



Water System Capacity

What is water system capacity?

We define water system capacity as the system's technical, managerial, and financial capability to achieve and maintain compliance with all relevant local, state, and federal plans and regulations. In other words, the system has the knowledge, tools, and resources to ensure it can provide safe and reliable drinking water now and into the future.

What does a water system with capacity look like?

Technical Capacity	
Source Water Adequacy	<ul style="list-style-type: none"> • The source is adequate to meet current and future demands. • The source meets all applicable water quality standards and is appropriately sampled and protected. • The system is operating within water right limitations.
System Operations	The system has a certified operator who: <ul style="list-style-type: none"> - Understands the benefits of public health protection. - Knows the applicable drinking water standards. - Understands the system's technical and operation characteristics. - Implements the system's operation and maintenance plan successfully.
Infrastructure Adequacy	The system can reliably produce and deliver an adequate supply of water that meets all drinking water standards because its infrastructure, from source to distribution, is in good condition and has not exceeded its useful life.
Managerial Capacity	
Ownership Accountability	<ul style="list-style-type: none"> • Owners, governing board members, and managers have clearly identified responsibilities. These individuals are accountable for the management of the system. • Governing board members and managers are actively involved in capital improvement and financial planning to meet the short and long-term needs of the system. They develop and periodically revisit strategic plans, including source water protection and emergency preparedness.



HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

Managerial Capacity (cont.)	
Staff Knowledge and Training	<ul style="list-style-type: none"> • System staff have necessary licenses and certifications and adequate knowledge to manage operations and understand regulatory requirements. • System staff receive ongoing training to stay current on new regulatory requirements and best practices.
Effective External Linkages	<ul style="list-style-type: none"> • Governing board members, managers, and system staff interact with their customers and with regulatory agencies. • Governing board members, managers, and system staff build relationships with customers, technical assistance providers, and regulatory agencies to increase their ability to solve problems quickly.
Financial Capacity	
Revenue Sufficiency	<ul style="list-style-type: none"> • Rates and other system charges cover the full cost of providing service. • System personnel know and can measure all costs and revenues. • Reserve accounts or savings are available for unexpected expenses.
Fiscal Management	System personnel keep adequate books and records, use appropriate budgeting, accounting, and financial planning methods, and manage revenues effectively.
Credit Worthiness	<ul style="list-style-type: none"> • The system has an established credit rating to allow personnel to access funds for an emergency or to implement the capital improvement plan. • System personnel can access capital for the system through public or private sources.

What are the benefits for systems that achieve a high level of capacity?

All water systems, regardless of size or other characteristics, can benefit from a program of continuous improvement that includes self-assessment, strategic planning, and monitoring for accountability and performance. Doing so allows a system to:

- Save costs associated with minimizing liability, prolonging the useful life of infrastructure, and running the system efficiently.
- Protect public health by ensuring consistent compliance with drinking water standards, including federal and state regulations and other applicable standards of performance.
- Provide service to their existing customers and serve new customers in the future.
- Request funds from the Drinking Water State Revolving Fund (DWSRF) loan program.
- Enhance performance beyond compliance through measures that bring about efficiency, effectiveness, and service excellence.

How has the Office of Drinking Water required systems to show capacity?

Over the past decade, we have required new and expanding water systems to show technical, managerial, and financial capacity in their water system plan or small water system management program. We've used operating permit color and enforcement actions as additional indicators of capacity. We've offered technical assistance to systems with lower capacity.

What is the Office of Drinking Water's approach going forward?

Our past efforts have helped systems build their capacity. Still, some small community water systems are struggling, and a few are even failing. In general, when the size of the community decreases, the water system's challenges increase. The legislature asked us to study this issue and make recommendations. We are committed to creating new and improved tools and processes to better assess small systems' capacity so that we can provide targeted, appropriate, and effective assistance where and when it's needed.



Assessing technical, managerial, and financial capacity means collecting the right information and using it in a meaningful way. We already have some small water system information, like water quality data. However, we lack facts about small water systems' financial and managerial capacity. This additional information will help us provide targeted, appropriate, and effective assistance where and when it's needed.

How can the state help my system increase its capacity?

We can help you improve your technical, managerial, and financial capacity in many ways.

Planning

Planning is a comprehensive process of collecting important water system information and using it to make the best management decisions for the system's short and long-term viability.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/PlanningRequirements.aspx>

Emergency Response and Security

How well you handle an emergency depends on how well you prepare. Our emergency response and security program connects you with people and resources so you can get help quickly during an emergency.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/DrinkingWaterEmergencies/EmergencyResponseandSecurity.aspx>

Source Water Protection (SWP)

Protecting the system's source is the first barrier in the multiple barrier approach to protecting drinking water. Our SWP program provides tools and resources to help you protect your source.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWater/SourceWaterProtection.aspx>

Water Use Efficiency (WUE)

With a WUE program, you identify how to use your water resources to serve current and future needs. Developing a comprehensive program allows you to implement a rate structure that balances revenue *and* promotes conservation.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/WaterUseEfficiency.aspx>

Sanitary Surveys

Sanitary surveys are inspections of water system infrastructure, operations and maintenance procedures, and policies. The surveyor, operator, and system owner identify and discuss system strengths, immediate and long-term threats to public health, and solutions to those threats.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/RegulationandCompliance/SanitarySurveys.aspx>

Operator Certification

The system's operator is a vital asset to the system. Our Operator Certification Program helps ensure the operator is qualified and has the skills needed to operate and maintain the system.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/RegulationandCompliance/WaterworksOperatorCertification.aspx>

Water System Management (SMAs)

SMAs have the knowledge and expertise to help the water systems they own or manage achieve short and long-term goals.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance/SatelliteManagementAgencies.aspx>

Drinking Water Rules

To meet state and federal requirements, we adopt new drinking water rules periodically to ensure systems provide safe and reliable drinking water.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/RegulationandCompliance/Rulemaking.aspx>

Drinking Water State Revolving Fund (DWSRF)

The DWSRF loan program provides low interest loans to community and nonprofit noncommunity water systems for capital improvements that result in public health protection.

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance/DrinkingWaterStateRevolvingFundDWSRF.aspx>

Training

Proper training is an important step in building a system's capacity. You can find links to training online at

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance/Training.aspx>

Technical Assistance

Call our regional office (see phone numbers on Page 5). We can:

- Explain the requirements of state and federal regulations.
- Identify appropriate follow-up action, such as taking repeat samples, flushing a distribution system, providing public notification, and disinfecting a water system.
- Share new treatment technologies or help you optimize your current treatment plant.
- Discuss loans and grants that can help improve your water system.
- Make referrals to specialists that can help you with financial aspects of the system, such as conducting a rate study or developing an asset management plan.
- Explain options such as merging with another water system, interties, and restructuring.

Office of Drinking Water’s regional offices include:

Eastern Region: Spokane Valley 509-329-2100

Northwest Region: Kent 253-395-6750

Southwest Region: Tumwater 360-236-3030

How else can I help my system increase its capacity?

Use Fact Sheets and Guidance Documents.

Get copies of publications about capacity and other topics by calling 800-521-0323 or using our online publications database.

All of the following publications are online at

<https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm>

Fact Sheets

- *Asset Management for Small Water Systems* (331-345)
- *Financial Viability for Small Water Systems* (331-305)
- *Water Rates: Paying for Drinking Water* (331-327)

Guidebooks

- *Strategic Planning: A Handbook for Small Water Systems* (EPA Pub. 816-R-03-015)
- *Asset Management: A Handbook for Small Water Systems* (EPA Pub. 816-R-03-016)
- *Taking Stock of Your Water System: A Simple Asset Inventory for Very Small Drinking Water Systems* (EPA Pub. 816-K-03-002)
- *Setting Small Drinking Water System Rates for a Sustainable Future* (EPA Pub. 816-R-05-006)
- *Small Water System Management Program Guidebook* (331-134)

Join our email lists to get updates about drinking water rules and publications.

Sign up at <http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater.aspx>

Get information from the U.S. Environmental Protection Agency (EPA).

EPA offers capacity information online at

<http://water.epa.gov/type/drink/pws/smallsystems/index.cfm>



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