



# Owning and Managing a Group A Water System

## A critical responsibility

There is nothing more important to sustaining life than water—specifically, safe and reliable water to drink. If you are new to public water system ownership, this guide will give you a brief overview of your responsibilities and some tips to help you make decisions that will sustain the long-term capacity of the system. For experienced board members and officials, this guide is a good refresher.

As a Group A water system owner, officer, or employee, your decisions affect the quality of life for the customers who receive water and pay their bill, and the community—its businesses, industries, schools, churches and other public places. Communities thrive because of their water supply.

**Group A water systems** have 15 or more service connections or serve 25 or more people 60 or more days per year.

Providing safe drinking water is not as easy as it may seem. That clear glass of tap water you drink today is not the product of luck. It takes hard work by those at the water system that provides it, those who set drinking water quality standards, and those who help the water system meet those standards. Owning and managing a Group A water system can be rewarding. By meeting your legal responsibilities, you can protect your customers from illness or even death from waterborne disease. Doing so will also help you avoid fines, lawsuits, and extra work.

## Legal obligations

The U.S. and Washington State have a legal framework for providing safe drinking water. As a water system official, you must know about the rules to follow as well as how those rules, standards and practices may change in the future. Because of the complex nature of the regulations, it can be difficult to know exactly how and when you may be liable for water system activities. Understanding the legal framework is a big step toward being successful.

Congress passed the Safe Drinking Water Act (SDWA) in 1974 to protect public health by regulating the nation's public drinking water supply. Under the SDWA, the U.S. Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.



EPA granted the Washington State Department of Health Office of Drinking Water the authority to implement the Safe Drinking Water Act and enforce federal drinking water rules in our state.

The state rules we use to govern Group A public water systems are in the Washington Administrative Code (WAC chapter 246-290 and chapter 246-292). These rules cover many areas of water system operations and management, and are consistent with the SDWA. For a brief history of drinking water regulation, see Page 7 of this publication.

### Regulations and regulators that may apply to your water system

While this is not a complete list, it will give you a good foundation.

Agency	Topic	Regulation or Source
U.S. Environmental Protection Agency	Safe Drinking Water Act	See <a href="#">EPA Website</a>
WA Dept. of Health*	Group A public water supplies	Chapter <a href="#">246-290 WAC</a>
WA Dept. of Health	Water works operator certification	Chapter <a href="#">246-292 WAC</a>
WA Dept. of Health	Water System Coordination Act	Chapter <a href="#">246-293 WAC</a>
WA Dept. of Health	Drinking water operating permits	Chapter <a href="#">246-294 WAC</a>
WA Dept. of Health	Satellite system management agencies	Chapter <a href="#">246-295 WAC</a>
WA Dept. of Health	Drinking Water State Revolving Fund Loan Program	Chapter <a href="#">246-296 WAC</a>
WA Dept. of Ecology	Water rights	See <a href="#">Ecology Website</a>
WA Utilities & Transportation Commission (UTC)	Rate approval for some private for-profit water systems	See <a href="#">UTC Website</a>

\* Local health departments may carry out some activities for us.

### Key requirements and responsibilities

- Collect water quality samples from the water source and distribution system and factually report the results to local and state health departments. If you have questions about your water system requirements, contact our nearest regional office.
- When water quality does not meet requirements, notify all your customers using our approved language and timeframes. For details, see [Public notification helps to protect public health](#) (331-239).
- Provide an adequate quantity of water, delivered under proper pressure, at all times.
- Employ a [certified waterworks operator](#), under most circumstances.
- Properly operate, maintain, and protect your water system from vandalism, damage, and contamination.
- Develop and practice an emergency response plan.
- Keep your *Water Facilities Inventory* current and alert us right away, if there are changes in ownership, management, or operations of your water system.
- Promptly follow-up on all items identified during a [sanitary survey](#) of your water system.

- Put important operating policies in writing. For details, see [Service Area Policies](#) (331-438).
- Include all costs in your annual budgeting process, including capital improvements, preventive maintenance, and water quality sampling.
- Maintain communication with customers.
- Participate in drinking water-related training and take advantage of one-on-one on-site technical assistance opportunities.

## Running the water system like a business

The “bottom line” for most businesses is profitability: How much money did we gain or lose? Although some public water systems in Washington are private for-profit businesses, most are public entities owned by cities, water districts and irrigation districts, or privately owned nonprofit entities, such as homeowners’ associations.

**The “bottom line” for public water systems is whether they can provide safe and reliable water now and in the future.** Financial health is certainly very important for water systems to achieve sustainable safe and reliable water, but good public health outcomes should be the system’s ultimate goal.

No matter how the utility’s governing body is organized, the customers benefit when the water system operates in a purposeful, business-like manner. Businesses succeed when they have a well thought out business plan to drive their actions. The same is true for water systems. A planning document, and the process of preparing it, allows water systems to decide what they need to do, how they are going to do it, and how they are going to finance their current and future operations.

## Liability exposure

In a water system, the officers or the board of directors are the principals in charge. System employees act at the direction of the principal; and, the principals are responsible for the actions of their employees as long as the employees operate within their scope of authority. The direction you provide employees may be explicit or implied. Ordinances, by-laws, personnel regulations, job descriptions, collective bargaining agreements, contracts with employees or outside laboratories, organizational charts, memoranda, and bulletins or advisory guidelines establish the scope of authority for principles and employees.

## Potential consequences of violating requirements

**Required action or costly fines.** We take many steps to ensure you know the requirements to run a water system. If a water system fails to meet the requirements of a regulation, the EPA or our office may require specific remedies or impose daily fines for each violation.

**Red operating permit.** The operating permit is a way to evaluate a system’s compliance with drinking water requirements. A red operating permit indicates the water system is inadequate and in substantial noncompliance with the requirements. This could result in the denial of building permits, on-site sewage disposal permits, food service permits, liquor licenses, and other permits or licenses for properties that are, or will be, connected to the water system. In addition, lending institutions may choose not to finance loans for buying, refinancing, or remodeling if they are

associated with these properties. For more information, see [Operating permits for drinking water systems](#) (331-168).

**Lawsuits.** Regulatory agencies or water system customers may take legal action to force a system to comply. The SDWA allows citizens to sue a system for exceeding maximum contaminant levels. Restaurants, childcare or health care facilities, and other water customers may also take action against the system. These cases might have standing in court if there's an argument that the water users suffered injury the general public did not.

## Before you start

**Before you buy, develop, or decide to manage your own water system, ask two questions:**

1. Is water available from a nearby utility? If so, you may be required to receive water service from that utility.
2. Is there a [Satellite Management Agency](#) (SMA) operating in your area? If yours is a new water system, you may be required to contract for management services with the SMA. If yours is an existing system, contracting with an SMA may be less costly and more efficient than going it on your own.

If you answer “Yes” to either question, you may not need to take on the responsibilities of managing a water system.

## Getting started: Capacity development and planning

**Capacity development framework.** Systems that develop and maintain sound technical facilities, good financial condition and controls, and proper management are most likely to provide safe drinking water now and in the future. This idea is the basis for requirements in the SDWA to document and improve water system technical, managerial, and financial capacity. Read about capacity development and our approach in [Water System Capacity](#) (331-283).

**Water System Planning.** A water system planning document is the public water system equivalent of a business plan. The process of thinking through the issues, making decisions, and documenting decisions is at least as important as the paper document produced by the process. The principal goal of water system planning is to make the best use of available resources in providing high-quality service and protecting the health of utility customers. The planning process is the basis for wise decisions about improvements, operations, and service delivery standards consistent with the utility's overall direction. The water system planning process is a chance to look at the utility's needs, desires and requirements, and formulate an action plan.

We also use water system planning as a way to verify that water systems are complying with the capacity development provisions of the SDWA. Your plan should help you:

- Develop strategies for complying with the SDWA and other requirements.
- Develop consistency between your efforts and other regional and local plans.
- Establish the utility's policies and procedures.
- Get your water sources approved and protect your sources.
- Pursue new, expanded, or modified water rights as needed.
- Employ a qualified waterworks operator.
- Develop operations and management plans to prevent contamination and protect your system.

- Prepare for and respond to emergencies.
- Deliver reliable, high-quality water and minimize public health risks.
- Ensure orderly growth of the system.
- Evaluate existing and future system needs for decision makers.
- Develop a budget to finance expenses.
- Prepare for utility rate revisions and grant or loan applications.
- Use available resources efficiently.

### **There are two formats for water system planning documents**

One is the [Water System Plan](#) (see WAC 246-290-100). Community systems meeting the following criteria must complete this relatively comprehensive document, and submit an update to us at least every six years:

- 1,000 or more connections.
- Expanding water systems.
- New community water systems.

The other format is a Small Water System Management Program (SWSMP) (see WAC 246-290-105). Noncommunity systems and Group A community systems that don't meet the criteria for a Water System Plan must use this format. For guidance, see our [SWSMP Guide](#) (331-134) and [Noncommunity SWSMP](#) (331-474).

### **Ongoing management**

**Get an annual [operating permit](#) each year.**

**We have special requirements for treating surface water sources (such as lakes and rivers)** including monitoring the source and protecting the source. The operator or manager must be sure to provide proper treatment for surface sources and groundwater sources under the direct influence of surface water. To learn more about these requirements, call our nearest regional office and see [Surface Water as a Source of Public Drinking Water](#) (331-207).

### **Making improvements**

**Evaluate your water system regularly** to make sure it works properly and keep it safe from contamination and vandalism. Before you commit to adding more customers, contact us to ensure your water system is approved to serve more users and that your water system can handle them.

### **Test water samples**

#### **Test water quality samples**

Arrange for a state-certified lab to analyze your water system's water quality samples. You can get a list of qualified labs from the [Department of Ecology](#).

#### **Sample for coliform**

The lab tests [coliform samples](#) for bacteria that may indicate the presence of disease-causing organisms. Complete a plan for where and how often to sample for coliform and follow the plan. See [Preparation of a Coliform Monitoring Plan for Group A Public Water Systems](#) (331-036) for guidance.

#### **Sample for chemicals**

Early each year, we provide community and nontransient noncommunity water systems with a water-quality monitoring schedule that describes water-sampling requirements.

#### **Follow our requirements**

Keep sample records and contact us immediately when the results show a problem. We may require you to take additional samples; inspect, repair or disinfect the water system; or notify your customers about the problem and the steps they should take to protect their health.

**Prepare a written water system plan or project report** that describes the needed improvements. You must hire a professional engineer to prepare the planning and design documents. For guidance, see *How to hire an engineer* (331-044).

**Get our approval** of the report, plans, and specifications (construction documents) before work starts.

**A professional engineer must certify** that construction of your improvements followed the approved construction documents. Moreover, you must send the professional engineer's certification to us. You must disinfect and test all new or repaired water system facilities before placing them into service.

### **Buying or selling a water system**

Contact us at least 12 months (or as soon as possible) before the transaction for a list of steps to follow when the water system changes owners.

### **For more information**

Our publications are online at <http://www.doh.wa.gov/ehp/dw>

Staff at our regional offices know all of the responsibilities listed in this publication. For more information, call the nearest office.

**Eastern Region:** Spokane Valley 509-329-2100

**Northwest Region:** Kent 253-395-6750

**Southwest Region:** Tumwater 360-236-3030

**Toll-free:** 800-521-0323

### **U.S. Environmental Protection Agency**

Safe Drinking Water  
800-426-4791

### **American Water Works Association**

800-366-0107

## **The Legal Framework: A Short History of Drinking Water Regulation in the United States**

### **The Interstate Quarantine Act of 1893**

Congress enacted the Interstate Quarantine Act of 1893 as a response to waterborne disease outbreaks during the Industrial Revolution. Persistent typhoid, cholera and other communicable diseases were increasing as more people moved to cities to work in factories. Administered by the U.S. Public Health Service, the act allowed the government to control the transmission of communicable diseases. In 1912, the first adopted drinking water-related regulations prohibited the use of a common drinking water cup on interstate carriers, such as trains and ships.

### **Public Health Service Drinking Water Standards**

In 1914, following the discovery of scientific evidence linking drinking water contamination to bacteriological contamination, the U.S. Public Health Service (PHS) adopted the *Public Health Service Drinking Water Standards* (standards). As in the Quarantine Act, the standard applied only to interstate commerce carriers. The standard established an upper limit for the allowable concentration of bacteria in drinking water. The standards were revised many times as scientific understanding increased. By 1962, the standards regulated 28 substances. Although only interstate commerce carriers were required to comply, all 50 states adopted the standards as guidelines or regulations for their public water systems.

### **President Nixon Establishes the EPA**

In response to increased public awareness and concern about pollution, President Richard Nixon established the U.S. Environmental Protection Agency (EPA) in 1970 to create and enforce environmental policies.

### **The 1974 Safe Drinking Water Act**

In 1970, the PHS released results of its Community Water Supply Study. The study looked at whether water systems met the 1962 PHS standards. Of the 969 systems surveyed, 41 percent did not. The study increased public and legislative interest, and Congress began to create legislation for a national drinking water protection law. In 1974, Congress adopted The Safe Drinking Water Act (SDWA) to ensure that drinking water supplied to the public is safe. The SDWA regulates all water systems that have at least 15 service connections or regularly serve at least 25 people. Some states, including Washington, elected to regulate even smaller systems.

### **The 1986 SDWA Amendments**

Congress amended the SDWA significantly in 1986 to strengthen standards, enforcement authority, and groundwater protection. The amendments required EPA to substantially and quickly increase the number of regulated contaminants. Municipalities struggled to meet these federal standards without receiving additional federal funding. The “Unfunded Mandates Revolt” of the 1990s, led by the National League of Cities, was a product of the 1986 SDWA Amendments. Significant changes of the 1986 SDWA Amendments include:

- Expansion of regulations to include nontransient, noncommunity water systems.
- Great increase in the number of regulated contaminants.
- Increased monitoring requirements for organic chemicals and coliform.
- Tighter requirements for surface water.
- Established lead and copper regulations and corrosion control requirements.
- Increased requirements for public notification and risk communication.

- Established groundwater and wellhead protection programs.
- Provision for waivers and exemptions from chemical monitoring.
- Provision of funding for sole source aquifer protections.

### The 1996 SDWA Amendments

These amendments helped to relieve the effects of the 1986 SDWA Amendments while further protecting public health through regulatory improvements, increased funding, prevention programs, and public participation. Significant changes in the amendments include:

- Regulatory priorities based on public health risk.
- Flexibility for states to implement the SDWA.
- Significant funding for states through the drinking water state revolving fund.
- Funding for source water assessments.
- Standards for operator certification.
- Requirements to develop capacity development strategies to help systems (especially small systems) improve technical, financial and management capabilities.
- Increased drinking water protection through government accountability and public understanding and support, including consumer confidence reports.

The EPA is currently implementing requirements of these amendments with its state partners.

### Regulations Implementing SDWA (1974 Act and the Amendments of 1986 and 1996)

The regulations that implement the SDWA are in the Code of Federal Regulations, Title 40, parts 141, 142, and 143. These are commonly known as *the National Primary and Secondary Drinking Water Regulations*. EPA established maximum contaminant levels (MCLs), treatment techniques, and best available technologies to ensure the delivery of safe drinking water to the public.

For many contaminants, if initial monitoring results are within certain parameters, future monitoring is limited. For bacteriological contaminants, monitoring and treatment requirements are extensive and continuous. Treatment plants demonstrate effectiveness by monitoring and reporting lab results of contaminants, including volatile organic compounds, synthetic organic compounds, inorganic compounds, total coliform, turbidity, disinfection by-products, lead and copper, and radionuclides. If they exceed an MCL, the water system must take specific actions.

Washington State achieves implementation of EPA's Safe Drinking Water Act by adopting state regulations. Washington rules for Group A Public Water Systems are in Washington Administrative Code (WAC) Chapter 246-290.



For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).