

The Final Ground Water Rule (Finally!)

Alaska DEC SWTR Workshop

OVERVIEW OF THE GROUND WATER RULE

- Applies to all systems serving ground water
- Builds on existing State Programs
- Targeted, risk-based approach; no mandatory disinfection
- State flexibility (defining significant deficiencies, corrective action approach, State options for source assessments and/or monitoring)
- Compliance begins December 2009

FINAL GWR REQUIREMENTS

1. Sanitary Surveys

- Conduct every 3 years for CWS; 5 years for NCWS and some CWSs
- Evaluate 8 elements
- Identify significant deficiencies
- Require corrective action

FINAL GWR

2a. Triggered Source Water Monitoring

- Systems that do not provide 4-log inactivation/removal of viruses
- Triggered by a total coliform-positive sample collected under the TCR
- PWS must collect and analyze source water sample

FINAL GWR REQUIREMENTS

2b. Triggered Source Water Monitoring

- If source sample is fecal indicator-positive either collect 5 additional source samples or (State option) take corrective action
- If any of the 5 additional samples is fecal indicator positive PWS must take corrective action.

FINAL GWR REQUIREMENTS

2c. Source Water Monitoring Fecal Indicators

- State selects fecal indicator
 - *E. coli*
 - Enterococci
 - Coliphage (male specific or somatic coliphage)

FINAL GWR REQUIREMENTS

3. Assessment Source Water Monitoring

- State option -PWSs must collect and analyze source water samples if State directs
- State can set schedule and frequency (may require monthly sampling for at least one year)
- State may require corrective action for fecal indicator-positive source sample

FINAL GWR REQUIREMENTS

4. Corrective Action

- IF a GWS
 - Has a significant deficiency identified or detects a fecal indicator in source water (any of the 5 additional or at State direction)
- THEN
 - It must take corrective action within 120 days, or on a State approved/directed schedule
- System has 30 days to consult with State about corrective approach (State can direct specific corrective action and schedule)
- Correct action approaches include the following:
 - eliminate source of contamination
 - correct significant deficiency
 - provide alternate source of water
 - 4-log inactivation and/or removal of viruses

FINAL GWR REQUIREMENTS

5. Compliance Monitoring

- Chemical disinfection – monitor disinfectant residual and meet minimum/maximum residual.
 - Continuously- serving $>3,300$
 - daily -serving $< 3,300$
- Membrane filtration – ensure membrane is intact and meet State specified operating criteria.
- Other State approved alternative technologies must meet State specified operating and performance criteria.

FINAL GWR

Hydrogeologic Sensitivity Assessment (HSA)

- 2000 Proposed Rule requirement, not part of the final rule
- Assessment of sources in sensitive aquifers(karst, gravel, fractured bedrock or other)
- EPA recommends (final rule preamble) as a basis for assessment source water monitoring
- Final GWR requires PWS to supply State with information needed if States choose to conduct HSAs

Final GWR

Source Water Protection

- Sources with fecal indicator-positive samples are subject corrective actions-correct deficiencies, eliminate source of contamination
- Sources subject to corrective action-source protection measures as a corrective action or combined with additional corrective actions
- Sources subject to corrective action-correction of well, wellhead deficiencies

Final GWR

Source Water Protection

- Vulnerable sources (SWA) States can conduct HSAs or require Assessment Monitoring
- Vulnerable sources with identified PCAs-States can require monitoring or corrective action

<http://www.epa.gov/safewater/disinfection/gwr/index.html>

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