4.1 What is the purpose of this chapter? The purpose of this chapter is to:

A. Ensure Fish and Wildlife Service compliance with the Safe Drinking Water Act (SDWA), and

B. Protect the health and welfare of the public and Service personnel.

4.2 What is the Service's policy on drinking water? All water that we provide for human consumption must be both safe and protected.

4.3 What is the scope of this chapter? This chapter applies to all Service-owned or -operated water supply systems.

4.4 What are the authorities for this chapter?

A. Safe Drinking Water Act (Public Law 93-523, 88 Stat. 1661, 42 U.S.C. 300f et seq.).

B. National Primary Drinking Water Regulations (40 CFR 141 and 142).

C. National Secondary Drinking Water Regulations (40 CFR 143).

D. Underground Injection Control Program (40 CFR 144 - 148).

E. Sole Source Aquifer Program (40 CFR 149).

F. Wellhead Protection Program (Public Law 99-339, 42 U.S.C. 300h-7).

4.5 What terms do you need to know to understand this chapter?

A. Action Level.

(1) For lead and copper, the action level is the concentration of lead or copper in water that determines how we must treat the water system.

(2) For other contaminants, the action level is a concentration of contaminants in water that triggers an increase in the frequency we must monitor for the contaminants.

B. Approved Municipal Facility. An approved municipal facility is a water treatment facility that has been inspected and approved by a State, local, or other regulatory agency that has jurisdiction.

C. Contaminant. A contaminant is any physical, chemical, biological, or radiological substance or matter in water. The U.S. Environmental Protection Agency (EPA) regulates some contaminants and sets monitoring requirements for Maximum Contaminant Levels (MCL), action levels, and treatment technologies. States and local authorities also have responsibilities for enforcing the SDWA.

D. Disinfection. Disinfection is a process that inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

E. Filtration. Filtration is a process for removing particulate matter from water by passing the water through porous media.

F. Fluid. A fluid is any material or substance that flows or moves whether in a semisolid, liquid, sludge, gas, or other form or state.

G. Maximum Contaminant Level (MCL). The MCL is the maximum permissible level of a contaminant in water in a public water supply system.

H. Public Water Supply System. For a water system to be considered public, it must have at least 15 service connections for human consumption or regularly serve an average of at least 25 people daily at least 60 days out of the year. A public water supply system is either a community water system or a non-community water system.

(1) A Community Water System:

(a) Serves at least 15 service connections used by year-round residents, or

(b) Regularly serves at least 25 year-round residents.

(2) A Non-community Water System has fewer than 15 service connections and is classified as either a non-transient or a transient water system:

(a) A Non-transient Non-community Water System regularly serves at least 25 of the same people over 6 months per year.

(b) A Transient Non-community Water System does not regularly serve at least 25 of the same people over 6 months per year.

I. Sanitary Survey. A sanitary survey is a comprehensive onsite review of the water source, facilities, equipment, operations, and maintenance of a public water supply system to evaluate the capabilities for producing and distributing safe drinking water.

J. Regulated Contaminant. A regulated contaminant is a chemical for which EPA has set enforceable monitoring requirements and that have MCLs, action levels, or treatment technologies associated with the monitoring requirements.

K. Regulatory Agency. The regulatory agency is EPA, the State, or local authority responsible for enforcing the SDWA.

L. Well. A well is a bored, drilled, driven, or dug hole, with a depth greater than the largest surface dimension.

M. Well Injection. Well injection is placing fluids through a bored, drilled, driven, or dug well.

4.6 Who is responsible for ensuring safe drinking water at Service-owned and operated facilities?

A. The **Assistant Director – Business Management and Operations** ensures there are resources to implement the SDWA program.

B. The **Chief, Division of Engineering** leads and coordinates the SDWA compliance program. Responsibilities include, but are not limited to:

(1) Providing guidance, assistance, and training to the Regions and the California/Nevada Operations Office (CNO) to help them comply with this chapter.

(2) Tracking progress on compliance schedules.

(3) In conjunction with the Regional Engineer and the Regional Environmental Compliance Coordinator, anticipating and evaluating the effect of new and proposed regulations on existing supply systems and determining funding necessary to keep existing systems in compliance.

(4) Providing information to Service facility managers about the public health aspects and compliance requirements of Federal legislative or administrative actions that affect the drinking water program.

C. Regional Directors and CNO Manager ensure there are resources to implement the SDWA program.

D. Regional Engineers and Regional Environmental Compliance Coordinators are responsible for the coordination and effectiveness of the SDWA compliance program within their Region or CNO. Depending on the Region, the Regional Engineer may be the same person as the Regional Environmental Compliance Coordinator. Regional Engineers and Regional Environmental Compliance Coordinators must:

(1) Develop and maintain an inventory of public and non-public water supply systems in their Region or CNO.

(2) Assist facility managers and project leaders to determine the monitoring, reporting, recordkeeping, filtration, disinfection, and treatment requirements appropriate for water supply systems on a Service facility.

(3) Track variances and exemptions that the regulatory agencies grant to Service water supply systems.

(4) Track monitoring results of all Service water supply systems based on facility records.

(5) Notify the Division of Engineering when a water supply system is in violation of requirements.

(6) Before design begins on new or modified drinking water supply and treatment facilities, review and approve project criteria and engineering reports.

(7) Ensure that regulatory agencies review and approve all new or modified work on a public water supply system, when required.

(8) Assist facility managers in arranging for required sanitary surveys.

(9) Assist facility managers in bringing water supply systems back into compliance when they are noncompliant or not meeting Service policy.

(10) Provide information to all Service facility managers about the public health aspects and compliance requirements of State legislative or administrative actions that affect the drinking water program within the affected State.

(11) Advise the Regional Directors and CNO Manager of new and proposed regulations applicable to existing water supply systems and the funding necessary to keep existing systems in compliance.

(12) Prepare or recommend to other Programs (e.g., the National Wildlife Refuge System and National Fish Hatcheries, etc.) Regional and CNO budget requests for activities related to complying with this chapter.

E. Facility Managers/Project Leaders must:

(1) Maintain contact and coordinate with the local regulatory agency.

(2) Ensure that the water supply system has required permits.

(3) Ensure their staff operate and monitor the facility according to Service policy and permit requirements, and that they submit all required reports on time.

(4) Notify appropriate authorities, the Regional Engineer, and the Regional Environmental Compliance Coordinator when the water supply system is not in compliance with standards.

(5) Retain records for the water supply system as long as Federal and State regulations require.

(6) Prepare and submit all required reports (see section 4.14B)

(7) Ensure that system operators receive proper training and, if required, get licenses or certifications from the State (also see Table 4-2A).

(8) Ensure that all newly constructed public water supply systems (see section 4.9) meet the following requirements:

(a) Their construction budget has sufficient funds to test for regulated contaminants, and

(b) The systems are thoroughly flushed, disinfected, and tested for regulated contaminants and that the system is approved, as appropriate, for use before being placed in service.

(9) Ensure that current records are available for newly acquired wells or, if such records are not available, newly acquired systems are thoroughly flushed, disinfected, and tested for regulated contaminants.

(10) Ensure that a newly acquired system is approved for use before being placed in service.

(11) Ensure that all repaired or reconstructed public water supply systems and seasonally operated systems are thoroughly flushed, disinfected, and tested for coliform before being placed in service.

(12) Ensure that required sanitary surveys are conducted (see section 4.10).

(13) Request sufficient funds in the facility's budget request to comply with the standards in this chapter.

(14) Send a copy of any test results within 30 days of receipt to the Regional Engineer or Regional Environmental Compliance Coordinator.

4.7 What are the general provisions of the Safe Drinking Water Act (SDWA)?

A. Federal Compliance. The SDWA requires Federal agencies that operate public water supply systems to comply with applicable Federal, State, and local requirements.

B. National Standards.

(1) EPA establishes national drinking water standards that:

(a) Set MCLs or action levels for various substances allowed in drinking water, and

(b) Establish requirements for specific water treatment practices for contaminants that are difficult or costly to measure.

(2) Most States and territories have primary responsibility to enforce compliance with national drinking water standards and sampling, monitoring, and notice requirements. States that have primacy may establish drinking water regulations, monitoring schedules, and reporting requirements more stringent than, or in addition to, those in the EPA regulations.

4.8 What are the requirements for monitoring public water supply systems?

A. EPA regulations require that we monitor our public water supply systems for specific contaminants, depending on the number of people served by the system, the source of the water supply, and likely contaminants. We must develop and follow a written sampling plan that is approved by the State regulatory agency.

B. For all our public water supply systems (e.g., for visitor centers, hatchery buildings, shops, offices, residences, headquarters buildings, laboratories, hand pumps located in camp grounds and picnic areas, etc.), regardless of the size of the system and the frequency or duration of use, facilities must, at a minimum, monitor and analyze each water supply system for the contaminants shown in Table 4-1, below. For the analysis, facilities must use a certified laboratory that either EPA or the State regulatory agency has approved. Ask your Regional Environmental Compliance Coordinator for assistance to determine whether additional monitoring is necessary.

Table 4-1: Minimum Monitoring Requirements for Contaminants

Frequency of Monitoring	Contaminants
Weekly	Coliform (total) when using surface water that is unfiltered and not disinfected
Quarterly	Coliform (total) when using ground water or filtered and disinfected surface water
Annually	Nitrate (total) Nitrite (total) Lead Copper

4.9 What are the requirements for newly constructed and acquired public water supply systems? Whenever we construct a new public water supply system or acquire a system for which we do not have current records, we must test for the contaminants in Table 4-1 and all other regulated contaminants. You can obtain the list of currently regulated contaminants, along with their MCLs or action levels, from the Regional Environmental Compliance Coordinator.

4.10 How often does a public water supply system need a sanitary survey? Unless we collect five or more routine samples per month from a public water supply system, it must undergo periodic sanitary surveys. The State or an agent approved by the State conducts sanitary surveys. The facility manager is responsible for ensuring the surveys take place.

A. Community public water supply systems must have a sanitary survey every 5 years.

B. Non-community public water supply systems must have a survey every 5 years, or every 10 years if it uses protected and disinfected ground water, as defined by the State.

C. The State reviews the results of each sanitary survey to determine if the existing monitoring frequency is adequate and what additional measures, if any, we may need to take to meet applicable standards.

D. If a sanitary survey of a system is conducted in a State having an approved wellhead protection program under section 1428 of SDWA, data from samples collected when the wellhead protection area was established may be used in lieu of a new survey if:

(1) The survey would have been conducted within the delineated wellhead area, and

(2) The data for establishing the wellhead protection area was collected since the system last had a sanitary survey.

4.11 What are the requirements for filtration, disinfection, and corrosion control?

A. Filtration. We must filter water in all public water supply systems that use surface water or ground water under the influence of surface water unless we meet the criteria listed in 40 CFR 141.71. Ask your Regional Environmental Compliance Coordinator for assistance to determine if your facility needs to perform filtration.

B. Disinfection. We must disinfect water in all public water supply systems that use surface water or ground water under the influence of surface water. The system operator must disinfect the water in all other ground water systems unless we meet the criteria listed in 40 CFR 141.72. Ask your Regional Environmental Compliance Coordinator for assistance to determine if your facility needs to perform disinfection.

C. Corrosion control. We must monitor all public water supply systems for lead and copper tap levels and other water quality parameters specified in 40 CFR 141.80 through 141.82 based on the size of the system. If the system exceeds MCLs, the system operator must treat the system for corrosion control. Ask your Regional Environmental Compliance Coordinator for assistance to determine if your facility needs to perform corrosion control.

4.12 What happens if a Service-owned or operated public water supply system does not meet the standards?

A. If the concentration of any contaminant exceeds the MCL or action level, the facility manager or project leader must immediately make the water unavailable for human consumption and notify the Regional Environmental Compliance Coordinator. If the water supply system is a regulated public supply system, the facility manager or project leader must also notify the appropriate regulatory agency.

B. The facility manager or project leader must treat the water in the system, as appropriate, to achieve compliance.

4.13 What other requirements and programs did the SDWA establish that are applicable to Service-owned or operated public water supply systems? Table 4-2 below summarizes other SDWA-established programs and requirements:

Table 4-2: Other SDWA Requirements		
Title	**Background**	**Requirement(s)**
A. System Operators	Regulating States determine the qualifications for system operators for water systems using surface water or ground water under the direct influence of surface water.	States may require that operators hold specific licenses or certifications.
B. Use of Lead Material	1986 amendments to SDWA address use of lead material.	We must not use lead solders, fluxes, and pipes when installing or repairing any public water supply system or in any plumbing system that provides water for human consumption. We must provide a one-time public notification to all users explaining the potential lead contamination sources and reasonably available methods we may use to mitigate lead contamination.
C. Sole Source Aquifers	For areas that EPA determines have an aquifer that is the sole or principle drinking water source for the area and that, if contaminated, would create a significant hazard to public health.	We must not issue a grant or contract, provide a loan guarantee, or enter into any agreement for a project that EPA determines may cause contamination to the sole source aquifer through a recharge zone.
D. Underground Injection Control (UIC) Program	Regulates the underground injection of any fluid in a well. Includes any septic tank, cesspool, or other well used by a multiple dwelling, community, or regional system for the injection of waste. Excludes individual or single family residential waste disposal systems such as domestic cesspools or septic systems; and, nonresidential cesspools, septic systems, or similar waste disposal systems if they are used solely for the disposal of sanitary waste, and they have the capacity to serve fewer than 20 people a day.	We must not inject any fluid in a well that allows the movement of fluid containing a contaminant into underground sources of drinking water if the contaminant would adversely affect human health.

Table 4-2: Other SDWA Requirements		
Title	**Background**	**Requirement(s)**
E. Wellhead Protection Program	States develop and implement wellhead protection programs. States define the surface and subsurface area surrounding a well or wellfield through which contaminants are likely to move. Possible causes of contamination include: agricultural practices, leaking underground storage tanks, faulty septic systems, underground pipelines, hazardous and non-hazardous landfills, underground injection wells, road de-icing, oil and gas exploration, salt water intrusion, and feedlot waste disposal. After States identify wellhead areas, control measures may be adopted, public educational programs established, and technical assistance to protect the areas may be provided. Control measures may include land-use restrictions or controls on the use of fertilizers and pesticides.	We must comply with the regulatory State's program and pay charges and fees just as any private entity would. We must develop a contingency plan for providing an alternative source of drinking water.

4.14 What are the recordkeeping and reporting requirements for Service-owned or operated public water supply systems?

A. Recordkeeping.

(1) Recordkeeping at the Facility Level: The facility manager or project leader must keep the following at least for as long as specified in the regulations governing the facility:

(a) Laboratory results,

(b) Name of person who collected the samples,

(c) Dates and locations of sampling points,

(d) Steps taken to correct problems,

(e) Sanitary survey reports, and

(f) Any other required information.

(2) Recordkeeping at the Regional and CNO Level: At a minimum, the Regional Engineer or Regional Environmental Compliance Coordinator must maintain a technical file that contains the following information:

(a) The current list of contaminants to test for and the MCL or action level for each contaminant;

(b) Guidance on the proper selection of sampling locations;

(c) A list of laboratories certified by each State;

(d) The requirements for reporting sample results, MCL violations, and/or failure to monitor;

(e) The requirements for notifying the public about any violation of drinking water regulations;

(f) The length of time we must retain the various types of reports, lab results, and records;

(g) Information on the special, one-time notification for lead (see Table 4-2B);

(h) Guidance on the lead use ban;

(i) The requirements for using licensed operators;

(j) Guidance on techniques and procedures for disinfection;

(k) Information on the requirements of each of the other programs (i.e., wellhead protection program, sole source aquifer program, and the underground injection control program) the SDWA established (see Table 4-2); and

(l) Instructions on what to do when a water system cannot be used for human consumption because it does not meet standards.

B. Reporting. Reporting requirements vary depending on the regulatory agency. The information we typically must report includes, but is not limited to:

(1) Sample results: We must send test results for all required sampling to the regulatory agency.

(2) MCL violations: We must notify the regulatory agency any time sample results indicate noncompliance with primary drinking water standards.

(3) Failure to monitor: Any time we fail to comply with sampling or monitoring requirements, we must notify the regulatory agency. Regulatory agencies consider an invalid sample result a failure to monitor.

C. Public Notification. We must report noncompliance conditions to all people served by the public water system. Federal, State, or local regulations prescribe the timing and means for all notifications.

4.15 What other regulations pertain to the Safe Drinking Water Act?

A. Occupational Safety and Health Act: There are Occupational Safety and Health Administration regulations pertaining to the use of the chemicals for most of the disinfection procedures for drinking water.

B, Federal and State Regulations for Waste Management: Most treatment processes concentrate contaminants into a residual stream (brine or sludge) that requires proper management. We must follow applicable Federal and State regulations covering the management of such wastes.

Deputy DIRECTOR

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