



Ground Water Rule Factsheet: General Rule Requirements

WHAT IS THE GROUND WATER RULE?

The U.S. Environmental Protection Agency (EPA) published the Ground Water Rule (GWR) on November 8, 2006. One goal of the GWR is to provide increased protection against microbial pathogens, specifically bacterial and viral pathogens, in public water systems (PWSs) that use ground water. Instead of requiring disinfection for all ground water systems (GWSs), the GWR establishes a risk-targeted approach to identifying GWSs that are susceptible to fecal contamination. The GWR requires systems at risk of microbial contamination to take corrective action to protect consumers from harmful bacteria and viruses.

TO WHOM DOES THE GWR APPLY?

The GWR applies to all PWSs that:

- Rely entirely on one or more ground water sources.
- Are consecutive systems receiving ground water.
- Mix surface and ground water, where ground water is added directly to the distribution system and delivered to consumers without treatment equivalent to the treatment provided for surface water.

Although all of these systems are subject to the GWR provisions, systems that have been identified as at-risk for contamination (by inspection or based on monitoring results) will account for most of the systems that have to take corrective action to comply with this rule.

WHAT ARE THE BASIC REQUIREMENTS OF THE GWR?

The basic requirements of the GWR include:

- Sanitary surveys.
- Source water monitoring.
- Compliance monitoring.
- Corrective actions.

Sanitary surveys are primarily the responsibility of the states, while GWSs are responsible for the other requirements.

WHAT ARE THE SANITARY SURVEY REQUIREMENTS?

The GWR requires states to conduct sanitary surveys of all GWSs in order to identify significant deficiencies, including deficiencies that could make a system susceptible to microbial contamination. Following the initial sanitary survey, states must conduct surveys every 3 years for community water systems (CWSs) and every 5 years for non-community water systems (NCWSs). States may conduct sanitary surveys every 5 years for CWSs that either provide at least 4-log treatment of viruses or have outstanding performance records, as determined by the state.

Systems must provide the state with any information that will enable the sanitary survey to be complete and accurate. Each survey must include, but is not limited to, an onsite review and evaluation of eight elements:

- ☀ Source.
- ☀ Treatment.
- ☀ Distribution system.
- ☀ Finished water storage.
- ☀ Pumps, pump facilities, and controls.
- ☀ Monitoring, reporting, and data verification.
- ☀ System management and operation.
- ☀ Operator compliance with state requirements.

If a state identifies a significant deficiency during a sanitary survey or at another time, the system must take corrective action. A significant deficiency may include defects in design, maintenance, or operation of the water system. A significant deficiency may also include the failure or malfunction of the source, treatment, or distribution system that may cause contamination of water delivered to consumers.

For more information on the sanitary survey requirements of the GWR, please refer to “Ground Water Rule Factsheet: Sanitary Surveys.”

WHAT IS TRIGGERED SOURCE WATER MONITORING?

Triggered source water monitoring is required for any GWS that is not conducting GWR compliance monitoring for 4-log treatment of viruses and is notified of a positive total coliform result under the Total Coliform Rule (TCR) routine sampling. Triggered source water monitoring is used to determine if fecal contamination is present in the ground water source. If a triggered source water sample is positive for a fecal indicator, the state will require that the system either take corrective action or collect five additional samples from the same source within 24 hours of notification of the fecal indicator-positive result and analyze them for a fecal indicator. If any one of the five additional samples is fecal indicator-positive, the system must take corrective action.

WHAT IS COMPLIANCE MONITORING?

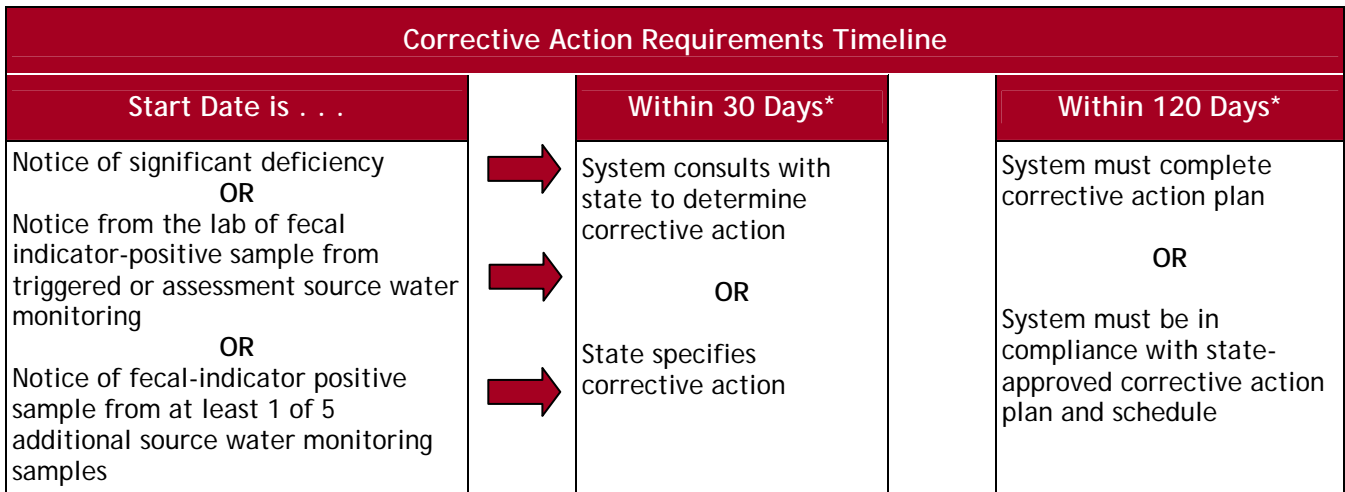
Systems providing at least 99.99 percent (4-log) treatment of viruses (using inactivation, removal, or a state-approved combination of inactivation and removal) of all of their ground water can notify the state of this treatment and are then not required to conduct triggered source water monitoring. Those systems are, however, required to conduct compliance monitoring to show they are providing consistent and sufficient treatment. Compliance monitoring requirements depend on the system’s size and the type of treatment it is using.

For more information on source water monitoring and compliance monitoring, please refer to “Ground Water Rule Factsheet: Monitoring Requirements.”

WHAT ARE THE CORRECTIVE ACTION REQUIREMENTS?

Corrective action is required for any GWS with a significant deficiency. Some systems with fecal indicator-positive results from their triggered source water monitoring may be required by their states to take corrective action rather than conduct additional source water monitoring. If a system is

instructed to carry out **additional source water monitoring**, corrective action is required if a GWS has a fecal indicator-positive result during the additional source water monitoring. As the figure below shows, systems have four corrective action alternatives.



*Based on date of the notice.

Corrective Action Alternatives Systems must do one or more of the following:
Correct all significant deficiencies
Provide an alternate source of water
Eliminate the source of contamination
Provide treatment that reliably achieves 99.99 percent (4-log) inactivation and/or removal of viruses

WHAT ARE THE COMPLIANCE DEADLINES ASSOCIATED WITH THE GWR?

PWS Requirements	Required Beginning ¹ :
Source water monitoring	December 1, 2009
Corrective actions	
Compliance monitoring ²	
	Required By ¹ :
Notification of 4-log treatment of viruses ²	December 1, 2009
	Required By ¹ :
Complete sanitary surveys for most CWSs	December 31, 2012 (and every 3 years after)
Complete sanitary surveys for NCWSs and remaining CWSs ³	December 31, 2014 (and every 5 years after)

1. Individual states may have earlier compliance requirement dates.

2. If systems providing at least 4-log treatment of viruses want to avoid triggered source water monitoring, they must submit written notification to the state by December 1, 2009, and begin compliance monitoring by December 1, 2009.

3. May include CWSs providing at least 4-log treatment of viruses for all their ground water sources and CWSs that have an outstanding performance record, as determined by the state.

WHAT ARE THE VIOLATIONS ASSOCIATED WITH THE GWR?

If a system is in violation of a GWR requirement, the system must report the problem to the state and notify the public. Note that when a system has a ground water source with a fecal indicator-positive sample, it is a *situation* and not a violation. In accordance with the GWR, the system must still meet the Tier 1 Public Notification (PN) requirements.

Situation or Violation	Report to State	Notify Public ¹	Tier	PN Method
Source water monitoring sample fecal indicator-positive for <i>E. coli</i> , enterococci, or coliphage and not invalidated by the state	Within 24 hours	Within 24 hours	1	TV, hand-delivery, public postings, or other state-approved method (consult your state)
Failure to complete required corrective action	Within 48 hours	Within 30 days	2	Hand-delivery, direct mail, public postings, newspaper, or radio announcements
Failure to comply with a state-approved corrective action plan and schedule ²	Within 48 hours	Within 30 days	2	Hand-delivery, direct mail, public postings, newspaper, or radio announcements
For systems conducting compliance monitoring, failure to maintain 4-log treatment of viruses and restore 4-log treatment within 4 hours	Within 48 hours	Within 30 days	2	Hand-delivery, direct mail, public postings, newspaper, or radio announcements
Failure to conduct required source water monitoring (triggered, additional, or assessment)	Consult your State	Within 12 months	3	CCR ² (consult your state for other specific PN requirements)
Failure to conduct required compliance monitoring	Consult your State	Within 12 months	3	CCR ² (consult your state for other specific PN requirements)
Uncorrected significant deficiency	-	Annually	-	Special Notice ²
Unaddressed fecal contamination (CWSs only)	-	Annually	-	Special Notice in CCR (CWSs only)
1. Systems are required to send a copy of the PN to the state within 10 days of making the notification. 2. Community GWSs may use the Consumer Confidence Report (CCR) to make this notification if it meets the requirement to notify the public within 12 months. NCWSs must use an alternate form of notice approved by their state.				

For more information on GWR notification requirements, please refer to:

- “Ground Water Rule Factsheet: Public Notification, Consumer Confidence Report, and Special Notice Requirements for Community Water Systems” and
- “Ground Water Rule Factsheet: Public Notification and Special Notice Requirements for Non-Community Water Systems.”

ADDITIONAL GUIDANCE MATERIALS

The following guidance materials for states and PWSs have been released or will be released in 2008:

Ground Water Rule: A Quick Reference Guide - This guide provides a description of the GWR and includes critical deadlines and requirements.

www.epa.gov/ogwdw/disinfection/gwr/compliancehelp.html.

Ground Water Rule Factsheets - Including factsheets on GWR general requirements, monitoring requirements, and Public Notice, Consumer Confidence Reports, and Special Notices.

Ground Water Sanitary Survey Guidance Manual. November 2007. EPA 815-D-07-006 - This guidance provides states, tribes, and other primacy agencies with a brief review of the sanitary survey regulatory provisions, give examples of what may constitute a significant deficiency, and provide a checklist of elements that should be evaluated during the course of a sanitary survey inspection. www.epa.gov/ogwdw/disinfection/gwr/compliancehelp.html.

Source Water Assessment Guidance Manual. September 2007. EPA 815-R-07-023 - This guidance provides states, tribes, and other primacy agencies with a brief review of hydrogeologic sensitivity assessments, an overview of the characteristics of a sensitive aquifer, information about how source water assessments may be used, and information about how to determine if a sensitive aquifer has a hydrogeologic barrier. www.epa.gov/ogwdw/disinfection/gwr/compliancehelp.html.

Ground Water Rule Source Water Monitoring Methods Guidance Manual. July 2007. EPA 815-R-07-019 - This guidance provides GWSs, states, tribes, and other primacy agencies with a brief review of the source water monitoring provisions. Primacy agencies may select fecal indicators (e.g., *E. coli*, enterococci, coliphage) that systems would be required to test for in the ground water source sample. The source water monitoring guidance manual provides criteria to assist primacy agencies in their determination of which fecal indicator(s) may be most appropriate. www.epa.gov/ogwdw/disinfection/gwr/compliancehelp.html.

Corrective Action Guidance Manual (under development) - This guidance will provide states, tribes, other primacy agencies and GWSs with an overview of the treatment technique requirements of the GWR. The guidance manual will provide assistance with determining the information that should be included in a system's corrective action plan.

Consecutive System Guide for the Ground Water Rule. July 2007. EPA 815-R-07-020 - This guidance describes the regulatory requirements of the GWR that apply to wholesale GWSs and the consecutive systems that receive and distribute that ground water supply. www.epa.gov/ogwdw/disinfection/gwr/compliancehelp.html.

Complying with the Ground Water Rule: Small Entity Compliance Guide: One of the Simple Tools for Effective Performance (STEP) Guide Series. July 2007. EPA 815-R-07-018 - This document is intended to be an official compliance guide to the GWR for small PWSs, as required by the Small Business Regulatory Enforcement Fairness Act of 1996. This guide contains a general introduction and background for the GWR, describes the specific requirements of the GWR and provides information on how to comply with those requirements. www.epa.gov/ogwdw/disinfection/gwr/compliancehelp.html.

For additional information, please contact the Safe Drinking Water Hotline at 1-800-426-4791, or visit www.epa.gov/safewater/disinfection/gwr.