

**New York State Department of Health  
Bureau of Water Supply Protection**

**FFY 2023 Public Water System Capacity Assessment Form**

**Definitions Guide**

**Capacity Development Background**

Water system capacity is the ability to plan for, achieve, and maintain compliance with all applicable drinking water standards. There are three components to capacity: technical, managerial, and financial. Technical capacity refers to a water system's ability to operate and maintain its infrastructure. Managerial capacity refers to the expertise of the water system's personnel to administer the system's overall operations. Financial capacity refers to the financial resources and fiscal management that support the cost of operating the water system. Adequate capability in all three areas is necessary for the successful operation of a public water system. As written in the Safe Drinking Water Act (SDWA), the capacity development program provides a framework for state agencies, local governments, stakeholder groups or organizations, water systems and the public to work toward ensuring that drinking water systems acquire and maintain the technical, managerial, and financial capacity needed to achieve public health objectives (i.e., compliance with applicable State and Federal drinking water regulations).

**Definitions**

Refer to these definitions when completing the Capacity Assessment Form.

<b>Annual Water Quality Report (AWQR)</b>  <b>*also known as a Consumer Confidence Report (CCR)</b>	documentation designed to provide consumers with information on the quality of the water delivered by their public water system; contains information about the water system, the source of the water, reporting levels of contaminants detected in the finished water, information on cryptosporidium, radon, and other unregulated contaminants, any violations of the national primary drinking water regulations, and information regarding any variances or exemptions the water system may be operating under. These reports are required by the EPA.
<b>Asset</b>	anything that a system owns that is used in its operations; in this context, asset refers only to physical assets or components of physical assets (pipes, valves, pumps, etc.) and NOT to financial assets (e.g., bank accounts, bonds, etc.).
<b>Asset Inventory</b>	a listing of all the assets owned by a system with information on age, condition, location, remaining useful life and value of each.
<b>Asset Management</b>	a technique of managing the assets of a system or community that seeks to meet a required level of service in the most cost-effective way through the creation, acquisition, operation, maintenance, rehabilitation, and disposal of assets to provide for present and future customers.

<b>Capacity</b>	the ability of a water system to plan for, achieve, and maintain compliance with all applicable drinking water standards. There are three components to capacity: technical, managerial, and financial (TMF).
<b>Capacity Development</b>	the process by which water systems acquire, maintain, and build upon their technical, managerial, and financial capabilities to enable them to consistently provide safe drinking water to their customers in a reliable and cost-effective manner.
<b>Capacity Score</b>	the sum of points earned divided by the total points possible on NYSDOH's Public Water System Capacity Assessment Form, multiplied by 100. There are individual capacity scores for each section (technical, managerial, and financial) as well as an overall score that combines all sections.
<b>Capital Improvement Plan</b>	a document that lists the large equipment purchases or construction projects that a system anticipates it will need in upcoming years (ideally should be done for a 20-year time frame, updated annually).
<b>Community Water System (CWS)</b>	a public water system with at least five service connections used by year-round residents or regularly serves at least 25 year-round residents.
<b>Contingency Plan</b>	documentation that describes how system operations will continue in the event the owner or operator(s) become incapable of carrying out their responsibilities.
<b>Critical Components</b>	assets that are deemed most critical, where if they failed, there would be dire consequences for the water system and public health.
<b>Emergency Reserve</b>	set-aside funds to cover the replacement of critical assets damaged by catastrophic events such as a natural disaster.
<b>Environmental Protection Agency (EPA)</b>	a federal government agency tasked with protecting human and environmental health. In the context of drinking water, the EPA is responsible for establishing and enforcing federal drinking water standards under the Safe Drinking Water Act.
<b>Financial capacity</b>	the financial resources and fiscal management that support the cost of operating the water system.
<b>Long Term Capital Replacement</b>	a plan to look at incomes and budgets and adjust in advance of a large expenditure or need. To develop, a water system will want to develop a Capital Improvement Plan and perform Business Case Evaluations, which allows the system to have a deeper look at high dollar projects to ensure projects are needed and that all the options for project development have been fully considered,

	including options for non-asset solutions or alternatives that might not include replacing the asset with a similar asset.
<b>Managerial capacity</b>	the expertise of the water system's personnel to administer the system's overall operations.
<b>Maximum Contaminant Level (MCL)</b>	maximum permissible level of a contaminant in water which is delivered to any user of a public water system. MCLs are established to ensure that the water is safe for people to drink.
<b>Meter</b>	measures the volume of water used by residential and commercial building units that are supplied with water by a public water system. Allows both consumers and suppliers to know exactly how much water is being consumed.
<b>New York State Department of Health (NYSDOH)</b>	the agency responsible for administering the drinking water program in the state.
<b>Noncommunity Water System (NCWS)</b>	a public water system that provides water to people in places other than their residences.
<b>Non-Revenue Water (NRW)</b>	water supplied to the network that does not return revenue to the utility; the sum of Unbilled Authorized consumption (water for firefighting, flushing, etc) plus Apparent losses (customer meter inaccuracies, unauthorized consumption and systematic data handling errors) plus Real Losses (system leakage and storage tank overflows). May be expressed as volume (total per year or per connection) or value (total cost of operations and/or cost per connection per year).
<b>Non-Transient, Noncommunity Water System (NTNCWS)</b>	a public water system that does not serve a resident population but serves at least 25 of the same persons, four hours or more per day, for four or more days per week, for 26 or more weeks.
<b>New York Codes, Rules and Regulations (NYCRR)</b>	the rules and regulations of New York State agencies.
<b>New York Water/Wastewater Agency Response Network (NYWARN)</b>	provides member utilities with emergency planning, response, and recovery before, during or after an emergency.
<b>Operating Reserve</b>	set-aside funds to cover operation costs if/when cash flow is weak.
<b>Public Water System (PWS)</b>	a community, noncommunity, or non-transient noncommunity water system that provides piped water to the public for human consumption. The system must have at least five service connections or regularly serve an average of at least 25 individuals daily at least 60 days out of the year.

<b>Rate System</b>	an organized plan for charging the customers of the system for the services provided by the system according to each customer's relative usage of those services; must, at a minimum, cover the operating expenses of the system and should provide funds for debt service and reserves for emergencies, repairs and replacements and the un-funded portions of capital improvements.
<b>Safe Drinking Water Act (SDWA)</b>	the federal law passed by the U.S. Congress in 1974 and amended in 1986 and 1996, which authorizes the United States Environmental Protection Agency and the States to oversee public water systems and set standards for drinking water to protect public health.
<b>Sample Siting Plan</b>	to specify where in the distribution system LCR, DBP, and routine and repeat bacteriological samples will be collected to ensure they are representative of the water quality in your system.
<b>Sanitary Survey</b>	an onsite review of a water system including the water source, facilities, equipment, operations maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.
<b>Service Interruption</b>	disruptions in distribution caused by construction, water main breaks, or blockages in the pipes.
<b>Shortfalls</b>	years when expenses exceeded revenues.
<b>Short-Lived Asset Reserve</b>	set-aside funds to cover the replacement of pumps, paint, other small equipment that requires replacement/repair in up to 15 years.
<b>Significant Deficiency</b>	any defect in a system's design, operation, or maintenance, or a failure or malfunction of its source, treatment, storage, or distribution system, that is determined to be causing or has the potential to cause the introduction of contamination into water delivered to consumers. Significant deficiencies can also be any deficiency that may cause loss of ability to deliver an adequate quantity of water, inadequate barriers of protection including failure of monitoring, and conditions that pose an obvious security risk to the water system. Significant deficiencies include public health hazards (actual or imminent) or any item with the potential to cause a future public health hazard (i.e. before the next scheduled sanitary survey).
<b>Source Water Protection Plan</b>	an action-oriented document that assesses potential sources of contamination near a public water system's source(s) of water

	(e.g. reservoir, river, groundwater), establishes critical protection areas, and outlines protection strategies that will maintain or improve the quality and longevity of the water source(s). Source Water Protection Plans are often a product of New York State's Drinking Water Source Protection Program (DWSP2) and NYRWA source water protection planning assistance. The NYS Source Water Assessment Program (SWAP) studies that were completed in the late 1990s/early 2000s do not qualify as a Source Water Protection Plan.
<b>Standard Operating Procedure</b>	specific procedures to be followed during normal, day-to-day operations.
<b>Succession Plan</b>	to identify critical positions within organizations and develop action plans for individuals to assume those positions. Those action plans identify future staffing needs and individuals with the skills and potential to perform in these future roles.
<b>Technical Capacity</b>	a water system's ability to operate and maintain its infrastructure.
<b>Water Revenue</b>	funds earned by the system through the sale of water or by other means. Total water revenues are generated from water sales, fees, fines, and general fund revenues. Systems can also generate revenues from other non-consumption-based charges such as interest earnings.
<b>User Charge/User Fee</b>	the price a customer must pay for water, including fixed and variable charges, that goes toward supporting the efficient function of the water utility.
<b>Water Audit</b>	an accounting of all water in a water system resulting in a quantified understanding of the integrity of the water system and its operation.
<b>Water Expense</b>	the cost of operations that a water system incurs to generate revenue.
<b>Water Rate</b>	the charge a system assesses its customers for use of the water system's services, usually billed monthly.
<b>Violation</b>	Failure to comply with or conform to the provisions of Section 5-1.1 of New Yorks Codes, Rules and Regulations.
<b>1 in 50-year drought calculation</b>	As outlined in the Recommended Standards for Water Works (2018), Section 3.1.1.

## Sources

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