit rating
- The establishment of an escrow account for small private CWSs (serving less than 500 customers), which are not regulated by the Public Utilities Commission and provide water to properties owned by people other than the system owners.

OEPA can deny approval if the construction plans or the capacity assurance plan are incomplete or inadequate to demonstrate TMF capacity.

## **III. Program Evaluation**

The OEPA Division of Drinking and Ground Waters will track the number and percentage of enforcement referrals containing capability assurance provisions, the number and percentage of



systems passing capability assurance screens in sanitary surveys, compliance reports, the number and percentage of Water Supply Revolving Loan Account applicants denied loans as a result of insufficient capacity, and number and percentage of plans for new systems denied as a result of insufficient capacity. This information will be used to measure whether there are improvements in capacity through the implementation of a new system program.

# Oklahoma

## I. Basis of Authority

### A) Statutory Authority

1) Oklahoma Statute §27A-2-6-304 prohibits the construction of any new water system prior to obtaining a permit to construct from the Department of Environmental Quality (DEQ):

“No person shall supply water, or do any construction work of any nature for supplying water, to the public, from, or by a public water supply system by means of any waterworks without a written permit issued by the Executive Director.”

<http://www2.lsb.state.ok.us/os/os%5F27a%2D2%2D6%2D304.rtf>

2) Oklahoma Statute §27A-2-6-303 gives the Environmental Quality Board<sup>10</sup> the authority to promulgate rules pertaining to PWSs:

“The board shall promulgate rules as may be necessary to implement the provisions of this part pertaining to water supply systems.”

<http://www2.lsb.state.ok.us/os/os%5F27a%2D2%2D6%2D303.rtf>

### B) Implementing Authority

1) Oklahoma Administrative Code (OAC) §252:625-1-5(a) requires a permit for the construction of any waterworks that will supply water to the public:

“(a) Activities. A permit shall be required for the construction or extension of any waterworks for the supply of water to the public, and for authorization to supply water to the public.”

<http://www.deq.state.ok.us/rules/625.pdf>

2) OAC §252:625-1-7 (a) and (c) prohibit DEQ from issuing a permit for construction if DEQ finds the applicant of a new system cannot meet State standards and regulations:

“(a) Every applicant for a permit to supply water or to construct any type of waterworks shall provide to the Department information and legal description of the type of entity which is making the application (c) The Department may require such other information as in his opinion is necessary to carry out the regulatory functions assigned to him by State law.”

3) OAC §252:625-1-11 prohibits operation of a new PWS prior to a final system inspection and the acquisition of a permit to operate.

---

<sup>10</sup>“The Board shall: . . . 2. Be the rulemaking body for the Department of Environmental Quality.” Oklahoma Statutes §27A-2-2-101(G)(2).

“No connections shall be made to a water system until the Department has made a final inspection of the construction and has issued the owner a written notice of approval and a permit to supply water.”

### *C) Responsible Agencies*

DEQ’s Water Quality Division (WQD) is the primary State agency responsible for approving the planning and design of water supply systems. Privately owned (for-profit) PWSs are required to gain approval from Oklahoma Corporate Commission (OCC) prior to obtaining a permit for construction. OCC assesses managerial and financial capacity as part of its review process.

## **II. Control Points**

### *A) Permit to Construct*

A system must secure a permit from WQD prior to construction. WQD may require the submission of a Preliminary Report to facilitate a discussion of the project before the submission of the engineer’s report. It is the goal of the DEQ WQD to mitigate any problems with the design/operational criteria before the plans are submitted. The application for a permit must be accompanied by:

#### Technical Capacity

- Plans and specifications
- An engineer’s report that includes:
  - General information
  - Extent of water works system
  - Alternate plan
  - Soil, groundwater conditions, and foundation problems
  - Water use data
  - A description of the sources of supply
  - Information on fire flow requirements, sewerage system availability, the proposed treatment process, waste disposal, automation, project sites, and future extension
- Design criteria

#### Managerial Capacity

- Legal description of the type of entity which may include the submission of the documents that created the entity, bylaws, resolutions, results of the last general election held for the municipality, articles of incorporation, etc.
- Plan for training and continuing education
- Management procedures and policies
- Record keeping procedures

### Financial Capacity

- A demonstration that provisions have been made for continued existence of the operating entity for a period of time equal to the system's expected useful life (required of systems that are not a city, town, or other public entity)
- A demonstration of financial accountability and viability (required of systems that are not a city, town, or other public entity)
- Annual budgets
- Costs of construction and operation

### *B) Permit to Operate*

Once the system has been constructed, the water system must apply for a permit to operate. DEQ will perform a final inspection and will review as-built plans. The department will issue a permit once it is satisfied that the system meets all requirements.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, DEQ plans to: routinely review new systems for compliance through established programs, including Public Water Supply Sanitary Surveys, Compliance Monitoring, and Operator Training and Certification.

# Oregon

## I. Basis of Authority

### A) Statutory Authority

Oregon Revised Statute §448.131 gives the Oregon Health Division (ODH) broad authority to adopt standards relating to water system construction and operation:

“The Health Division shall adopt water quality standards that are necessary to protect the public health through insuring safe drinking water within a water system...(2) In order to ensure safe drinking water, the division shall prescribe: (a) Construction standards. . . (b) Standards for the operation of water systems.”

<http://landru.leg.state.or.us/ors/448.html>

### B) Implementing Authority

Oregon Administrative Rules (OAR) §333-061-0061 requires owners of new water systems to demonstrate TMF capacity in order to receive ODH approval to operate:

“Technical, Managerial, and Financial Capacity Requirements for New Public Water Systems. (1) Any new community, nontransient noncommunity, or transient noncommunity public water system commencing operations after October 1, 1999, must meet the applicable requirements in this rule prior to serving drinking water to the public. The owner of such water system shall submit evidence of meeting all applicable requirements to the Division for review and shall commence operation only after Division approval...(3) Requirements for Technical Capacity...(4) Requirements for Managerial Capacity...(5) Requirements for Financial Capacity.”

[http://arcweb.sos.state.or.us/rules/OARS\\_300/OAR\\_333/333\\_061.html](http://arcweb.sos.state.or.us/rules/OARS_300/OAR_333/333_061.html)

### C) Responsible Agencies

OHD has primary responsibility for ensuring a demonstration of adequate capacity in new PWSs. OHD and the Oregon Economic Development Department (OEDD) have entered into an MOU in which OEDD has agreed to conduct financial capacity assessments of new water systems using DWSRF evaluation criteria. OHD has also entered into an interagency agreement with the Department of Land Conservation and Development to require land use approval at the local level prior to construction and operation of a public water system. OHD requires proof of approval from the local land use authority as part of the permit process.

The Oregon Water Resources Department (OWRD) issues water right permits and reviews water conservation and management plans. There is no interagency agreement between OHD and OWRD.

## II. Control Points

### A) Plan Review Process

Systems must provide evidence of meeting all of the applicable requirements to OHD. New water systems can commence operation only after OHD concurs that the requirements have been met. Systems are required to submit Water System Capacity Report and:

- C Local land use authority approval
- C Construction plans and specifications
- C A plan for installing water use meters at all service connections
- C Water quality test results
- C Demonstration of a valid water right permit
- C Master plan prepared by a professional engineer<sup>11</sup> (systems serving more than 300 people)
- C Evidence of being able to comply with operator certification/continuing education requirements
- C A water management and conservation plan if required by OWRD
- C A water rate structure and billing procedure, or alternate financial plan, to assure that funds are collected and available to meet the anticipated operation, maintenance, and replacement costs of the water system

As noted above, OEDD performs the financial capacity assessment and reports to the OHD. OHD uses a *Capacity Assessment Checklist*, which is also sent to new water systems, to track each element of capacity. If there are deficiencies in capacity, OHD itemizes these deficiencies in a letter along with a statement on commencement of operation status.

## III. Program Evaluation

The Division plans to review compliance data and enforcement files to determine the success of the capacity review process. If OHD notices excessive violations and enforcement actions on new systems, it will review the plan review process, and make changes where necessary.

---

<sup>11</sup>The master plan must evaluate the needs of the water system for at least a twenty year period. It must evaluate the system's water supply source; water treatment, storage, and distribution facilities; and operation and maintenance requirements. The plan must explain the impacts of present and probable future drinking water quality regulations and include a water system improvement program that describes engineering alternatives, costs, financing alternatives, and a recommended schedule for water system design and construction.

# Pennsylvania

## I. Basis of Authority

### A) Statutory Authority

1) Act 1984-43 of The Laws of Pennsylvania §5(b)(5) requires the Department of Environmental Protection (DEP) to assume primary enforcement responsibility for PWSs and to establish and maintain a permit program for the design and construction of systems:

“The Department shall develop and implement procedures. . . including. . . the establishment and maintenance of a permit program.”

2) Act 1984-43 §7(a) requires all persons to secure a permit prior to construction, operation, or substantial modification of a CWSs :

“a) It shall be unlawful for any person to construct, operate, or substantially modify a community water system without first having received a written permit from the department...”

3) Act 1984-43 §7(b) requires all persons to secure a permit prior to construction, operation, or substantial modification of a NCWS:

“ b) It shall be unlawful for any person to construct, operate or substantially modify a noncommunity water system without first having received a written permit from the Department unless: . . .(1) [it] is operated under valid permit issued under other law . . . or. . . is a type which the Department determines can be adequately regulated through standardized specifications and conditions; (2) [it] complies with all other requirements.”

### B) Implementing Authority

1) 25 Pa. Code §109.501(a) requires all persons to obtain a construction permit from the DEP prior to beginning construction of a PWSs :

“A person may not construct a public water system without first having obtained a construction permit from the Department.”

<http://www.pacode.com/secure/data/025/chapter109/s109.501.html>

2) 25 Pa. Code §109.501(c) requires all persons to obtain an operation permit prior to commencing operation of a PWSs :

“A person may not operate a public water system without first having obtained an operation permit from the Department.”

<http://www.pacode.com/secure/data/025/chapter109/s109.501.html>

3) 25 Pa. Code §109.505 extends some of the permitting requirements to NCWSs since a NCWS does not have to secure a permit under certain limited situations:

“A noncommunity water system shall obtain a construction permit. . . and an operation permit. . . unless. . .[the system] uses a groundwater source of supply requiring treatment no greater than disinfection to provide water that meets the primary MCLs and, files a brief description of the system, including raw source quality data, on forms supplied by the Department.”

<http://www.pacode.com/secure/data/025/chapter109/s109.505.html>

### *C) Responsible Agencies*

Pennsylvania’s DEP has broad authority to regulate water systems in the State. The Department of Agriculture has been delegated authority for certain NCWSs. There is a MOU between the DEP and the Department of Agriculture to clarify the responsibilities for systems regulated by the Public Eating and Drinking Place Law, the Seasonal Farm Labor Act, or the Public Bathing Law. In order to receive a permit under these laws, systems must, among other things, submit a Brief Description Form (described below) to the DEP. This takes the place of a business plan for new NCWS. For those systems required to hold a Certificate of Public Convenience (CPC), the Public Utilities Commission (PUC) requires CWSs to submit the business plan required by DEP along with the CPC application.

## **II. Control Points**

### *A) Construction Permit*

CWSs must obtain a construction permit prior to commencing construction. DEP will review:

- An application
- Plans and specifications
- An engineer’s report
- Water quality analysis, and other data, and
- A business plan that includes demonstration of TMF capacity

The Department can request additional information and can deny an application for a construction permit.

NCWSs have the option to obtain both a construction and operating permit from DEP or to secure a permit from the Department of Agriculture under either the Public Eating and Drinking Place Law, the Seasonal Farm Labor Act, or the Public Bathing Law; or file a Brief Description Form that completely describes the system. The form requires, among other things, a responsible official to sign a Certification of Responsibility to attest that the information on the form is correct, that there is a pledge of full financial support, and that failure to comply with all requirements may result in the closing of the entire facility.



### *B) Operating Permit*

The Department will issue an operating permit after the submission, review, and approval of an “as-built” certification; if the Department is satisfied that the water supplier has adequate operation and maintenance information on site; and, if a certified operator has been retained, if applicable.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and to refine it for the future, the DEP will track system compliance through the Pennsylvania Drinking Water Information System (PADWIS); use PADWIS and the new Foundation for Information Exchange (FIX) database to track permit applications and business plans for new systems; and use 47 viability indicators developed through a joint project between the DEP and EPA to evaluate the success of the program.

## **Puerto Rico**

### **I. Basis of Authority**

#### *A) Statutory Authority*

Broad authority is provided to the Puerto Rico Department of Health (DOH), through Act No. 5 and Act No. 32, to prohibit any person or institution from engaging in any activity that endangers public health:

“ . . .perform any or all such actions as are needed to carry out the purposes and requirements of this Act with regard to the approval of the Regulations required to enforce it.”

#### *B) Implementing Authority*

Regulation No. 50 (“To Protect the Purity of the Potable Waters of Puerto Rico”) provides the implementing authority for DOH.

#### *C) Responsible Agencies*

DOH is the agency with primary responsibility for protecting the purity of Puerto Rico’s drinking water and ensuring that systems are in compliance with NPDWRs. Through a MOU, DOH receives assistance from the Government Development Bank (GDB) and the Puerto Rico Infrastructure Financing Authority in conducting the financial capability assessment.

### **II. Control Points**

There are three endorsements, used as control points, which must be secured by a new system prior to operation:

#### *A) Development Endorsement*

To receive a development endorsement, applicants must submit plans and specifications and an engineering report that includes an:

- C Environmental assessment
- C Archeological report
- C System description
- C Infrastructure replacement plan
- C O & M plan
- C Operator training plan

New CWSs and new NTNCWSs must comply with the following requirements:

- C Demonstrate ability to accommodate projected population increase for the first five years of operation without modifications

- C Submit, request, and comply with the endorsements of DOH for the development, construction, and operation of a PWS
- C Comply with the permits and endorsements of the government agencies that are concerned with or regulate the construction and operation of water systems. This includes DOH, the Department of Natural Resources, Regulations and Permits Administration, Puerto Rico Environmental Quality Board, and other agencies
- C Prepare and submit a copy of the operation/maintenance manual to be used by the operator of the proposed system

*B) Construction Endorsement*

Systems must submit a business plan that includes information on ownership organization, management qualifications and training, budget controls, and water system policies. Systems must include:

- C Emergency management plan
- C Budget
- C Evidence of incorporation through the Puerto Rico Department of State
- C A legal document where all duties and responsibilities of all the members of the entity in charge of undertaking the operation, maintenance, and administration of the system are stated
- C Identification of a President, Vice President, Treasurer, Secretary, and one person with knowledge on drinking water regulations, compliance, operation and maintenance, as well as operators certified in accordance with the Puerto Rico Examining Board
- C A budget estimate for initial construction cost, operation, and maintenance for the next five years

*C) Operating Endorsement*

An operation endorsement is the final phase in the review process. Receipt of this endorsement is based on the completed financial assessment, approval of the system's management structure and policies, and the review of the system's as-built plans.

**III. Program Evaluation**

DOH will evaluate the effectiveness of the new system capacity assurance program on the basis of compliance data. Compliance rates for systems established after October 1, 1999, will be compared to the compliance rates for systems established before October 1, 1999. If compliance rates for the newer systems are greater than those of older systems, the program will be deemed effective. If this is not the case, the new system program will be re-examined, and changes will be made.

## **Rhode Island**

### **I. Basis of Authority**

#### *A) Statutory Authority*

1) Rhode Island General Law §46-13-18 grants broad authority to the Department of Health (RIDH) for the promulgation of any regulations necessary to implement the requirements of the SDWA:

“The director is hereby authorized to adopt regulations consistent with...the federal Safe Drinking Water Act, 42 U.S.C §300f et seq., and the federal regulations adopted thereunder.”

<http://www.rilin.state.ri.us/Statutes/TITLE46/46-13/S00021.HTM>

2) Rhode Island General Law §46-13-2 requires approval from RIDH prior to the operation of a PWS:

“[.1] No person shall operate or maintain a public water supply system unless the system is approved by the director of health...[.2] The director, after notice and opportunity for hearing, is authorized to deny, suspend, or revoke any application submitted or approval granted under this chapter...”

<http://www.rilin.state.ri.us/Statutes/TITLE46/46-13/S00003.HTM>

#### *B) Implementing Authority*

Rhode Island Regulation R46-13-DWQ, §2.3 lays out the necessary procedures for new system licensure, and requires applicants to demonstrate capacity:

“Applications for a new public water system shall include a water system management plan that demonstrates the financial, managerial, and technical capacity to comply with statutory and regulatory requirements.”

<http://www.health.state.ri.us/hsr/regulations/dwq.pdf>

#### *C) Responsible Agency*

RIDH is the primary agency for the Rhode Island Drinking Water Program.

### **II. Control Points**

#### *Licensure to Operate*

All new water systems are required to obtain a license from RIDH before beginning operation. A license will not be issued unless the water system has demonstrated adequate TFM capacity. To obtain a license, new water systems must submit:

- C Water System Management Plan that includes:
  - C A system description
  - C An analysis of source adequacy to meet demand
  - C An infrastructure replacement plan
  - C A cross connection control program
  - C An O & M manual
  - C A training plan
  - C A description of the system's organization and ownership
  - C An emergency management plan
  - C A 5-year projected budget
  - C A description of budget controls
- C Plans and specifications, prepared by licensed engineer
- C An inventory of the sources of pollution within the wellhead area
- C Water Quality Testing Results (post construction)

If the Department cannot determine that a system has adequate capacity, the license will be denied. The system will have the options of: amending its application, re-applying when capacity can be clearly demonstrated, or seeking other alternatives.

### **III. Program Evaluation**

RIDH is developing a database in order to track and facilitate licensure activities throughout the Department. The new system will be linked to the PWS compliance database so that anyone using the compliance database will be able to see whether a new system has been issued a license. RIDH will retrieve compliance data for new water systems and compare them to compliance rates of existing systems. If compliance rates of new systems are not greater than those of existing systems, the program will be amended in order to improve compliance rates.

## South Carolina

### I. Basis of Authority

#### A) Statutory Authority

The South Carolina Code of Laws, §44-55-120(D) gives the Department of Health and Environmental Control (DHEC) specific authority to deny a construction permit to new systems that cannot demonstrate viability<sup>12</sup> (i.e. capacity):

“The department may deny a construction permit to any new system which is unable to demonstrate viability to comply with the Safe Drinking Water Act or where connection to an existing, viable water system is feasible.”

<http://www.leginfo.state.sc.us/code/index.html>

#### B) Implementing Authority

State Primary Drinking Water Regulations (SPDWR) Section 61-58.1 outlines the procedures that an applicant must follow for obtaining a permit to construct a water system:

“Before a permit to construct can be issued for a new public water system, the applicant shall demonstrate to the satisfaction of the Department that the new system will be a “viable water system.”

<http://www.lpittr.state.sc.us/coderegs/c061b.htm>

#### C) Responsible Agency

DHEC is the primacy agency for the South Carolina Drinking Water Program.

### II. Control Points

#### A) Construction Permit

Before beginning construction, all new systems must obtain approval from DHEC. DHEC first evaluates whether it is feasible for the applicant to connect to an existing water system. If it is not feasible, staff engineers will review permit applications for compliance with the capacity demonstration procedures and with design standards. A staff accountant assists the engineers in reviewing the financial capacity of a proposed system.

To evaluate TMF capacity, the Department requires systems to submit:

---

<sup>12</sup>A “viable water system means a water system which is self sustaining and has the commitment and the financial, managerial, and technical capability to consistently comply with the State SDWA and these regulations.” State Primary Drinking Water Regulations Section R.61-58(B).

### Technical Capacity

- C Engineering report
- C Plans and specifications
- C Local government approval

### Managerial Capacity

- C Identification of water system owner
- C Description of management structure
- C An organizational chart
- C Staffing requirements and duties
- C Copies of outside service agreements

### Financial Capacity

- C Multi-year financial plan, including: assurance of revenue sufficiency for at least five years, rate projection showing significant coverage ratio, escrow funds, bonding, and a letter of credit

All of the above information may be submitted as part of the engineering report. Management and financial plans are not required of new systems whose only source of water is from an existing system with capacity and the new system does not treat or sell the water.

If DHEC's engineering and accounting staff find that an applicant does not have adequate capacity, DHEC may deny the permit to construct.

### *B) Final Construction Approval*

After construction, the system must arrange for an inspection by DHEC and submit:

- C A letter from a professional engineer certifying that construction has been completed in accordance with the approved plans and specifications
- C An outline of any deviations to the permitted project
- C Additional detailed technical information including the results of source water analyses and analyses following disinfection
- C Proof of registration with the South Carolina Public Service Commission for new privately owned utilities and homeowner associations.

DHEC will issue a final construction approval if the system has satisfied all applicable requirements.

### **III. Program Evaluation**

To evaluate its capacity assurance program, South Carolina will monitor the success of new water systems in maintaining compliance with the State SDWA. DHEC plans to develop a computer program that cross references the permitting database to other databases (e.g., sanitary survey, water quality) for the purpose of tracking new water system compliance.

## **South Dakota**

### **I. Basis of Authority**

#### *A) Statutory Authority*

South Dakota's Codified Laws Annotated (CLA), §34A-3A-25 gives the Department of Environment and Natural Resources (DENR) authority to promulgate rules to establish procedures for a demonstration of capacity by new systems:

“In order to carry out the requirements of the federal SDWA...the secretary of environment and natural resources shall promulgate rules ... establishing: (1) Procedures for a supplier of water to demonstrate that a new system ... has the technical, managerial, and financial capacity to achieve and maintain compliance...

CLA §34A-3A-25 gives DENR authority to promulgate rules to establish procedures to issue certificates of approval to new water systems:

“In order to carry out the requirements of the federal SDWA...the secretary of environment and natural resources shall promulgate rules ... establishing: (2) Procedures for the department to issue certificates of approval to new water suppliers once a technical, managerial, and financial capacity review ... is completed...”

<http://www.state.sd.us/state/legis/lrc/statutes/34A/03A/002500M.htm>

#### *B) Implementing Authority*

South Dakota Administrative Rules (SDAR) § 74:04:09:03 requires new water systems to demonstrate capacity before operations begin:

“Each new water system must demonstrate to the department that it has adequate technical, managerial, and financial capacity before it may provide water for human consumption.”

<http://www.state.sd.us/state/legis/lrc/rules/rulesearch.htm>

#### *C) Responsible Agencies*

DENR is the primacy agency for the South Dakota Drinking Water Program and has primary responsibility for implementing the capacity development requirements for new systems.

### **II. Control Points**

#### *A) Certificate of Approval*

A Certificate of Approval is required for all new CWSs and new NTNCWSs prior to the distribution of water. DENR will issue written approval to begin construction when a system has demonstrated adequate TMF capacity. Applicants are required to submit:



### Technical Capacity

- Owner and operator contact information
- A legal description of the facility
- A map of the project
- The number of expected hook-ups
- Documentation of a water right permit
- A description of the water source
- A Facilities Plan (part of a required Business Plan) that describes the scope of the water service, the area to be served, current and expected compliance from proposed water source, alternatives considered (with the TMF reasons behind the chosen approach), and an engineering description of construction phases
- Plans and specifications

### Managerial Capacity

- A Management Plan (part of a required Business Plan) that documents that the applicant has legal authority to construct and operate the system and describes the management and operating credentials of the system's personnel

### Financial Capacity

- A Financial Plan (part of a required Business Plan) that includes revenues, cash flow, income and debt for construction costs, and projects the costs of operation and maintenance for at least 5 years from starting operation

If DENR is satisfied with the system's TMF capabilities, it will issue written approval to proceed with construction. The system then submits a construction schedule and begins to construct. Upon completion of construction, the system must arrange for DENR to inspect the system and submit:

- A notice of completion certifying that the system was constructed in accordance with approved plans and specifications.
- Water quality sampling results
- An O & M manual

Once the notice of completion is received by DENR, and the system has satisfied all applicable requirements, DENR will issue a Certificate of Approval and the system may begin operating.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, DENR is developing a database to compare new systems to existing systems. DENR's drinking water information database will be linked to a PWS tracking program database. The database can be queried to compare existing system compliance to new system compliance rates. If the compliance rates for new system rates are higher than existing system rates, the program will be considered a success. If not, the program will be altered to improve new system compliance rates.

# Tennessee

## I. Basis of Authority

### A) Statutory Authority

Tennessee Code Annotated (TCA) Section 68-221-704(2)(E) grants the Board<sup>13</sup> specific authority to promulgate regulations to establish a requirement that all new systems demonstrate TMF capacity:

“The board has the following duties and responsibilities to...(2) Adopt...rules and regulations...Such rules and regulations shall at a minimum...(E)Establish a requirement that all new community water systems and new nontransient, noncommunity water systems commencing operation after October 1, 1999, demonstrate technical, managerial, and financial capacity.”

<http://www.lexislawpublishing.com/Resources/>

### B) Implementing Authority

State Primary Drinking Water Regulations §1200-05-1-.17(37) requires that all new systems submit a capacity development plan and demonstrate “viability” (i.e. capacity):

“Any new community water system or non-transient non-community water system commencing operation after September 30, 1999, shall have a “Capacity Development Plan” and be a “viable water system.”

### C) Responsible Authorities

The Tennessee Department of Environment and Conservation (TDEC) is responsible for administering the capacity development requirements for new systems. Staff from the Division of Community Assistance assist TDEC engineers in reviewing the financial capacity of proposed systems.

## II. Control Points

### A) Approval to Construct

Prior to construction, new systems must submit an engineering report to TDEC for review and approval. The report must include:

- C A statement of why the system needs to be constructed (the problem or need)
- C A summary of alternative solutions that were considered
- C A description of the sources of water

---

<sup>13</sup>“Board” means the Tennessee Water Quality Control Board as established by TCA § 69-3-104.

- C A description of the proposed treatment processes
- C A description of the proposed waste disposal processes
- C A description of the distribution system
- C Financing including rates, debt, etc.
- C A description of the management of the system

If the report demonstrates that the system will have adequate capacity, approval is granted for the preparation of plans and specifications and for the system to proceed with construction.

*B) Final Construction Approval (i.e. Approval to Operate)*

A new water system must obtain written approval from DEC in order to begin operation. DEC engineers inspect the water system evaluating its compliance with design standards and consistency with the documents approved in the construction approval process. Additionally, systems must submit a Capacity Development Plan. The plan must include:

- C Information on the operator's training and certification
- C System ownership and accountability information
- C Staffing and organizational structure
- C A description of fiscal management and controls
- C A source water assessment and protection plan
- C A Business Plan that identifies: source(s) of income or revenue sufficient to meet expenses over a three year period, estimated costs of all facets of water system operation, maintenance, management, and administration, and repayment of borrowed and amortized funds

The system will not be permitted to begin operation unless the system has complied with all applicable capacity requirements.

### **III. Program Evaluation**

To evaluate its new system capacity development program, Tennessee plans to track the compliance rates of new systems.

# Texas

## I. Basis of Authority

### A) Statutory Authority

Texas Health and Safety Code (THSC) Chapter §341.035(b) requires prospective owners and operators of systems, to submit TMF information to the Texas Natural Resource Conservation Commission (TNRCC):

“The prospective owner or operator of the system must submit to the executive director a business plan that demonstrates that the owner or operator of the proposed system has available the financial, managerial, and technical capability to ensure future operation of the system in accordance with applicable laws and rules... unless the person (1) is a county; (2) is a retail public utility defined by Water Code 13.002; (3) has executed an agreement with a political subdivision to transfer ownership and operation to the political subdivision; or (4) is a noncommunity nontransient water system and has demonstrated financial assurance under Chapter 361 or 382 of this code....”

<http://capitol.tlc.state.tx.us/statutes/codes/HS000095.html>

### B) Implementing Authority

Texas Administrative Code Title 30 §290.39(h.1) requires new systems to secure a permit from the Executive Director of TNRCC before construction of a PWS begins: (Water utilities, as defined by THSC §341.035(b) above, are not required to submit a business plan.)

“No person may begin constructing a new public drinking water system before receiving written approval of plans and specifications and, if required a business plan from the executive director...”

[http://info.sos.state.tx.us/pub/plsql/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_tloc=&p\\_ploc=&pg=1&p\\_tac=&ti=30&pt=1&ch=290&rl=39](http://info.sos.state.tx.us/pub/plsql/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=290&rl=39)

### C) Responsible Agencies

The TNRCC is the State agency responsible for implementing the regulations, policies and other authorities to ensure compliance with the SDWA.

## II. Control Points

### A) Permit to Construct

In order for a new system to be granted a permit to construct, the proposed system must demonstrate: TMF capacity, the ability to ensure continuous and adequate service, and that

regionalization or consolidation with another retail public utility is not economically feasible.

The system must submit:

- A copy of an application for service from neighboring systems
- Engineering plans
  - A Capacity Worksheet including information on:
    - C Treatment, storage, distribution, and system capacity
    - C Technical knowledge and implementation, certified operators
    - C Operator implementation
    - C Staff and governing board
    - C Authority and decision making
    - C Customer service
    - C Record keeping
    - C Budget
    - C Water supply and capital improvement planning audit
    - C Rates
    - C General financial conditions
    - C Reserve accounts
    - C Revenues, expenses, and major repairs
    - C Insurance
    - C Internal controls
- A CCN (required of water supply corporations and investor owned utilities)
- A Business plan that includes:
  - C Copies of written requests seeking to obtain service from an existing system
  - C A time-line for the construction
  - C Costs and selection of alternative sources of supply
  - C Ownership information
  - C An O & M plan
  - C The qualifications of the organization and each individual associated with the proposed system
  - C Assurances of commitments and resources needed for proper operation and maintenance of the system
  - C Financial assurance including those being offered to capital providers
  - C Other information required by the department to determine the adequacy of the business plan or financial assurance

\* Note: Retail public utilities as defined by TWC 13.002, are required to submit project rate revenue from residential, commercial, and industrial customers; and, pro forma income, expenses, and cash flow statements.

If the system cannot demonstrate TMF capacity, approval to construct will be denied. Any assistance requested by the potential system will be limited to addressing specific questions. The system will be strongly encouraged to join an existing system.

### **III. Program Evaluation**

To track the progress of the new system capacity development program and refine it for the future, the TNRCC will arrange regular conferences between management and staff to ensure compliance with Standard Operating Procedures (SOP) and discuss the effectiveness of SOPs; review compliance data of newly established PWSs and evaluate the effectiveness of tools to test for TMF capacity; review monthly technical assistance reports by a technical assistance provider; track the number of Corrective Action Plans (CAPs) and monitor compliance with the CAPs; evaluate the deficiency scores on annual system inspection reports and track enforcement activity; conduct public outreach, training classes, and stakeholder meetings; and, prepare and submit the governor's report on the effectiveness of the new system capacity development program.

# Utah

## I. Basis of Authority

### A) Statutory Authority

Utah Code Annotated §19-04-104, gives broad authority to the Utah Department of Environmental Quality's (UDEQ's) Drinking Water Board (DWB) to govern capacity development:

“(1) The board may: (a) make rules in accordance with Title 63, Chapter 46a, Utah Administrative Rulemaking Act: ... (v) governing capacity development in compliance with §1420 of the federal Safe Drinking Water Act, 42 U.S.C.A. 300f et seq.; ...”  
<http://yeehaw.state.ut.us/>

### B) Implementing Authority

Utah Administrative Code (UAC) §R309-352-5(2) requires water systems to demonstrate capacity before providing water to consumers:

“Each proposed, new water system must demonstrate that it has adequate technical, managerial, and financial capacity before it may provide water for human consumption...”  
<http://www.rules.state.ut.us/publicat/code/r309/r309-352.htm#H5>

### C) Responsible Agencies

The DWB is empowered to adopt rules governing the design, operation, and maintenance of PWSs in Utah. The Division of Drinking Water (DDW) of the UDEQ acts as the administrative arm of the DWB and implements the rules which they adopt. DDW is required by UAC §309-352-5(5) to conduct capacity assessment reviews. The Utah Public Service Commission (UPSC) must approve rate designs, system investments, and systems financial structures for those water systems under its jurisdiction. The Department of Natural Resources' (DNR's) Division of Water Rights (DWR) approves water rights and administers well construction rules.

## II. Control Points

### A) Plan Approval

New public water systems must submit a Capacity Assessment Review to DDW in conjunction with an overall plan approval procedure before construction may begin. The procedure must include:

- A Project Notification Form including information on who is designing and inspecting the project, whether permits have been applied for, contact information, a construction schedule, and a description of legal responsibility
- Contract documents
- Plans and specifications
- A Business Plan including:
  - Facility Plan that describes the scope of water services provided, any considered alternatives, and the facilities to be constructed; has provisions for extended growth; and assesses current and expected compliance
  - Management Plan that documents rights to construct and maintain the system and staff credentials; and includes an operating plan,
  - Financial Plan showing system revenues, cash flow, income, and debt for construction costs, and O & M costs through five years from start-up

### *B) Operating Permit*

New (as well as existing) public water systems must secure an Operating Permit from DDW before they may put drinking water service into operation. To secure a permit, systems must submit and DDW must receive:

- Certify proper infrastructure disinfection (engineer's statement and lab samples)
- As-built drawings
- Statement of Plan Approval compliance
- Water quality data verification of its compliance with requirements
- Engineer's statement of project deviations from original plan approval
- O & M manual
- Documentation of any previously unsubstantiated components of the plan review process
- Documentation system owner's legal right to use water from the proposed source

### **III. Program Evaluation**

Utah will evaluate the success of their new system capacity program by using its IPS Water System Rating (over 150 deficiency points on a sanitary survey warrants redesignation from *approved* to *not approved* status for a public water system). Systems that have been accountable to the Capacity Assessment requirements (principally new systems) will be compared with all other systems. IPS scores of comparative systems as well as percentage of each of the two groups with *approved* system status will be tracked. The Capacity Assessment program will be deemed effective if those systems accountable to it have a higher IPS *approved* ratio as well as higher overall IPS scores.



## **Vermont**

### **I. Basis of Authority**

#### *A) Statutory Authority*

10 V.S.A. §1672(b)(10) gives the Agency of Natural Resources (ANR) specific authority to ensure that new systems have TMF capacity:

“The secretary of ANR may establish by rule, standards or requirements for:... obtaining a construction permit for a new water system. At minimum, the water system shall demonstrate that it possesses the long-term financial, managerial, and technical capability to operate and maintain a water system in conformance with federal and State regulatory requirements.”

<http://www.leg.state.vt.us/statutes/title10/chap056.htm>

#### *B) Implementing Authority*

The Vermont Water Supply Rule Subchapter 21-15, provides the standards and requirements for implementing the new system capacity program, including the specific requirements for demonstrating TMF capacity:

“All proposed new public community and public nontransient noncommunity water systems must demonstrate technical, managerial, and financial capacity prior to obtaining a construction permit or an operating permit.”

#### *C) Responsible Agency*

The Department of Conservation (DEC), a department within ANR, serves as the lead department for implementing and enforcing the new system capacity program. The Secretary of ANR has officially delegated his responsibility to administer the drinking water program to the Commissioner of DEC.

### **II. Control Points**

#### *A) Construction Permit*

A construction permit must be obtained prior to modifying or constructing a new CWS or new NTNCWS. To apply for a construction permit, systems submit an application, detailed plans and specifications including maps, an engineer’s report, a long range plan (including a 5-year budget, capital replacement plan, fiscal controls, and revenue projections) and, if applicable, a Certificate of Public Good from the Public Service Board.

If upon preliminary review, the applicant does not demonstrate adequate initial capacity, DEC asks the applicant to consider its weaknesses and submit additional information. When the applicant has documented adequate capacity, the construction permit is issued and the system may begin construction.

#### *B) Operations Permit*

At least 30 days prior to the desired start-up date, a new system must apply for an operations permit. Along with the application, systems must submit “as built” drawings, documentation that a certified operator will be operating the system, and an O & M manual. In addition to a description of operation and maintenance procedures, the O & M manual must contain an employee safety program, a source protection plan, customer complaint response procedures, record maintenance procedures, and a contingency plan.

DEC will not issue an operations permit until the system demonstrates adequate capacity.

### **III. Program Evaluation**

Vermont will evaluate all components of compliance for new NTNCWSs and CWSs including operating permits, bacteriological sampling plans, source protection plans, monthly operational reports, consumer confidence reports, GUDI determinations, disinfection, and operator certifications. Compliance with MCLs, monitoring and treatment technique requirements, action levels, and public notices for each contaminant will also be evaluated. Vermont will use its electronic database to compare compliance rates for new water systems with those of systems that began operation prior to October 1, 1999, but are less than 5 years old, to determine the level of new system capacity program success.

# Virginia

## I. Basis of Authority

### A) Statutory Authority

Virginia Code §32.1-172(A) & (B) prohibit the establishment, construction, or operation of a water supply without a written permit from Virginia Department of Health (VDH) and require the submission of TMF information in the application for a permit:

“(A) No owner shall establish, construct, or operate any waterworks, or water supply in the Commonwealth without a written permit from the Commissioner...(B) The application for such a permit....shall include a comprehensive business plan detailing the technical, managerial, and financial commitments to be made by the owner to assure that system performance requirements for providing the water supply will be met over the long term.”

<http://legl.state.va.us/cgi-bin/legp504.exe?000+cod+32.1-172>

### B) Implementing Authority

The Virginia Administrative Code §12VAC5-590-190 requires a waterworks<sup>14</sup> facility to secure construction and operation permits before commencing construction and operation:

“No owner or other person shall cause or allow the construction at any waterworks or water supply without a written construction permit from the commissioner...furthermore, no owner or other person shall cause or permit any waterworks or water supply to be operated without a written operation permit issued by the commissioner....”

<http://legl.state.va.us/cgi-bin/legp504.exe?000+reg+12VAC5-590.190>

### C) Responsible Agencies

The VDH has jurisdiction over all matters concerning the implementation of capacity development programs for all water systems in Virginia. The State Corporate Commission is responsible for CCNs which are required for systems serving (or planning to serve) 50 or more persons.

## II. Control Points

### A) Construction Permit

There is a five-step application process that each potential waterworks must complete before a permit to construct will be issued. A complete application includes:

---

<sup>14</sup>Waterworks means a public water system as defined in federal regulations.

- Notification of intent
- Preliminary engineering conference
- Business Plan which includes:
  - Background information on the qualifications of persons involved with the system
  - O & M information
  - Technical data that supplements the engineering report
  - Financial data projecting expenses and revenues and identifying sources of funds and financial controls
- Preliminary engineering report (PER)
- Final plans and specifications

*B) Operating Permit*

After construction, the waterworks owner must submit a statement to the field office that includes a statement by a licensed professional engineer that the construction work was completed in accordance with the approved plans and specifications. The engineer must base the statement on inspections of the water works both during and after the construction. Upon receipt of the statement, VDH will issue a permit to operate.

**III. Program Evaluation**

To track the progress of the new system capacity development program and to refine it for the future, the VDH requires the submission of a report by systems which summarizes a new system's compliance and its cash flow six months after commencing operation. The report must be submitted annually thereafter. VDH will use the reports and the SDWIS database to track new waterworks' monitoring compliance rates.

## Washington

### I. Basis of Authority

#### A) Statutory Authority

1) The Revised Code of Washington (RCW) §43.20.050 (2) gives the Department of Health (DOH) broad authority over PWS planning:

“In order to protect the public health, the state board shall: (a) adopt rules necessary to assure safe and reliable public drinking water and to protect the public health. Such rules shall establish requirements regarding: ... (iv) Public water system planning...”

<http://www.mrsc.org/rcw.htm>

2) RCW §70.119A.100(4) gives DOH authority to require annual operating permits:

“The operating permit requirements shall be administered by the department...the department may impose permit conditions, requirements for system improvements, and compliance schedules...”

<http://www.mrsc.org/rcw.htm>

#### B) Implementing Authority

1) Washington Administrative Code (WAC) §246-290-100 requires all new systems to submit water system plans (WSPs) to DOH for approval:

“Purveyors of the following categories of public water systems shall ensure the development and submittal of a water system plan for review and approval by the department... (f) All new systems.”

<http://www.mrsc.org/wac.htm>

2) WAC §246-290-110 & 120 require new water system purveyors to submit project reports and construction documents to DOH for approval prior to installing a new system:

“The purveyor shall submit project reports [and construction documents] to the department for written approval prior to the installation of any new water system....”

<http://www.mrsc.org/wac.htm>

3) WAC §246-290-130 (1) requires parties seeking to use a new source as a public water supply to obtain approval from DOH:

“No new source, previously unapproved source, or modification of an existing source shall be used as a public water supply without department approval.”

<http://www.mrsc.org/wac.htm>

### *C) Responsible Agencies*

Washington DOH is responsible for reviewing and approving water system planning documents and applications for operating permits unless this responsibility has been delegated to the local health jurisdiction. WAC §246-290-030 allows DOH and the health officer for each local health jurisdiction (LHJ) to develop a joint plan of operation (JPO). If a LHJ has agreed to perform the duties of the drinking water program, including approving new systems, the JPO must indicate that the LHJ will enforce rules and regulations no less stringent than DOH.

An MOU between the DOH and the Department of Ecology (DOE) states that a WSP must be in place with DOH before the DOE will issue the system a water right permit. Local governmental bodies with jurisdiction over development and building permits must assess the “adequacy” of water supplies when considering short plan subdivisions or individual building permit applications.

## **II. Control Points**

### *A) Construction Approval*

New systems must submit and DOH must issue approvals for:

- C A WSP that includes:
  - C A description of the water system, including its ownership and management, its background, an inventory of any existing facilities, any related plans, service area characteristics, and service area policies
  - C Basic planning data, including current water use and data reporting, current and future land use, expected future population and number of service connections, and a demand forecast for six and 20 years
  - C A analysis of the system’s design standards, water quality, source, treatment, storage, distribution, a summary of system deficiencies, and analysis of possible improvements
  - C A water conservation program, water right analysis, source analysis, and water shortage response plan
  - C A wellhead protection program (if applicable) and a watershed control program
  - C An O & M program
  - C Distribution facilities design and construction standards
  - C A capital improvement program
  - C A financial program including identification of cost of capital and non-capital improvements, identification of annual O & M expenses, a six-year budget, a discussion of water rates, and a “financial viability test”
  - C Satellite management program

- C Proof of a Satellite Management Agency (SMA). DOH will not allow the creation of a new system unless that system is owned or operated by an approved SMA. If an SMA is not available, the new system must demonstrate it has “sufficient management and financial resources to provide safe and reliable service. ”
- C A description of critical water supply service areas. No new systems may be created within existing Critical Water Supply Service Area boundaries without specific authorization from DOH.
- C Project reports and construction documents. Purveyors of new water systems must receive approval for project reports and construction documents before they can begin construction. These documents will not be reviewed until after the WSP has been submitted.

The scope and detail of each of these items will depend on the system’s size and complexity.

### *B) Operating Permit*

New PWSs are required to submit an application for an operating permit. Permits are only granted to new systems after they have received all required departmental approvals relating to water system operation. In addition to the four approvals above, systems must obtain source approval and comply with operator certification requirements. Systems lacking capacity may be issued a permit with conditions or may be denied the permit.

## **III. Program Evaluation**

Washington annually reviews the effectiveness of five elements of the capacity development program: (1) the percentage of systems created that year that have a current, approved WSP; (2) the total number of approved SMAs operating in the State; (3) the percentage of new systems requiring a certified operator that satisfy the certified operator requirement; (4) the number of established critical water supply areas; and, (5) the percentage of new sources (serving new systems) in use that have department approvals. A goal or performance measure has been set for each reviewed element. DOH evaluates the need to make program changes if an element does not meet its goal.

## West Virginia

### I. Basis of Authority

#### A) Statutory Authority

West Virginia Code (WVC) §16-13C-2(b) gives specific authority to the West Virginia Division of Health (WVDH) to establish requirements for capacity development:

“The Division of Health shall propose rules...that shall include, but are not limited to, establishing requirements for capacity development....”

[http://www.legis.state.wv.us/scripts/as\\_web.exe?total2+N+8455116](http://www.legis.state.wv.us/scripts/as_web.exe?total2+N+8455116)

#### B) Implementing Authority

1) West Virginia Administrative Rules (WVAR) §64-61-4.1 prohibits the construction of a PWS without first obtaining a permit from WVDH:

“A person shall obtain approval in writing from the director before establishing a public water system, and the system shall be installed or established in accordance with the plans, specifications, and instructions issued by, or approved in writing by the director.”

<http://www.wvdhhr.org/oehs/eed/regulations.html>

2) WVAR §64-61-4.2 requires the application for a permit to construct to include a demonstration of TMF capacity:

“The engineer, owner, or both shall provide proof to the director that the owner has the technical, managerial, and financial capacity to operate and maintain the new system.”

<http://www.wvdhhr.org/oehs/eed/regulations.html>

#### C) Responsible Agencies

The WVDH has been given authority to implement the capacity development program and adopt regulations to address the capacity development provisions of the SDWA. The Public Service Commission (PSC) has authority to review public utilities for the purpose of issuing CCNs and to review rates. The State Revolving Fund division of WVDH performs a review of the required business plan to ensure the adequacy of the system’s revenues, financial resources, and managerial structure.



## **II. Control Points**

### *A) Permit to Construct*

Before a system is given permission to construct WVDH must review and approve:

- Plans and specifications
- A business plan
- Operator requirements

Systems under the jurisdiction of PSC, must submit an application for a CCN which includes: documentation on the need for the project, the approval of it's plans and specifications, and the proof of a permit to construct. The PSC also reviews the proposed rate structure to ensure sufficient funding for operation, maintenance, and debt retirement.

### *B) Permit to Operate*

Following construction and the issuance of a CCN, if applicable, a system must have a final inspection prior to being granted approval to operate.

## **III. Program Evaluation**

To track the progress of the new system capacity development program and to refine it for the future, the WVDH will conduct annual site inspections (sanitary surveys) to determine compliance with drinking water regulations; confirm the authenticity of certified operator status; review required financial reports (PSC); track technical assistance requests/reports, and; track monitoring compliance rates using the SDWIS database.

## Wisconsin

### I. Basis of Authority

#### A) Statutory Authority

Wisconsin Statute §281.17(9) gives the Wisconsin Department of Natural Resources (WDNR) authority to assess capacity:

“The department may require owners of water systems to demonstrate the technical, managerial and financial capacity...”

<http://www.legis.state.wi.us/rsb/stats.html>

#### B) Implementing Authority

Wisconsin Administrative Code (WAC) NR §809.931 requires new water systems to develop and maintain capacity:

“All new community and non-transient noncommunity water systems constructed after September 1, 1999, shall develop and maintain adequate financial, managerial and technical capacity to meet the requirements of this chapter and 42 USC 300f to 300j-26.”

<http://folio.legis.state.wi.us/>

#### C) Responsible Agency

The primary implementing agency is the WDNR. The Public Service Commission (PSC) must approve municipal system water rates.

### II. Control Points

#### A) Capacity Approval

All proposed community and noncommunity water systems in Wisconsin are required to pass a plan review and a capacity evaluation process. DNR has developed special forms to help other-than-municipal (OTM) and NTNCWSs system owners provide the necessary information for the capacity evaluation. The following information is required as part of the Capacity Evaluation Form:

#### Technical Capacity

- C Facility information, including system name and address and contact information
- C Water system information including the size, extent, and complexity of the water system
  - Well construction information
  - Water quality/treatment information

### Managerial Capacity

- Operator qualifications
- Status of all permits and approvals related to construction of a water system
- Certification of owner's responsibilities and water system costs

### Financial Capacity

- Funding sources
- Revenue sources for monitoring, O & M, and emergencies
- Description of the method of payment for construction
- How user charges will be established

Approval can be denied if the Capacity Evaluation is incomplete, adequate capacity is not demonstrated, design and location standards are not met, or other applicable requirements are not met.

### **III. Program Evaluation**

Systems will be tracked and evaluated using their PWSID number along with their plans and specifications approval numbers. New systems will be evaluated with results summarized to look for progress.

# Wyoming

## I. Basis of Authority

### A) Statutory Authority

Wyoming Statutes §16-1-303(e) delegates to the Wyoming Department of Environmental Quality (WDEQ) authority to require a demonstration of capacity from all new systems:

“The department shall:... (vi) Ensure that all new or modified community water systems and new or modified nontransient noncommunity water systems commencing operation after October 1, 1999, demonstrate capacity development capabilities....”

<http://legisweb.state.wy.us/titles/99titles/title16/t16chp1.htm>

### B) Implementing Authority

Wyoming Water Quality Rules and Regulations §2286-5 requires new systems to demonstrate capacity:

“All new or modified community and nontransient noncommunity water systems shall demonstrate capacity development by accomplishing the following....(b) Completing a system assessment of the managerial, technical, and financial aspects of the system using capacity assessment worksheets provided by the administrator.....”

[http://soswy.state.wy.us/cgi-win/sscgi\\_3.exe?3638](http://soswy.state.wy.us/cgi-win/sscgi_3.exe?3638)

### C) Responsible Agency

The responsibility or primacy for enforcing the drinking water standards in Wyoming remains with the U.S. EPA Region 8. WDEQ administers the capacity development program.

## II. Control Points

### A) Construction Permit

The WDEQ requires systems to obtain a Construction Permit prior to construction or modification of a water system. Permits will not be issued until TMF capacity has been demonstrated and all conflicts within a Source Water Protection Plan have been addressed.

All new or modified community and nontransient noncommunity water systems shall demonstrate capacity development by accomplishing the following:

- Complying with the requirements for certified operators or have a division approved compliance schedule in place to meet the requirements

- Completing a system assessment of the managerial, technical, and financial aspects of the system using capacity assessment worksheets provided by the administrator
- Developing a corrective action plan and implementation schedule if deficiencies are identified by the division as a result of the capacity development assessment
- Providing a plan to assure sufficient financial resources to cover system operation and maintenance costs including debt service if financial capability deficiencies are identified
- Demonstrating compliance with standards for construction, permitting, and minimum design criteria for public water supplies

### *B) Operations and Maintenance Manual*

An O & M manual must be approved by the WDEQ before treatment or pumping facility startup. This manual must include:

- A description of the facilities
- An explanation of startup and normal operation procedures
- A routine maintenance program
- A records and reporting system
- A sampling and analyses program
- Staffing requirements
- Identification of potential pollution sources
- A safety program
- Emergency plan and operating procedures
- Manufacturer's manuals

### **III. Program Evaluation**

To evaluate the success of their capacity development program for new systems, the WDEQ will track compliance information in a database to compare new systems who have met capacity requirements to previously existing systems which did not have to meet the requirements. If the new system compliance rates are better than existing system rates, the program will be considered successful. If the existing system rates are better or equal to new system rates, the capacity program will be changed to improve new system compliance rates.

## Appendix A

**Description of Factors for Table 1**

Preliminary considerations	Refers to preliminary meetings, studies (i.e., consideration of alternatives), and other requirements such as the attainment of land easements, etc.
Local Government Approval	Refers to the requirement that new systems obtain approval from the local government, or governing body prior to the making an application with the State.
Engineering report	Refers to a comprehensive technical and analytical document prepared by a licensed Professional Engineer that describes a water system from consideration of need, to the actual mechanics of how it will operate. For some States, managerial and financial factors may be required as part of the Engineering report. These factors are not specifically addressed in Table 1.
Adequacy of source	Refers to documented procedures to verify source water quality and quantity.
Source water protection	Refers to the existence of a plan to protect source water integrity.
Capital Improvement Plan	Refers to a planning document that specifies all needed capital projects, the reason for each project, and associated costs.
Infrastructure adequacy	Refers to a system's treatment, storage, distribution, and related infrastructure facilities and its ability to adequately provide safe drinking water to consumers.
On-site inspection	Refers to on-site inspection of facilities by State official.
Operator certification/training	Refers to the existence of a certified operator and/or operator training.
O & M procedures	Refers to detailed written procedures for operating and maintaining a water system. Includes such things as monitoring plans.
Emergency Response Plan	Refers to a plan that defines how a system responds in "routine" and "disaster" emergency situations. Lists procedures (including public notification) to follow when emergencies occur.
Plans and specifications	(includes as-built plans and specifications)
Organizational structure	Refers to system hierarchy.
Planning for changing community needs	Refers to local government, utility, or system's attempt to project changes in the service area and/or customer population over the long-term, Includes projections on population growth.
Record keeping and reporting	Refers to the methods by which a system maintains records and reports monitoring data.
Public outreach programs	Refers to public education, solicitation of public input in decision-making, etc.
Knowledge of technical assistance opportunities	Refers to a system owner/operator's knowledge of technical assistance opportunities, either through TA providers, additional education, by working with nearby water systems, etc.
Revenue sufficiency	Refers to a system's ability to cover water system expenses with revenues.
Ability to repay existing and projected debt	Refers to a system's ability to adequately cover existing and future debt based on current water system revenue.
Rate & billing information	Refers to rate structure used and amount charged for service. Includes affordability considerations and metering.
Credit worthiness	Refers to a water system's operating ratio. An operating ratio characterized by "revenues/expenses." Credit worthiness ratios vary among States.
Annual budgeting	Refers to an annual financial plan or budget which accounts for all operations and management expenses.
Capital budgeting (reserve account)	Refers to budgeting for future capital improvements.
Emergency budgeting	Refers to "cash budgeting" or budgeting for an immediate need resulting from an emergency situation.
Long-range financial planning	Refers to budgeting for five or more years into the future. For some States managerial and financial factors may be required as part of the Engineering report. These factors are not specifically addressed in Table 1.
Designation of Satellite Ownership/Operations	Refers to an outside entity with the ability to take over management, and/or operational control should a new water system become unable to supply adequate and safe drinking water.

**Table 1. Summary of Control Points and Factors Used to Assess Technical, Managerial, and Financial Capacity**

State	Control Points	Technical Factors												Managerial Factors							Financial Factors									
		Preliminary Plans	Local Government Approval	Consideration of Alternatives/ Consolidation Engineering Report*	Adequacy of Source	Source Water Protection	Capital Improvement Plan	Infrastructure Adequacy	Inspection	Operator Certification or Training	O & M Procedures	Emergency Operating Procedures	Plans & Specifications	Identification of System Owners and Manager	Experience of Owners, Managers, Chief Elected	Organizational Structure	Planning for Changing System Needs	Record Keeping and Reporting System	Public Outreach Programs	Procedure for Addressing Customer Concerns	Knowledge of Technical Assistance Opportunities	Revenue Sufficiency	Ability to Repay Existing and Projected Debt	Rate/Billing Information	Credit Worthiness	Annual Budgeting	Capital Budgeting (Reserve Accounts)	Emergency Budgeting	Designation of Satellite Owner / Operator	Long-Range Financial Planning*
AL	Water Supply Permit			T	T	T					T		T									T		T		T				
	Permit to Construct								T																					
AK	Construction Approval					T	T			T	T	T	T	T					T				T	T	T	T	T	T		
	Operation Approval <sup>1</sup>																													
AZ	Approval to Construct						T	T			T	T	T		T		T						T		T					T
AR	Permit to Construct	T		T	T	T		T	T	T			T				T													T
	Permit to Operate																	T												
CA	Operating Permit <sup>2</sup>			T		T		i		T	(T)	(T)	(T)		T	T	T	T	T							T	(i)			T
CO	Construction Approval		T		T	T		T	T		T	T	T	T	T	T	T	T	T				T	T	T		T	T	T	T
CT	Certificate of C&N			T		T		T	T		T	T	T	T	T								T				T	T	T	T
	New Source Approval					T																								
DE	Approval to Construct				T	T	T				T	T		T		T		T					T		T		T			
	Approval to Operate					T					T	T													T					
FL	Construction Permit		T		T	T					T	T		T	T	T		T					T			T				
	Letter of Clearance									T				T																
GA	Construction Permit <sup>3</sup>		k	k	T							T		T															k	T





State	Control Points	Technical Factors												Managerial Factors							Financial Factors											
		Preliminary Plans	Local Government Approval	Consideration of Alternatives/ Consolidation Engineering Report*	Adequacy of Source	Source Water Protection	Capital Improvement Plan	Infrastructure Adequacy	Inspection	Operator Certification or Training	O & M Procedures	Emergency Operating Procedures	Plans & Specifications	Identification of System Owners and Manager	Experience of Owners, Managers, Chief Elected	Organizational Structure	Planning for Changing System Needs	Record Keeping and Reporting System	Public Outreach Programs	Procedure for Addressing Customer Concerns	Knowledge of Technical Assistance Opportunities	Revenue Sufficiency	Ability to Repay Existing and Projected Debt	Rate/Billing Information	Credit Worthiness	Annual Budgeting	Capital Budgeting (Reserve Accounts)	Emergency Budgeting	Designation of Satellite Owner / Operator	Long-Range Financial Planning*		
ME	Operations Permit				T	T		T		T	T	T	T	T	T							T		T		T	T					
MD	Permit to Construct				T	T		T		T	T	T	T	T								T		T		T	T	T				
	Permit to Operate																															
MA	Source Approval	T		T	T	T	T	T	T	T	T	T	T	T		T	T	T				T	T	T		T						
MI	Construction Permit	K	K	T	T	T		T					T																		T	
	Final Inspection								T	T	T	T	T				T		T					T	T		T	T	T		T	
MN	Plan Approval						T			T			T			T								T								
	Inspections			T						T	T	T	T																			
MS	CPN																															
	Construction Approval																															
MO	Construction Permit			T	T	T	T		T	T	T	T		T		T	T		T			T	T	T		T	T	T			T	
	Permit to Dispense				T	T	T		T	T	T	T	T	T		T	T	T	T	T			T	T	T		T	T	T		T	
MT	Design Report				T	T				T	T	T	T	T	T		T	T	T			T	T	T				T	T		T	
	Letter of Accordance																															
NE	Approval of Plans & Specs				T					T				T	T													T		T	T	
	Permit to Operate									T																						

State	Control Points	Technical Factors												Managerial Factors							Financial Factors												
		Preliminary Plans	Local Government Approval	Consideration of Alternatives/ Consolidation Engineering Report*	Adequacy of Source	Source Water Protection	Capital Improvement Plan	Infrastructure Adequacy	Inspection	Operator Certification or Training	O & M Procedures	Emergency Operating Procedures	Plans & Specifications	Identification of System Owners and Manager	Experience of Owners, Managers, Chief Elected	Organizational Structure	Planning for Changing System Needs	Record Keeping and Reporting System	Public Outreach Programs	Procedure for Addressing Customer Concerns	Knowledge of Technical Assistance Opportunities	Revenue Sufficiency	Ability to Repay Existing and Projected Debt	Rate/Billing Information	Credit Worthiness	Annual Budgeting	Capital Budgeting (Reserve Accounts)	Emergency Budgeting	Designation of Satellite Owner / Operator	Long-Range Financial Planning*			
NV	Operating Permit		K			T	T	T		T	T	T		T		T	T	T				T		T		T	T	T	T	T	T		
NH	Concept Approval			T																													
	Construction Approval					T		T	T	T	T		T		T							T		T		T					T		
	Operational Approval								T			T											T										
NJ	Construction Permit			T	T	T			T			T	T	T	T								T								T		
	Operating Permit					T			T				T	T	T								T								T		
NM	Approval to Construct	T		T	T	T	T		T	T		T	T		T				T		T	T	T	T	T						T		
NY	Approval Of Plans and Specs				T				T	T	T	T							T			T											
	New System Permit	T		T	T	T	T					T	T		T	T																	
	Approval Of Proposed Rate					T											T						T	T									
	Operator Certification									T																							
	Permission of State Comptroller	T		T												T							T	T									
NC	Authorization to Construct			T	T	T				T	T		T	T	T																	T	
	Final Approval										T	T	T																				

State	Control Points	Technical Factors											Managerial Factors							Financial Factors										
		Preliminary Plans	Local Government Approval	Consideration of Alternatives/ Consolidation Engineering Report*	Adequacy of Source	Source Water Protection	Capital Improvement Plan	Infrastructure Adequacy	Inspection	Operator Certification or Training	O & M Procedures	Emergency Operating Procedures	Plans & Specifications	Identification of System Owners and Manager	Experience of Owners, Managers, Chief Elected	Organizational Structure	Planning for Changing System Needs	Record Keeping and Reporting System	Public Outreach Programs	Procedure for Addressing Customer Concerns	Knowledge of Technical Assistance Opportunities	Revenue Sufficiency	Ability to Repay Existing and Projected Debt	Rate/Billing Information	Credit Worthiness	Annual Budgeting	Capital Budgeting (Reserve Accounts)	Emergency Budgeting	Designation of Satellite Owner / Operator	Long-Range Financial Planning*
ND	Construction Approval			T	T				T		T	T		T		T	T					T		T		T	T			
	Letter of Approval													T																
OH	Approval of Plans			T	T				T				T	T	T	T			T	T		T	T	T		T	T		T	
OK	Permit to Construct	T		T	T	T			T				T	T		T									T	T			T	
	Permit to Operate								T				T																	
OR	Construction Approval												T																	
	Operating Approval <sup>4</sup>				i	T	i	i	i		T	i				i		T				T		T		T	i			
PA	Construct Permit				T	T							T	T			T					T			T				T	
	Operating Permit										T	T		T																
PR	Development Endorsement				T	T			T		T	T				T				T										
	Construction Endorsement												T	T	T						T				T	T			T	
	Operation Endorsement												T	T	T			T							T				T	
RI	Licensure to Operate					T	T	T	T			T	T	T								T	T			T	T	T		
SC	Construction Permit	T	T	T									T	T	T							T	T		T				T	





**Table 2. Technical, Managerial, and Financial Capacity Assessment Comparison**

State	Statute	Regulation	Control Points					
			Construction			Operation		
			Pre Approval			Pre Approval		
			T	M	F	T	M	F
AL	Code of Alabama Acts 1977, No. 805, p. 1389, s. 17	AAC §335-7-4-.06	T	T	T	T	T	T
AK	AS §46.03.720	18 AAC 80.207, 18AAC 80.207	T	T	T	T	T	T
AR	Arkansas Annotated Code §20-7-109	Rules and Regulations Pertaining to Water Systems (§VII, §XX, §XXI)	T	T	T	T		
AZ	ARS §49-353.A	AAC §R18-4-602	T	T	T			
CA	CHSC §116540(a)	CHSC §116525(a)				T	T	T
CO	Colorado Revised Statutes §25-1-107(1)(x)	Colorado Primary Drinking Water Regulations §§2.1.3 and 2.1.4	T	T	T			
CT	CGS §16-262m CGS §8-25a CGS §25-33(b)	CSA §16-262m PHC §19-13-B102	T	T	T			
DE	Delaware House Bill 427 (Title 16.1.122.(5))	Regulations Governing Public Drinking Water §22.211A, B and §22.212A, B	T	T	T	T	T	T
FL	FS 403.8615(1)	FAC §62-555.525(2)	T	T	T	T	T	T
GA	GA Code annotated s. 12-5-179(b)	EPD Rules 391-3-5-..04(7)(b) 391-3-5-.17(3)	T	T	T	T	T	T
HI	HRS §340E-2.5	HAR §11-20-30 and §11-20-29.5	T	T	T	T	T	T
ID	Idaho Code, §39-105(3)(e) and 50-1326	IDAPA §16.01.08.549, §37.03.09.035.01, and §37.03.09.045.01	T	T	T			

State	Statute	Regulation	Control Points					
			Construction			Operation		
			Pre Approval			Pre Approval		
			T	M	F	T	M	F
IL	Illinois Compiled Statutes §415 ILCS 5/15	Illinois Administrative Code, Subtitle F, Subpart G, §652.701	T	T	T	T	T	T
IN	Indiana Code §13-18-21-3(d)	327 Indiana Administrative Code 8-3-1.1	T	T	T			
IA	IC Chapter 455B.173(3) and 174(4a)	567 IAC 43.3(3), 8(a), and 42.2(2)	T	T	T	T	T	T
KS	KSA §65-171m; KSA §65-163	§28-15-16(a)(1)	T	T	T		T	
KY	XII KRS 151.630; XII KRS 151.634; KRS 278.020	401 KAR 8:100; 807 KAR 5:001, §9	T	T	T			
LA	Louisiana Regular Session Statutes §40:4(A) and 40:5	LAC §48:V.7713, SC §12.002-2	T	T	T	T	T	T
ME	22 MRSA §2612-A	Maine Drinking Water Rules 10-144, Chapter 231, Section 3.D				T	T	T
MD	Maryland Annotated Code §9-417	CoMAR §26.04.01.36(c) and 03.12.08	T	T	T	T		
MA	MGL c.111, s. 160	310 CMR 22.04	T	T	T	T	T	T
MI	Michigan Compiled Law (Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399)) §§ 325.325.1002(b) and (n), 325.1003b(1)(a) and (2), 325.1004(2) and (4), and 325.1005(1)(d), 325.1008, 325.1010, 325.1014(1), and 325.1015(1), (2), and (4).	Michigan Administrative Code (Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399) Administrative Rules) R 325.10504 R 325.10505, and R 325. 11305 et seq.	T	T	T	T	T	T

State	Statute	Regulation	Control Points					
			Construction			Operation		
			Pre Approval			Pre Approval		
			T	M	F	T	M	F
MN	1999 Minnesota Statutes §144.383	Minnesota Rule 4720.0012 Subpart 1, and 4720.0010	T	T	T	T	T	T
MS	MC 41-26-8(2)	MSBH, Environmental Regulations, Division 300, Part 301	T	T	T			
MO	MoRS §640.115.3	§10CRS60-3.030(2)(b), .010(1)(A) and (D)	T	T	T	T	T	T
MT	Montana Code Annotated §§ 75-6-103 75-6-121	Administrative Rules of Montana §17.38.101 through §17.38. 607	T	T	T	T	T	
NE	NS §71-5305.01	§179 NAC 2(007) and (015)	T	T	T	T	T	T
NV	17 NRS 445A.860	NAC 445A.13.2 and 445A.14				T	T	T
NH	RSA 485:3 XII; RSA 485:8	Env-Ws 370.04; Env-Ws 371	T	T	T	T	T	T
NJ	NJSA 58:12A-4.c.(5)(b)							
NM	New Mexico Statute §74-1-7	§20NMAC7.1.502(D)(2) and (6)	T	T	T			
NY	Public Health Law 225; Environmental Conservation Law 15-1501 and 1503	Title 10 Subparts 5-1.22 and 5.4; 6NYCRR Part 601	T	T	T			
NC	NCGS 130A-317(c)	15A NCAC 18C §.0300	T	T	T	T	T	



State	Statute	Regulation	Control Points					
			Construction			Operation		
			Pre Approval			Pre Approval		
			T	M	F	T	M	F
ND	North Dakota Administrative Code §61-28.1-03	North Dakota Administrative Code §33-17-01-19	T	T	T	T	T	
OH	Ohio Revised Code §§6109.24 and 6109.07	Ohio Administrative Code §3745-87-02	T	T	T			
OK	Oklahoma Statute §27A-2-6-302 to 305	State Regulations §252:625-1-8 and -11	T	T	T	T		
OR	ORS 448.131	OAR §333-061-0060 and §333-061-0061	T	T		T	T	T
PA	Laws of PA Act 1984-43 (§5(b)(5), §7(a) and (b))	§25PACode 109.501(a) and (c) and 109.504 and 505	T	T	T	T	T	
PR	Act No. 5 and Act No. 32	Regulation No. 50	T	T	T	T	T	T
RI	RIGL §46-13-18; RIGL §46-13-2	R §46-13-DWQ				T	T	T
SC	SCCL §45-55-120(D)	SCCR §61-58(B)(141); SCCR §61-58.1	T	T	T	T		
SD	South Dakota Codified Laws Annotated §34A-3A-25	South Dakota Administrative Rules §74:04:09	T	T	T	T	T	
TN	TCA §69-221-704(2)(E); TCA §221-706(a)(3)	DEC Rule 1200-05-1-.04(70); DEC Rule 1200-05-1-.17(37); DEC Rule 1200-05-1-.17(19); DEC Rule 1200-05010.04 (2) and (3)	T	T	T	T	T	T
TX	Texas Health and Safety Code §341.0315; 341.035	TAC §30:290.39(h.1) and (h.3); TWC §13.242	T	T	T	T		

State	Statute	Regulation	Control Points					
			Construction			Operation		
			Pre Approval			Pre Approval		
			T	M	F	T	M	F
UT	Utah Code Annotated 19-04-104 and 19-5-104	Utah Administrative Code §R309-352-5(2)	T	T	T	T	T	
VT	10 VSA §1672(b)(10) 10 VSA §1685	Vermont Water Supply Rule Chapter 21, Subchapter 21-15	T	T	T	T	T	
VA	Virginia Code §32.1-169 and 172	§12VAC5-590-190	T	T	T	T	T	T
WA	RCW 43.20.05(2) and 70.119A.100(4)	WAC 246-290-100 through 246-290-130 and 246-293-190	T	T	T	T	T	
WV	West Virginia Code §16-13C2(b); WVC 24-2-11	§64CSR61-4.1, -4.2, -4.6	T	T	T	T		
WI	Wisconsin Statute §281.17(9)	Wisconsin Administrative Code §§NR 809.931 and NR 809.933	T	T	T	T	T	
WY	Wyoming Statutes §16-1-303(e)	Wyoming Current Rules §2285-5	T	T	T	T	T	