Public Water System Capacity Development

The Safe Drinking Water Act (SDWA) requires a number of compliance actions by public water systems (PWSs) to ensure they are providing safe drinking water. These actions can create a sizeable investment in facilities and higher operational expenses. Systems that do not accomplish these requirements are in violation of the SDWA and are subject to legal enforcement actions and penalties at both the state and federal levels.

Capacity development is a program that aims to help public water systems strengthen their ability to consistently supply safe drinking water to their customers. The program focuses on assisting system owners and operators, particularly small water systems, with improving their technical abilities, managerial skills, and financial capabilities. These three factors are abbreviated by the acronym “TMF.”

The Drinking Water and Groundwater Bureau (DWGB) within NHDES undertakes numerous efforts to provide and improve the TMF capacity of existing water systems. These efforts include extensive technical assistance, operator and management training, sanitary survey follow-up, and financial assistance.

NHDES’ capacity development program is a more proactive and positive approach, rather than having an after-the-fact, “regulate and enforce” focus. The program utilizes many of the components from Asset Management such as preparing and implementing asset inventory plans and financial budgets. The tables below outline the structure of the program by describing the TMF approach including the **Technical**, **Managerial** and **Financial** Capacities.

<table>
<thead>
<tr>
<th>Elements of Technical Capacity</th>
<th>Description</th>
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<tr>
<td><strong>Source Water Adequacy</strong></td>
<td>The source is adequate to meet current and future demands, is of generally good quality and is adequately protected.</td>
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<tr>
<td><strong>Infrastructure Adequacy</strong></td>
<td>Infrastructure adequacy and improvement means the system can provide water that meets SDWA standards because its infrastructure, from source to distribution, is in good condition and has not exceeded its useful life.</td>
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System Operations
Technical Knowledge and Implementation

System employs a certified operator who understands the benefits of public health protection, knows the applicable drinking water standards, understands the system’s technical and operation characteristics, and is successfully implementing the system’s operation and maintenance plan.

Elements of Managerial Capacity

Ownership Accountability
Ownership accountability ensures that the system owners are clearly identified and can be held accountable for the system. Identification of roles and responsibilities can help prevent confusion, mistakes and misunderstandings in the daily operation of the system. Owners are actively involved in capital improvement and strategic planning to meet short and long-term needs of the system.

Staffing and Organization
System operators and managers should be clearly identified and their roles and responsibilities should be clearly explained. System personnel should have adequate expertise to manage operations, understand the regulatory requirements, and have the necessary licenses and certifications. Another aspect of staffing and organization is ensuring the ongoing training of managers and operators.

Effective External Linkages
Water system personnel need to interact regularly with their customers and with regulators. System personnel also need to know where to get technical or financial help. Building relationships with assistance providers, regulators, and water users will increase a system’s ability to solve problems as they occur.

Elements of Financial Capacity

Revenue Sufficiency
Revenue sufficiency is the cornerstone of a well-run system. Revenues from rates and charges should cover system expenses. A system should know, and be able to measure, all costs and revenues. Rates should reflect the true cost of service.

Credit Worthiness
Having an established credit rating will allow the system to access funds for an emergency or for implementation of a capital improvement plan. Financial institutions will look at the health of the system, as measured through indicators, ratios and ratings, previous credit records, and proof of repayment is assured, when determining whether the system is a good credit risk. Having access to capital through public or private sources is one element of a financially capable system.

Fiscal Management and Controls
Sound financial management allows a system to maintain efficient and effective operations. This includes keeping adequate books and records, using appropriate budgeting, accounting, and financial planning methods, and managing revenues effectively.

Capacity development focuses on resolving the challenges that many water systems (and particularly small systems) face. Such challenges include, but are not limited to, the following:

- **Regulatory compliance**: Changes to regulations can introduce potential changes to treatment, monitoring, and reporting. Changes to regulatory requirements can also lead to the need to update operator knowledge.
- **Infrastructure needs**: Long-operating water systems may need to replace aging infrastructure and changing regulations or population sizes can also result in the need for new or additional infrastructure.

- **Insufficient revenue**: Year-to-year differences in state, national, and local funds can lead to shortfalls in the funding needed to keep a PWS in compliance.

- **Aging workforce**: Retirements can lead to staffing shortages and subsequently greater training needs.

- **Training needs**: Changing PWS workforce compositions and regulations can introduce the need for additional training so that operators maintain the knowledge base needed to stay compliant.

- **Water security**: Preparation for natural disasters, cyber threats, and malevolent acts need appropriate planning, training, and infrastructure.

- **Declining populations**: Population loss can lead to personnel/staffing issues, fiscal constraints through the loss of tax revenue, and a loss in economies of scale.

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**Capacity Development Review**

The Drinking Water Program requires that all water systems receiving Drinking Water State Revolving Loan Funds (DWSRF) undergo a Capacity Development Review. A Capacity Development Review assesses the technical, managerial, and financial capacity of a water system to ensure that they have sufficient capacity to proceed with a DWSRF loan.

**Capacity Development Funding**

The Drinking Water Program has funding for improving technical, managerial and financial system capacity. For more information, visit the [Drinking Water State Revolving Fund webpage](#).

**For Additional Information**

Please contact Luis Adorno at (603) 271-2472 or [Luis.S.Adorno@des.nh.gov](mailto:Luis.S.Adorno@des.nh.gov), or visit the [PWS Capacity Development webpage](#).

Note: This fact sheet is accurate as of June 2021. Statutory or regulatory changes, or the availability of additional information after this date may render this information inaccurate or incomplete.