

Ground Water Rule Overview

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Overview

- Purpose
- Components
- Process

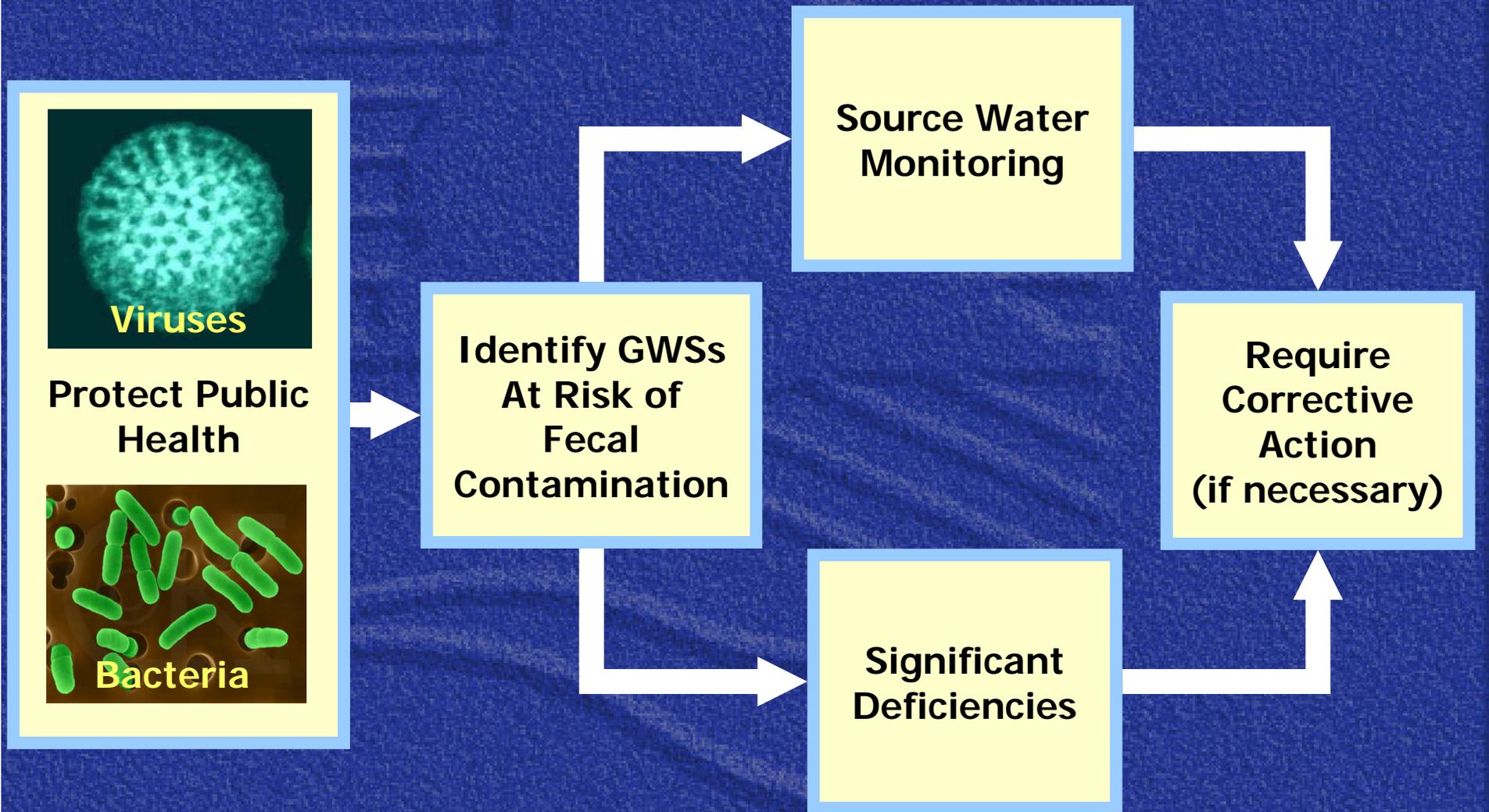
Purpose of the Ground Water Rule (GWR)

Provides increased protection against microbial pathogens in public water systems that use ground water sources.

GWR Regulation

- Applies to all PWS using ground water
- Texas: **5,637** GW systems and **381** PWS purchasing water from a GW source
- PWS in Texas use **13,406** GW sources
- Compliance date = December 1, 2009

Primary Purpose of the GWR



To Whom Does the GWR Apply?

1
Systems
relying 100%
on ground
water

2
Consecutive
systems
receiving
ground water

3
Mixed
surface &
ground water
systems*

***Exception (if all ground water goes through the treatment process of surface water)**

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Key Provisions of the GWR

**Sanitary Surveys
of all GWSs**

**Source Water
Monitoring**

**Corrective Actions
for Significant
Deficiencies &
Fecal
Contamination**

**Compliance
Monitoring**

Periodic Sanitary Surveys

- For CWS every 3 years, unless they meet the performance criteria, then every 5 years
 - Provides 4-log treatment of viruses
 - Outstanding performance record
- For NCWS every 5 years

Source Water Monitoring Scenarios

- Two possibilities:

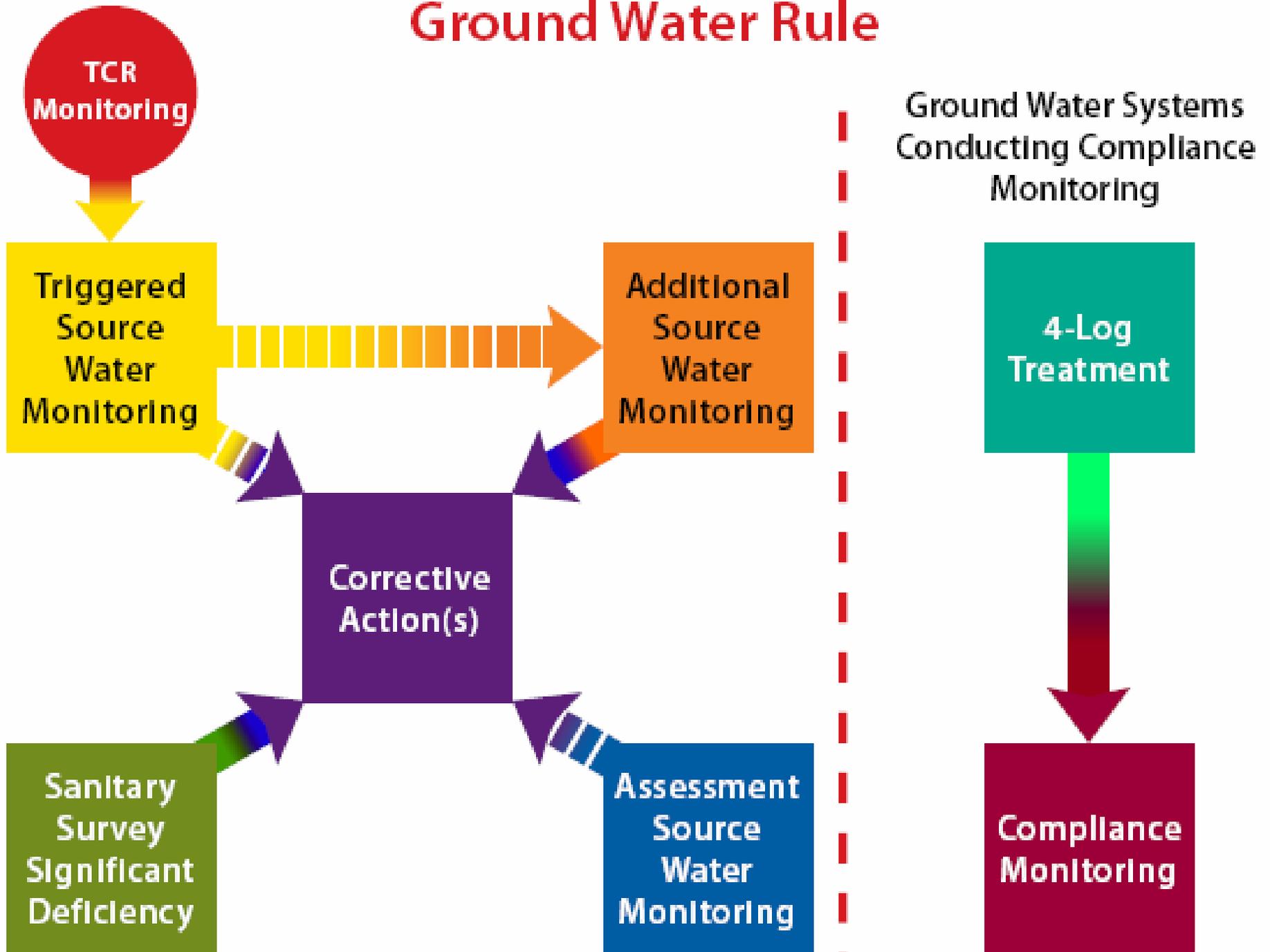
**ASSESSMENT SOURCE WATER
MONITORING**

**TRIGGERED SOURCE WATER
MONITORING**

Compliance Monitoring

- GWSs that:
 - Provide 4-log treatment of viruses at or before the first customer using:
 - Inactivation
 - Removal
 - State-approved combination of 4-log inactivation & removal
 - Notify the state in writing of existing treatment or provide 4-log treatment as a corrective action
 - Begin compliance monitoring

Ground Water Rule



Triggered Source Water Monitoring

GWSs must conduct triggered source water monitoring if they:

- **Are notified of a TC-positive TCR routine sample, and**
- **Are NOT conducting GWR compliance monitoring for their 4-log treatment**

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Implementation Timeline

SYSTEM

GWSs choosing to conduct compliance monitoring must notify state that they provide 4-log treatment

1. Source water monitoring (triggered & assessment)
2. Corrective actions
3. Compliance monitoring
4. New source requirements

Rule Promulgation (11/8/2006)

12/1/2009

12/31/2012

December 31, 2014

PRIMACY AGENCY

11/8/2008

11/8/2010

Complete 1st round of sanitary surveys for CWSs on a 3-year schedule

Complete 1st round of sanitary surveys for NCWSs & CWSs on a 5-year schedule

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Relationship with the TCR

- TCR and GWR work together
- Samples in distribution system may indicate a problem in source
- Total coliform-positive sample under the TCR will trigger source water monitoring

Acronyms

CT	The residual concentration of disinfectant (mg/L) multiplied by the contact time (minutes)
Consecutive System	PWS that receives some or all of its finished water from a wholesale system(s)
TCR	Total Coliform Rule
GWR	Ground Water Rule
GWS	Ground Water System
CWS	Community Water System
NCWS	Noncommunity Water System
DBPR	Disinfectants and Disinfection Byproducts Rule
SWTR	Surface Water Treatment Rule
LCR	Lead and Copper Rule
Wholesale System	PWS that sells finished water to one or more consecutive systems

GWR Compliance Dates?

PWS Requirements

Required By:

Notification of 4-log treatment of viruses	December 1, 2009
Triggered source water monitoring	December 1, 2009
Corrective actions	
Compliance monitoring	
New sources placed in service must meet triggered source water monitoring requirements or conduct compliance monitoring for 4-log treatment of water	
States can require GWSs to conduct assessment source water monitoring	

Required Beginning:

State Requirements

Required By:

Complete sanitary surveys for most CWSs	December 31, 2012 (& every 3 years after)
Complete sanitary surveys for NCWSs & remaining CWSs	December 31, 2014 (& every 5 years after)